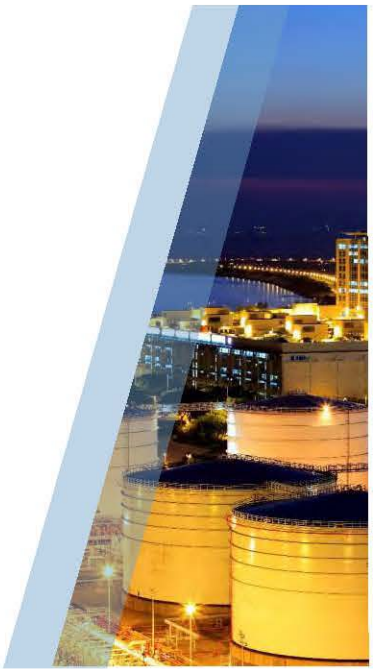
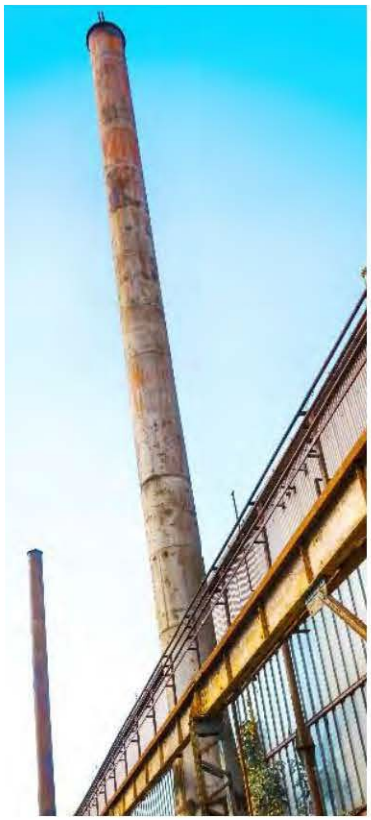
Site Investigation Summary Report

Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington
Facility Site ID: 47231541

Phillips 66 Company





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1. Introduction

GHD is submitting this *Site Investigation Summary Report* for the former Union Oil bulk fuel facility 0978 on behalf of Phillips 66 Company (P66). The scope of work was completed in accordance with the *Site Assessment Work Plan* dated January 3, 2019 (Work Plan) for the property located at 1300 West 12th Street, Vancouver, Clark County, Washington (Property, Figure 1). The purpose of the site assessment was to collect additional information necessary to complete the remedial investigation in accordance with Washington Administrative Code (WAC) 173-340-350. This report summarizes the findings of the investigation activities that were completed from May 28 through July 19, 2019.

2. Site Description and Background

The Property is a former Union Oil bulk fuel facility and now operates as a used oil collection, treatment, and resale facility owned by Emerald West, LLC. Facility features consist of 16 aboveground storage tanks (ASTs), one storage and two facility buildings, wastewater and heating oil ASTs, three underground storage tanks (USTs), oil/water separators, pipelines, a loading rack, processing units, and storage areas.

The Property is bounded to the north by a parking lot associated with an iron and steel manufacturing facility, to the west and south by BNSF railway, and to the east by residential properties and a homeless shelter. The Washington State Department of Ecology's (Ecology) Model Toxics Control Act (MTCA) site (Site) is defined as all affected areas from the petroleum release associated with the Property and potentially adjacent parcels. Based on the historical investigation results, the Site boundary is presented on Figure 2. An area map identifying surrounding property use is provided as Figure 3. A Soil Investigation Map is provided as Figure 4.

The Site is comprised of one tax parcel, totaling approximately 0.93 acre and is located in Clark County (Clark County Tax Parcel Number 59890000). Surface elevation of the Site is approximately 50 feet above mean sea level (amsl) with approximately 15 feet of relief from east to west.

Site Geology and Hydrogeology

The Site is located within the Portland basin. The Columbia River is the primary local drainage, located approximately 0.35 miles south-southwest of the Site. According to the Washington State Department of Natural Resources, the Site and immediate area surrounding consists of Pleistocene outburst flood deposits of gravel and sandy gravel deposits with interbedded silt lenses.

Based on historical environmental investigations and the most recent soil investigation, the Site is primarily underlain by fine to course grained silty sand with gravel and cobbles from ground surface to a depth ranging between 2 and 11 feet below ground (fbg), and fine to coarse grained sand with occasional gravel from 5 to 70 feet fbg, the maximum depth explored. Groundwater at the Site is present at depths ranging between approximately 35 to 59 feet fbg.

3. Summary of Site Investigation Activities

GHD oversaw the advancement of two soil borings (B-17 and B-18) and the installation of four groundwater monitoring wells (MW-7 through MW-10) to evaluate the current Site conditions, and vertically and/or laterally delineate previously identified petroleum hydrocarbon impacts to soil and groundwater to complete definition of the MTCA boundary.

Prior to field activities, GHD notified the Washington State One Call Utility Notification Service (One Call) more than 48 hours prior to field activities to clear the soil boring locations with public utility companies. GHD also contracted Underground Locating Services (ULS) to conduct a private utility survey to further identify potential subsurface utilities and underground obstructions in the vicinity of the proposed boring locations. Soil boring and well locations were cleared to 5 fbg using an air knife and vacuum truck to ensure no unidentified underground utilities or obstructions were located beneath the ground surface.

3.1 Deviations from Work Plan

Due to conditions encountered in the field and off-property access delays, the following deviations from the Work Plan were necessary during implementation of this investigation:

- Proposed wells A and B were not installed due to access agreement issues.
- Wells MW-7 and MW-8 were advanced 20 feet deeper and well MW-9 was advanced 10 feet shallower than originally proposed based on the depth of the observed groundwater.
- Soil boring B-18 was advanced approximately five feet shallower than originally proposed given the absence of observed impacts.
- Given the absence of total petroleum hydrocarbon (TPH) exceedances in the soil analytical results from borings B-17 and B-18, the collected samples were not analyzed for cPAHs, polychlorinated biphenyls (PCBs), n-hexane, volatile petroleum hydrocarbons (VPH) and/or extractable petroleum hydrocarbons (EPH).

3.2 Soil Borings

On May 30 and 31, 2019 and June 3 through 6, 2019, Holt Services, Inc. (Holt) of Edgewood, Washington, advanced the two soil borings and installed the four groundwater monitoring wells under the supervision of GHD field personnel. The borings were advanced to depths ranging from 10.3 to 10.5 fbg, and the groundwater monitoring wells were installed to depths ranging from 50 to 70 fbg. The soil boring locations are presented on Figure 2.

Soil borings were advanced from 0 to 5 fbg via vacuum truck/air knife, and 5 feet to termination depth using a hand auger or truck mounted hollow stem auger drill rig. Soil encountered in each boring during drilling activities was logged in accordance with American Society for Testing and Materials' (ASTM) Unified Soil Classification System (USCS) standard D2488 by experienced environmental personnel. Soil samples were screened continuously from the soil cores for volatile organic compounds (VOCs) using a photoionization detector (PID) as well as visual observation. Boring logs with lithologic descriptions and PID readings are provided in Appendix B.

3.3 Soil Sampling

Soil samples were collected for laboratory analysis based on intervals that impacts were historically identified, within the vadose zone, and/or at the soil/water interface. PID readings above one part per million (ppm), or visual or olfactory observations of impacts were not observed in the borings or wells advanced during this investigation. Soil samples were immediately placed on ice and shipped to Pace Analytical Services, LLC in Minneapolis, Minnesota under chain of custody. A total of 13 soil samples were analyzed for one or more of the following:

- TPH gasoline-range (TPHg) by NWTPH-Gx
- TPH diesel-range (TPHd) and TPH oil-range (TPHo) by NWTPH-Dx
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), Halogenated volatile organic compounds (HVOCs), naphthalene, methyl t-butyl ether (MTBE), dibromoethane (EDB), and dichloroethane (EDC) by Environmental Protection Agency (EPA) Method 8260B
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by EPA Method 8270D Select Ion Monitoring (SIM)
- Lead by EPA Method 6010

3.4 Monitoring Well Installation

Monitoring wells MW-7 and MW-8 were installed to a depth of approximately 70 fbg. Monitoring wells MW-9 and MW-10 were installed to a depth of approximately 50 fbg. The wells were constructed with 15 feet of polyvinyl chloride (PVC), 0.010-inch slot screen, flush threaded with PVC blank well casing from the top of the screen to the ground surface. The well annulus was backfilled with a 12/20 sand pack to 3 feet above the screen and sealed with hydrated bentonite chips above the filter pack to approximately 2 fbg. The wells were finished at the surface with flush mount, traffic rated well boxes set in a concrete surface seal extending to 2 fbg. A depiction of the well construction details is presented on the boring logs in Appendix B.

3.5 Well Development, Surveying, and Groundwater Monitoring

After installation of wells MW-7 through MW-10, Holt developed each well by surging the well screen to promote groundwater flow into the well casing, followed by purging of approximately 30 to 35 gallons.

GHD contracted Statewide Land Surveying of Gresham, Oregon on July 11, 2019 to complete a professional survey of the monitoring wells and other select site features. The survey data is provided in Appendix C.

Subsequently, on July 19, 2019, GHD subcontracted Blaine Tech Services, Inc. (BTS) of Kent, Washington to perform groundwater monitoring at the Site. Groundwater monitoring included sampling existing wells MW-1, MW-2, MW-4, MW-5A, and MW-6 through MW-10. Depth to groundwater ranged from 42.73 to 58.87 feet below top of casing (TOC); however, the groundwater gradients were too shallow to calculate and confirm a dominant flow direction. Observed groundwater flow directions were to the northwest, east, and south. Light non-aqueous phase liquid

(LNAPL) was not detected in any of the wells gauged. Groundwater elevation data is presented in Table 2.

Samples collected during the event were placed immediately on ice and transported to Pace under chain of custody procedures.

4. Site Investigation Results

4.1 Soil Analytical Results

A total of 13 soil samples were submitted for laboratory analyses. Results of laboratory analysis for the soil samples collected from borings B-17 and B-18, and wells MW-7 and MW-10 did not contain concentrations of any analytes above MTCA Method A cleanup levels.

Soil analytical results are presented on Table 1. A Soil Investigation Data Map is included as Figure 4. The laboratory analytical report is presented in Appendix D.

4.2 Groundwater Analytical Results

Groundwater monitoring activities included Site wells MW-1, MW-2, MW-4, MW-5A, and MW-6 through MW-10. The collected groundwater samples did not have concentrations of the contaminants of concern above laboratory reporting limits and/or respective MTCA cleanup levels. Wells MW-1, MW-2, MW-4, MW-5A, MW-7, MW-9, and MW-10 did have concentrations of tetracholorethene (PCE) ranging from 1.0 to 4.1 micrograms per liter (µg/L), which are below the MTCA Method A cleanup level of 5 µg/L. Chloroform was also detected in wells MW-2, MW-8, and MW-9 at concentrations of 2.5, 1.3, and 3.5 µg/L, respectively, which are below the MTCA Method B non-cancer cleanup level of 80 µg/L. Cumulative groundwater analytical results are presented in Table 2. Analytical reports are included in Appendix D. A groundwater elevation and hydrocarbon concentration map for the July 2019 event is presented on Figure 5.

4.3 Waste Disposal

Investigation derived waste including soil cuttings and decontamination water was placed in 55-gallon steel drums and labeled as pending analysis. A total of fifteen 55-gallon drums of soil cuttings and seven 55-gallon drums of decontamination cleaning and well development water were transported to Waste Management by DH Environmental, Inc. on July 11, 2019. Waste disposal documentation is included in Appendix E.

5. Conclusions and Recommendations

A total of six borings were advanced, four of which were completed as groundwater monitoring wells, to delineate soil and/or groundwater impacts at the Site. The contaminants of concern were not detected in the analyzed soil and groundwater samples at concentrations above laboratory reporting limits and/or MTCA cleanup levels. Based on the results of the site investigation, previously identified soil impacts within the vicinity of the hot oil heater AST have degraded and are

no longer present. Additionally, historical TPHo and/or lead impacts on the southeastern portion of the Property have been delineated. Lastly, PCE impacts in groundwater have been defined to the east, southeast, and south.

The MTCA boundary remains undefined to the west and northwest. Once access is acquired to the adjoining properties, the two remaining wells will be installed to the west and northwest per the Work Plan.

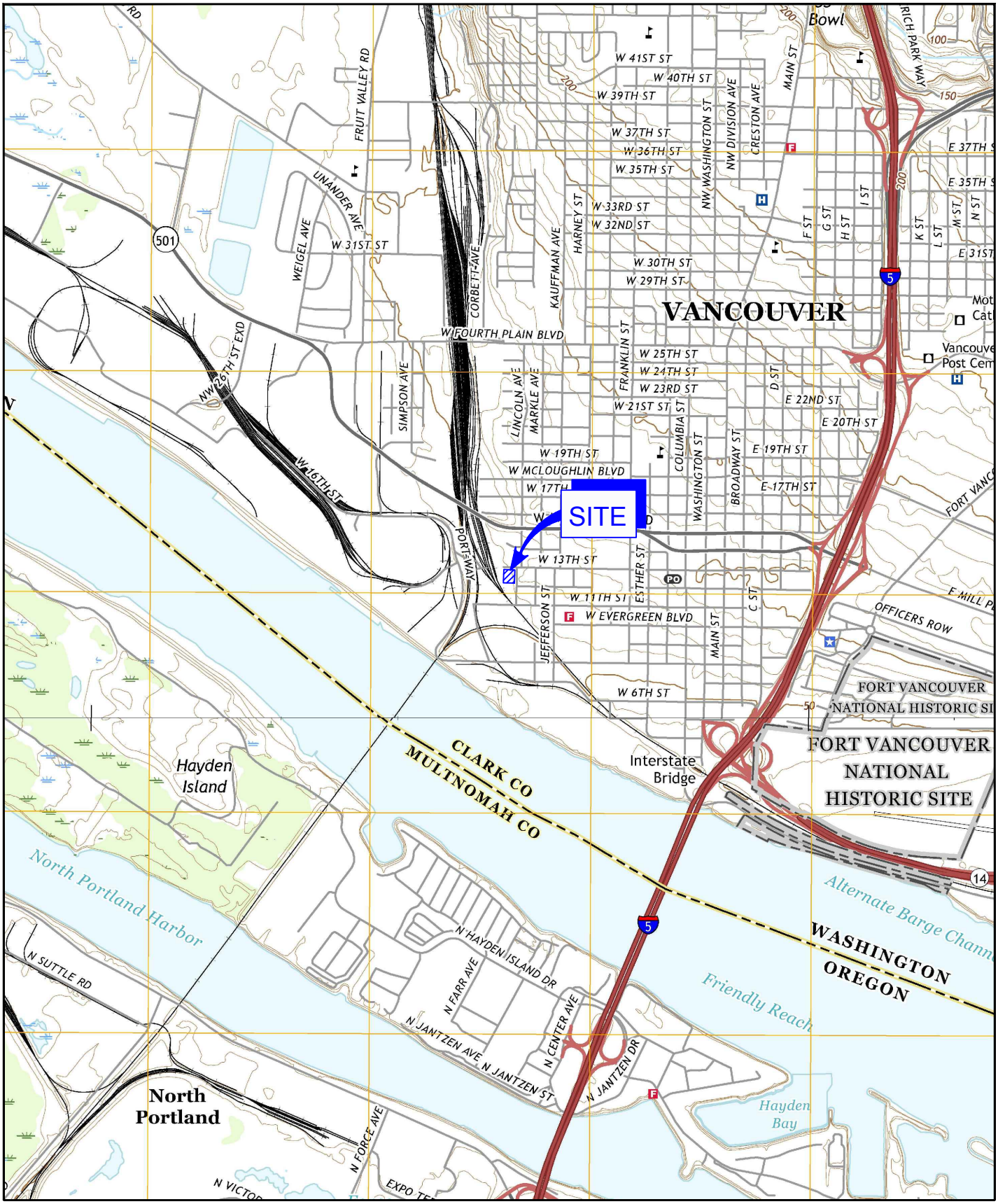
All of Which is Respectfully Submitted,

GHD

Emily Blakeway

Matthew Davis, LG

Figures



Source: USGS QUAD MAPS; VANCOUVER, WA, AND PORTLAND, OR, 2017.

0 1000 2000ft

Coordinate System:
WASHINGTON SOUTH
NAD83

PHILLIPS 66 SITE 0978
1300 WEST 12TH STREET
VANCOUVER, WASHINGTON

11145925-95

Aug 29, 2019

VICINITY MAP

FIGURE 1

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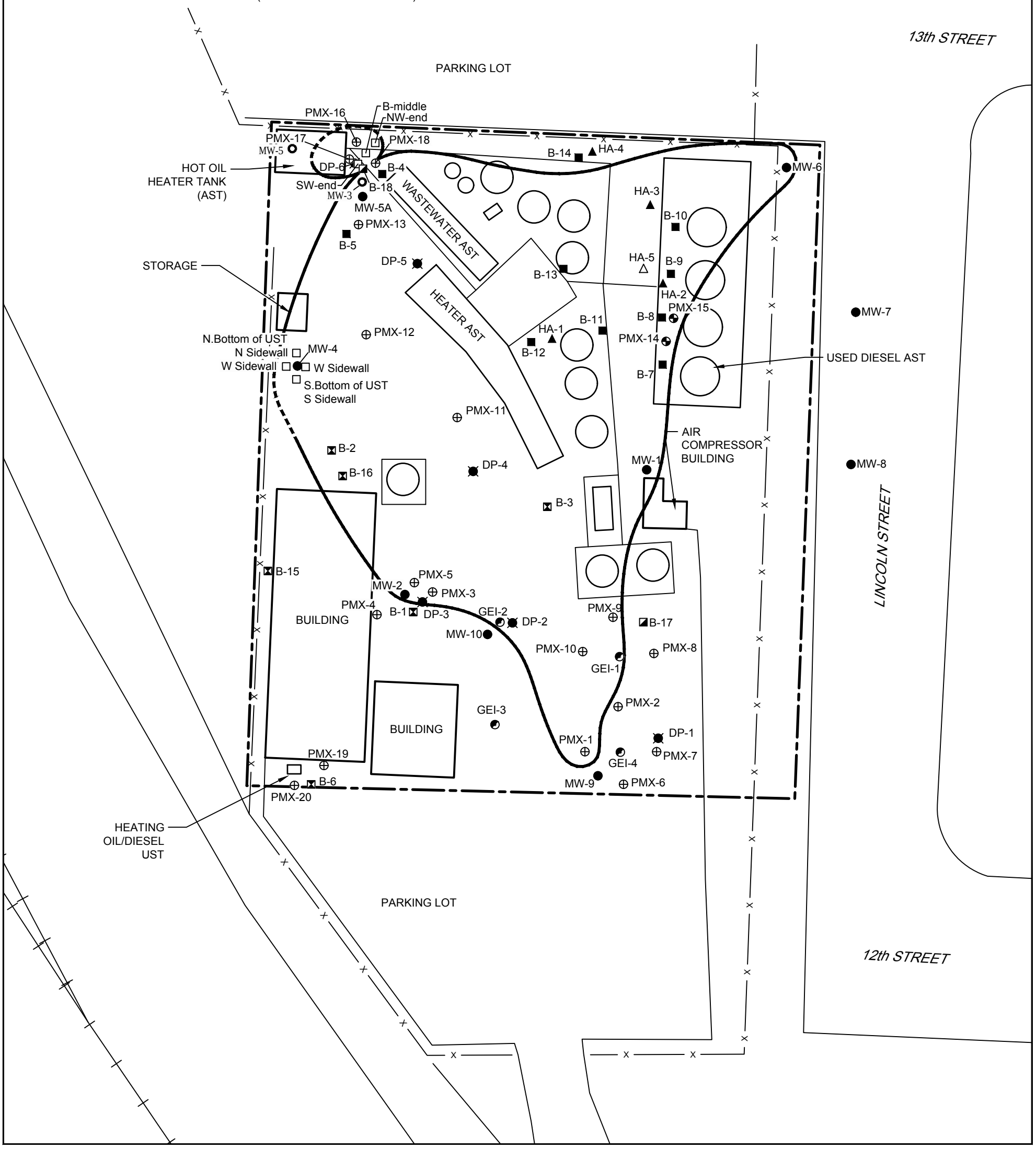
LEGEND

- APPROXIMATE SITE BOUNDARY
- FENCE
- MW-1 MONITORING WELL LOCATION
- B-7 HAND AUGER BORING LOCATION (PACIFIC ENVIRONMENTAL GROUP, 1997)
- B-3 GEOPROBE BORING LOCATION (PACIFIC ENVIRONMENTAL GROUP, 1997)
- B-17 HOLLOW STEM AUGER BORING LOCATION (GHD, 2019)
- HA-2 HAND AUGER BORING LOCATION (GEOENGINEERS, 1998)
- GEI-1 HOLLOW STEM AUGER BORING LOCATION (GEOENGINEERS, 1998)
- W SIDEWALL UST SOIL SAMPLE LOCATION (CET SERVICES, 1998)
- PMX-1 GEOPROBE BORING LOCATION (PARAMETRIX, 1999)
- PMX-17 HANG AUGER BORING LOCATION (PARAMETRIX, 1999)
- NW-end UST SOIL SAMPLE LOCATION (ATC ASSOCIATES, 2000)
- DP-1 DIRECT PUSH BORING LOCATION (GEOENGINEERS, 2003)
- HA-5 HAND AUGER BORING LOCATION (GEOENGINEERS, 2003)
- MW-3 DECOMMISSIONED GROUNDWATER MONITORING WELL LOCATION
- MTCA SITE BOUNDARY (DASHED WHERE INFERRED)



Source: STANTEC, JOB 212302391 (0978), SITE PLAN, JUNE 2010.

0 15 30ft

Coordinate System:
WASHINGTON SOUTH
NAD83

PHILLIPS 66 SITE 0978
1300 WEST 12TH STREET
VANCOUVER, WASHINGTON

11145925-95

No□21, 2019

SITE PLAN

FIGURE 2

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Source: Microsoft Product Screen Shot(s) Reprinted with permission from Microsoft Corporation, Accessed: 2018

0 50 100ft

Coordinate System:
WASHINGTON SOUTH
NAD83

PHILLIPS 66 SITE 0978
1300 WEST 12TH STREET
VANCOUVER, WASHINGTON

11145925-95

Jul 24, 2018

AREA MAP

FIGURE 3

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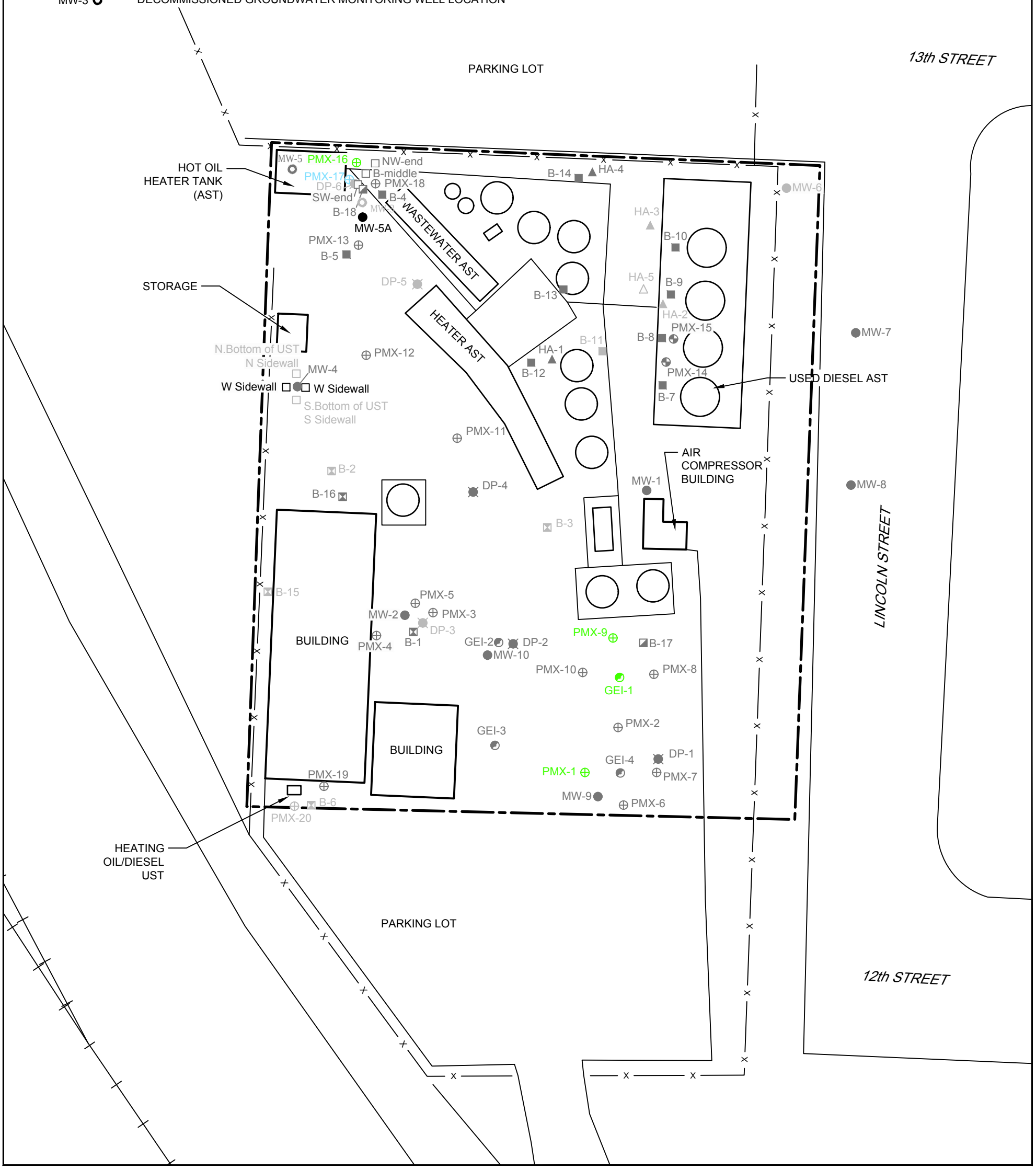
LEGEND

- APPROXIMATE SITE BOUNDARY
- FENCE
- MW-1 MONITORING WELL LOCATION
- B-7 HAND AUGER BORING LOCATION (PACIFIC ENVIRONMENTAL GROUP, 1997)
- B-3 GEOPROBE BORING LOCATION (PACIFIC ENVIRONMENTAL GROUP, 1997)
- B-17 HOLLOW STEM AUGER BORING LOCATION (GHD, 2019)
- HA-2 HAND AUGER BORING LOCATION (GEOENGINEERS, 1998)
- GEI-1 HOLLOW STEM AUGER BORING LOCATION (GEOENGINEERS, 1998)
- W SIDEWALL UST SOIL SAMPLE LOCATION (CET SERVICES, 1998)
- PMX-1 GEOPROBE BORING LOCATION (PARAMETRIX, 1999)
- PMX-17 HANG AUGER BORING LOCATION (PARAMETRIX, 1999)
- NW-end UST SOIL SAMPLE LOCATION (ATC ASSOCIATES, 2000)
- DP-1 DIRECT PUSH BORING LOCATION (GEOENGINEERS, 2003)
- HA-5 HAND AUGER BORING LOCATION (GEOENGINEERS, 2003)
- MW-3 DECOMMISSIONED GROUNDWATER MONITORING WELL LOCATION

- INDICATES ALL SOIL CONCENTRATIONS WERE BELOW MTCA METHOD A LABORATORY REPORTING LIMITS
- INDICATES AT LEAST ONE SOIL CONCENTRATION WAS DETECTED ABOVE LABORATORY REPORTING LIMITS, BUT NO SOIL CONCENTRATION EXCEEDED MTCA METHOD A SCREENING LEVELS
- INDICATES AT LEAST ONE SOIL CONCENTRATION WAS DETECTED ABOVE MTCA METHOD A SCREENING LEVELS
- INDICATES HISTORICAL SOIL EXCEEDANCE SUBSEQUENTLY CONFIRMED TO BE UNDER MTCA METHOD A CLEAN UP LEVELS



Source: STANTEC, JOB 212302391 (0978), SITE PLAN, JUNE 2010.

0 15 30ft

Coordinate System: WASHINGTON SOUTH NAD83

PHILLIPS 66 SITE 0978
1300 WEST 12TH STREET
VANCOUVER, WASHINGTON

11145925-95

No□21, 2019

SOIL INVESTIGATION DATA MAP

FIGURE 4

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LEGEND

- APPROXIMATE SITE BOUNDARY
- FENCE
- MW-1 ● MONITORING WELL LOCATION
- (8.68) GROUNDWATER ELEVATION (FEET AMSL)
- 53.40 GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN SEA LEVEL (FT MSL), DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- * INDICATES DUPLICATE SAMPLE

MW-1	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	1.1

SAMPLE LOCATION

RESULT

PARAMETER

NOTES:
1. TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE.
2. B = BENZENE
3. T = TOLUENE
4. E = ETHYLBENZENE
5. X = TOTAL XYLENES
6. PCE = TETRACHLOROETHYLENE

MW-5A	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	4.1

MW-6	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	<1.0

MW-7	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	1.0

MW-4	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	3.1

MW-8	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	<1.0

MW-2		
TPHg	<100	<100*
B	<1.0	<1.0*
T	<1.0	<1.0*
E	<1.0	<1.0*
X	<3.0	<3.0*
PCE	1.5	1.4*

MW-1	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	1.1

MW-10	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	1.5

MW-9	
TPHg	<100
B	<1.0
T	<1.0
E	<1.0
X	<3.0
PCE	1.2

13th STREET

12th STREET

LINCOLN STREET

HOT OIL HEATER TANK (AST)

WASTEWATER AST

HEATER AST

STORAGE

USED DIESEL AST

AIR COMPRESSOR BUILDING

BUILDING

BUILDING

HEATING OIL/DIESEL UST

PARKING LOT

PARKING LOT

MW-1 (8.78)

MW-2 (8.77)

MW-4 (8.79)

MW-5A (8.68)

MW-6 (8.78)

MW-7 (8.70)

MW-8 (8.76)

MW-9 (8.75)

MW-10 (8.73)

8.70

8.75

Source: STANTEC, JOB 212302391 (0978), SITE PLAN, JUNE 2010.

0 15 30ft

Coordinate System: WASHINGTON SOUTH NAD83

PHILLIPS 66 SITE 0978
1300 WEST 12TH STREET
VANCOUVER, WASHINGTON

GROUNDWATER ELEVATION AND HYDROCARBON CONCENTRATION MAP - JULY 19, 2019

11145925-95

Sep 9, 2019

FIGURE 5

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Tables

Table 1

Summary of Soil Analytical Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Boring/ Well ID	Sample ID	Date Sampled	Sample Depth (feet)	TPH 418.1 (mg/kg)	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	PCE (mg/kg)	Total Lead (mg/kg)
MTCA Method A Cleanup Level					**100/30***	**2,000**		**0.03**	**7**	**6**	**9**	**0.1**	**0.05**	**250**
B-1	B-1	9/22/1997	4	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-1	9/22/1997	12	--	6.11	159	698	<0.050	<0.050	<0.050	<0.050	--	--	--
B-2	B-2	9/22/1997	4	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
B-3	B-3	9/22/1997	4	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-3	9/22/1997	12	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
B-4	B-4	9/22/1997	2	--	<2.00	787	1,650	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-4	9/22/1997	2.5	--	<2.00	641	1,120	<0.050	<0.050	<0.050	<0.050	--	--	--
B-5	B-5	9/22/1997	4	--	4.22	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-5	9/22/1997	12	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
B-6	B-6	9/22/1997	4	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-6	9/22/1997	12	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
B-7	B-7	9/22/1997	2	--	<2.00	509	1,350	<0.050	<0.050	<0.050	<0.050	--	--	--
B-8	B-8	9/22/1997	2	--	<2.00	819	1,400	<0.050	<0.050	<0.050	<0.050	--	--	--
B-9	B-9	9/22/1997	2	--	43.1	1,900	563	<0.050	<0.050	<0.050	<0.050	--	--	--
B-10	B-10	9/22/1997	2	--	<2.00	904	357	<0.050	<0.050	<0.050	<0.050	--	--	--
B-11	B-11	9/22/1997	2	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
B-12	B-12	9/22/1997	2	--	<2.00	442	265	<0.050	<0.050	<0.050	<0.050	--	--	--
B-13	B-13	9/22/1997	2	--	<2.00	<25	60.4	<0.050	<0.050	<0.050	<0.050	--	--	--
B-14	B-14	9/22/1997	2	--	<2.00	258	1,310	<0.050	<0.050	<0.050	<0.050	--	--	--
B-15	B-15	9/22/1997	4	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-15	9/22/1997	12	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
B-16	B-16	9/22/1997	4	--	<2.00	197	233	<0.050	<0.050	<0.050	<0.050	--	--	--
	B-16	9/22/1997	12	--	<2.00	<25	<50	<0.050	<0.050	<0.050	<0.050	--	--	--
HA1	HA1-5.0	6/26/1998	5.0	--	--	274	60.4	--	--	--	--	--	--	--
	HA1-7.5	6/26/1998	7.5	--	--	37.3	<50.0	--	--	--	--	--	--	--
HA2	HA2-2.5	6/29/1998	2.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
HA3	HA3-2.5	6/29/1998	2.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
HA4	HA4-2.5	6/29/1998	2.5	--	--	<25.0	97.1	--	--	--	--	--	--	--
	HA4-5.0	6/29/1998	5.0	--	--	<25.0	191	--	--	--	--	--	--	--
GEI1	GEI1-6.0	6/26/1998	6.0	--	--	<25.0	<50.0	--	--	--	--	--	--	--
	GEI1-11.0	6/26/1998	11.0	--	--	<125	**2,350**	--	--	--	--	--	--	--
	GEI1-13.5	6/26/1998	13.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
GEI2	GEI2-5.5	6/26/1998	5.5	--	--	44.1	157	--	--	--	--	--	--	--
	GEI2-10.0	6/26/1998	10.0	--	--	<25.0	<50.0	--	--	--	--	--	--	--
GEI3	GEI3-3.5	6/26/1998	3.5	--	--	87.9	55.3	--	--	--	--	--	--	--
	GEI3-11.5	6/26/1998	11.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
GEI4	GEI4-6.0	6/26/1998	6.0	--	--	74.1	<50.0	--	--	--	--	--	--	--
	GEI4-10.5	6/26/1998	10.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
MW1	MW1-2.5	6/25/1998	2.5	--	--	57.1	127	--	--	--	--	--	--	--
	MW1-10.0	6/25/1998	10.0	--	--	<25.0	<50.0	--	--	--	--	--	--	--

Summary of Soil Analytical Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Boring/ Well ID	Sample ID	Date Sampled	Sample Depth (feet)	TPH 418.1 (mg/kg)	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	PCE (mg/kg)	Total Lead (mg/kg)
MTCA Method A Cleanup Level					**100/30***	**2,000**		**0.03**	**7**	**6**	**9**	**0.1**	**0.05**	**250**
MW2	MW2-10.0	6/25/1998	10.0	--	5.18	<25.0	<50.0	--	--	--	--	--	--	--
	MW2-16.5	6/25/1998	16.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
MW3	MW3-4.0	6/25/1998	4.0	--	<4.00	<25.0	658	--	--	--	--	--	--	--
	MW3-11.5	6/25/1998	11.5	--	--	<25.0	<50.0	--	--	--	--	--	--	--
	S.Bottom UST (01-4441)	11/11/1998	10.25	100	<13	<26	--	--	--	--	--	--	--	--
	N. Bottom UST (02-4441)	11/11/1998	10.2	60	<13	<26	--	--	--	--	--	--	--	--
	E Sidewall (04-4441)	11/11/1998	9.11	110	--	--	--	--	--	--	--	--	--	--
	W Sidewall (05-4441)	11/11/1998	10.0	14	--	--	--	--	--	--	--	--	--	--
	S Sidewall (06-4441)	11/11/1998	10	25	--	--	--	--	--	--	--	--	--	--
	N Sidewall (07-4441)	11/11/1998	10.1	18	--	--	--	--	--	--	--	--	--	--
PMX-1	PMX-1 4'	09/8-9/99	4	--	7.15	89.7	295	--	--	--	--	--	--	**503**
PMX-2	PMX-2 7'	09/8-9/99	7	--	5.27	<25	<50	--	--	--	--	--	--	<10
PMX-3	PMX-3 2'	09/8-9/99	2	--	6.28	<250	1,560	--	--	--	--	--	--	174
	PMX-3 10'	09/8-9/99	10	--	4.06	<25	<50	--	--	--	--	--	--	<10
PMX-4	PMX-4 12'	09/8-9/99	12	--	4.57	<25	<50	--	--	--	--	--	--	<10
PMX-5	PMX-5 10'	09/8-9/99	10	--	3.97	<25	<50	--	--	--	--	--	--	<10
PMX-6	PMX-6 14'	09/8-9/99	14	--	3.42	<25	<50	--	--	--	--	--	--	<10
PMX-7	PMX-7 10'	09/8-9/99	10	--	3.81	<25	<50	--	--	--	--	--	--	<10
PMX-8	PMX-8 5'	09/8-9/99	5	--	3.99	<25	<50	--	--	--	--	--	--	<10
	PMX-8 12'	09/8-9/99	12	--	4.24	<25	<50	--	--	--	--	--	--	<10
PMX-9	PMX-9 2'	09/8-9/99	2	--	9.01	<250	**2,230**	--	--	--	--	--	--	**273**
	PMX-9 12'	09/8-9/99	12	--	3.90	<25	<50	--	--	--	--	--	--	<10
PMX-10	PMX-10 9'	09/8-9/99	9	--	3.54	<25	<50	--	--	--	--	--	--	<10
	PMX-10 12'	09/8-9/99	12	--	4.20	<25	66.2	--	--	--	--	--	--	11.0
PMX-11	PMX-11 12'	09/8-9/99	12	--	4.55	<25	<50	--	--	--	--	--	--	<10
PMX-12	PMX-12 2'	09/8-9/99	2	--	6.86	358	806	--	--	--	--	--	--	17.4
PMX-13	PMX-13 10'	09/8-9/99	10	--	7.23	147	405	--	--	--	--	--	--	19.3
PMX-14	PMX-14 3'	09/8-9/99	3	--	<2.50	37.8	<50	--	--	--	--	--	--	154
PMX-15	PMX-15 3'	09/8-9/99	3	--	<2.50	<25	<50	--	--	--	--	--	--	154
PMX-16	PMX-16 6'	09/8-9/99	6	--	6.49	1,170	**2,300**	--	--	--	--	--	**0.107**	17.3
	PMX-16 10'	9/10/1999	10	--	<2.50	52.5	109	--	--	--	--	--	<0.100	14.3
PMX-17	PMX-17 6'	9/10/1999	6	--	12.8	**2,720**	**7,630**	--	--	--	--	--	**2.43**	378
PMX-18	PMX-18 6'	9/10/1999	6	--	<2.50	41.1	97.3	--	--	--	--	--	<0.100	17.7
PMX-19	PMX-19 2'	9/10/1999	2	--	<2.50	26.0	<50	--	--	--	--	--	--	53.6
PMX-20	PMX-20 6'	9/10/1999	6	--	<2.50	<25	<50	--	--	--	--	--	--	<10
MW-4	MW-4 15'	09/20-21/99	15	--	<2.50	48.0	<50	--	--	--	--	--	--	--
MW-5	MW-5 15'	09/20-21/99	15	--	<2.50	<25	<50	--	--	--	--	--	--	--
MW-6	MW-6 15'	09/20-21/99	15	--	<2.50	<25	<50	--	--	--	--	--	--	--

Summary of Soil Analytical Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Boring/ Well ID	Sample ID	Date Sampled	Sample Depth (feet)	TPH 418.1 (mg/kg)	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	PCE (mg/kg)	Total Lead (mg/kg)
	MTCA Method A Cleanup Level				**100/30***	**2,000**		**0.03**	**7**	**6**	**9**	**0.1**	**0.05**	**250**
	NW-end	3/1/2000	10.5	--	<21.7	<54.3	<109	--	--	--	--	--	--	2.75
	SW-end	3/1/2000	10.6	--	<22.0	<54.9	<110	--	--	--	--	--	--	3.12
	B-middle	3/1/2000	11	--	<22.0	<54.9	<110	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	8.62
DP1	DP1 4-5	3/20/2003	4-5	--	<4.00	149	1,010	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
	DP1 12-13	3/20/2003	12-13	--	<4.00	74.5	639	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
DP2	DP2 8-9	3/20/2003	8-9	--	<4.00	29.9	56.5	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
	DP2 14-15	3/20/2003	14-15	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
DP3	DP3 4-5	3/20/2003	4-5	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
	DP3 9-10	3/20/2003	9-10	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
DP4	DP4 12-13	3/20/2003	12-13	--	<4.00	<25.0	103	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
	DP4 39-40	3/20/2003	39-40	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	**0.732**	<0.100	--
DP5	DP5 11-12	3/20/2003	11-12	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
	DP5 34-35	3/20/2003	34-35	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
DP6	DP6 10-11	3/20/2003	10-11	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
	DP6 34-35	3/20/2003	34-35	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
HA5	HA5 2.0	3/20/2003	2.0	--	<4.00	<25.0	<50.0	<0.100	<0.100	<0.100	<0.200	<0.100	<0.100	--
B-17	SO-11145925-053019-BP-B-17-4	5/30/2019	4	--	<6.3	123	366	<0.0050	0.0057	<0.0050	<0.015	<0.0050	<0.0050	72.7
	SO-11145925-060619-BP-B-17-10 [a]	6/6/2019	10	--	<9.4	26.2	23.0	<0.0046	<0.0046	<0.0046	<0.014	<0.0046	<0.0046	2.8
B-18	SO-11145925-053119-BP-B-18-6	5/31/2019	6	--	<6.1	31.0	136	<0.0051	<0.0051	<0.0051	<0.015	<0.0051	<0.0051	20.0
	SO-11145925-053119-BP-B-18-10	5/31/2019	10	--	<6.1	38.6	167	<0.0046	<0.0046	<0.0046	<0.014	<0.0046	<0.0046	16.0
MW-7	SO-11145925-060419-BP-MW-7-50	6/4/2019	50	--	<7.3	<17.1	13.2	<0.0048	<0.0048	<0.0048	<0.014	<0.0048	<0.0048	5.3
	SO-11145925-060419-BP-MW-7-55	6/4/2019	55	--	<7.4	<20.5	<13.6	<0.0049	<0.0049	<0.0049	<0.015	<0.0049	<0.0049	4.6
MW-8	SO-11145925-060519-BP-MW-8-50	6/5/2019	50	--	<7.6	<16.3	<10.9	<0.0055	<0.0055	<0.0055	<0.016	<0.0055	<0.0055	5.3
	SO-11145925-060519-BP-MW-8-55	6/5/2019	55	--	<7.7	<21.1	<14.0	<0.0054	<0.0054	<0.0054	<0.016	<0.0054	<0.0054	4.4
MW-9	SO-11145925-053019-BP-MW-9-4	5/30/2019	4	--	<6.9	<16.0	<10.7	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	4.4
	SO-11145925-060616-BP-MW-9-40	6/6/2019	40	--	<6.3	<18.9	<12.6	<0.0048	<0.0048	<0.0048	<0.014	<0.0048	<0.0048	6.4
	SO-11145925-060619-BP-MW-9-45	6/6/2019	45	--	<6.7	<18.7	<12.5	<0.0043	<0.0043	<0.0043	<0.013	<0.0043	<0.0043	3.6
MW-10	SO-11145925-060319-BP-MW-10-35	6/3/2019	35	--	<7.1	<16.5	23.2	<0.0054	<0.0054	<0.0054	<0.016	<0.0054	<0.0054	6.3
	SO-11145925-060319-BP-MW-10-40	6/3/2019	40	--	<7.2	<20.1	<13.4	<0.0057	<0.0057	<0.0057	<0.017	<0.0057	<0.0057	8.1

Summary of Soil Analytical Data
Former Unocal Facility
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Notes:

Bold values equal or exceed Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level, per Cleanup Level and Risk Calculation (CLARC) data tables published in August 2015.
TPH as Gasoline-range organics (TPHg) analyzed by Northwest Method NWTPH-Gx.
TPH as Diesel-range organics (TPHd) analyzed by Northwest Method NWTPH-Dx.
TPH as Heavy Oil-range organics (TPHo) analyzed by Northwest Method NWTPH-Dx.
Benzene, toluene, ethylbenzene, total xylenes (BTEX) analyzed by USEPA Method 8260B or 8021B
Methyl tert-butyl ether (MTBE) analyzed by EPA Method 8260B.
Tetrachloroethene (PCE) analyzed by EPA Method 8260B.
Lead analyzed by EPA Method 6010B or 6020 (Total Lead).
mg/kg = milligrams per kilogram
ND = Not detected above the laboratory reporting limit
-- = Not measured/Not analyzed
< = Less than the stated laboratory reporting limit
[*] Concentrations levels stated by MTCA Method A for TPHg are 100 mg/kg when no benzene is present and 30 mg/kg when benzene is present at the Site
[a] Indicates sample was additionally analyzed for polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270D Select Ion Monitoring (SIM). All analytical results were less than the laboratory reporting limits and MTCA Method A cleanup levels.

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-1	4/24/2000	52.90	37.34	15.56	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-1	8/30/2000	52.90	44.19	8.71	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.96	--	--	--	--	--
MW-1	10/4/2000	52.90	44.75	8.15	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.98	--	<1.00	--	--	--
MW-1	1/15/2001	52.90	43.41	9.49	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.88	--	--	--	--	--
MW-1	4/23/2001	52.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	7/25/2001	52.90	46.17	6.73	--	--	--	--	--	--	--	--	ND	3.63	ND	ND	1.83	--	<1.00	**47.8**	--	--
MW-1	10/16/2001	52.90	45.38	7.52	--	--	--	--	--	--	--	--	ND	1.67	ND	ND	1.29	--	<8.59	**23.1**	--	--
MW-1	1/9/2002	52.90	40.90	12.00	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<1.00	2.52	--	--
MW-1	4/4/2002	52.90	42.96	9.94	--	--	--	--	--	--	--	--	ND	**5,120**	ND	ND	**108**	--	--	--	--	--
MW-1	7/8/2002	52.90	40.24	12.66	--	--	--	--	--	--	--	--	ND	**476**	ND	ND	**28.2**	--	--	--	--	--
MW-1	10/30/2002	52.90	45.25	7.65	--	--	--	--	--	--	--	--	ND	**144**	ND	1.46	**11.4**	--	--	--	--	--
MW-1	1/17/2003	52.90	43.05	9.85	--	--	--	--	--	--	--	--	ND	**346**	ND	ND	**15.1**	--	--	--	--	--
MW-1	4/4/2003	52.90	40.23	12.67	--	--	--	--	--	--	--	--	ND	**85.3**	ND	ND	2.93	--	--	--	--	--
MW-1	7/2/2003	52.90	42.58	10.32	--	--	--	--	--	--	--	--	ND	**574**	ND	ND	**17.3**	--	--	--	--	--
MW-1	1/28/2004	52.90	40.90	12.00	--	--	--	--	--	--	--	--	ND	**326**	ND	ND	ND	--	--	--	--	--
MW-1	4/26/2004	52.90	42.75	10.15	--	--	--	--	--	--	--	--	ND	**338**	ND	0.757	**6.31**	--	--	--	--	2.03
MW-1	7/23/2004	52.90	44.25	8.65	--	--	--	--	--	--	--	--	ND	**127**	ND	2.06	**19.5**	--	--	--	--	--
MW-1	11/5/2004	52.90	44.13	8.77	--	--	--	--	--	--	--	--	1.01	**447**	ND	1.3	**8.06**	--	--	--	--	2.88
MW-1	2/4/2005	52.90	43.68	9.22	--	--	--	--	--	--	--	--	<1.0	**192**	ND	**12.6**	1.08	--	--	--	--	--
MW-1	5/10/2005	52.90	41.02	11.88	--	--	--	--	--	--	--	--	<5.0	**197**	ND	ND	ND	--	--	--	--	--
MW-1	8/8/2005	52.90	43.72	9.18	--	--	--	--	--	--	--	--	<1.0	**234**	<200	1.33	**12.9**	--	--	--	--	4.88
MW-1	12/13/2005	52.90	43.67	9.23	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	**6.0**	--	--	--	--	7.59
MW-1	3/3/2006	52.90	40.78	12.12	--	--	--	--	--	--	--	--	<2.0	**100**	<0.8	<1.0	**6.0**	--	--	--	--	6.23
MW-1	6/29/2006	52.90	40.30	12.60	--	--	--	--	--	--	--	--	<2.0	18	<0.8	<1.0	**10**	--	--	--	--	6.04
MW-1	9/8/2006	52.90	44.40	8.50	--	--	--	--	--	--	--	--	<2.0	**58**	<0.8	1.0	**10**	--	--	--	--	6.89
MW-1	12/1/2006	52.90	41.34	11.56	--	--	--	--	--	--	--	--	<2.0	19	<0.8	<1.0	4.0	--	--	--	--	5.20
MW-1	3/1/2007	52.90	41.60	11.30	--	--	--	--	--	--	--	--	<2.0	14	<0.8	<1.0	**7.0**	--	--	--	--	7.35
MW-1	6/28/2007	52.90	43.10	9.80	--	--	--	--	--	--	--	--	<2	<0.5	<0.8	1	**12**	--	--	--	--	7.0
MW-1	2/1/2008	52.90	42.25	10.65	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	**7**	--	--	--	--	--
MW-1	3/20/2008	52.90	42.07	10.83	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	5	--	--	--	--	--
MW-1	6/19/2008	52.90	36.39	16.51	--	--	--	<0.5	<0.7	<0.8	<0.8	2	<2	<0.5	<0.8	<1	3	--	--	--	--	--
MW-1	9/30/2008	52.90	44.92	7.98	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	**9.2**	--	--	--	--	--
MW-1	11/7/2008	52.90	44.65	8.25	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	**8**	--	--	--	--	--
MW-1	2/19/2009	52.90	44.19	8.71	--	--	--	<0.12	<0.21	<0.20	<0.27	0.78	<1.0	<0.16	<0.20	0.34	**8.5**	--	--	--	--	--
MW-1	4/21/2009	52.90	42.02	10.88	--	--	--	<0.12	<0.21	<0.20	<0.27	1.7	<1.0	<0.16	<0.20	<0.22	4.3	--	--	--	--	--
MW-1	7/30/2009	52.90	44.25	8.65	--	--	--	<0.12	<0.21	<0.20	<0.27	1.1	<1.0	<0.16	<0.20	0.32 J	**6.1**	--	--	--	--	--
MW-1	10/27/2009	52.90	45.98	6.92	--	--	--	0.13 J	0.69 J	<0.20	<0.42	1.1	<1.0	<0.16	<0.20	<0.22	**5.1**	--	--	--	--	--
MW-1	3/12/2010	52.90	44.38	8.52	--	--	--	<0.12	<0.21	<0.20	<0.42	1.6	<0.26	<0.16	<0.20	<0.22	3.3	--	--	--	--	--
MW-1	6/4/2010	52.90	40.20	12.70	--	<77.7	<388	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	<1.0	2.8	--	--	--	--	--
MW-1	9/2/2010	52.90	46.00	6.90	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	4.6	--	--	--	--	--
MW-1	12/1/2010	52.90	43.36	9.54	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	2.0	<4.0	<1.0	<1.0	<1.0	2.4	--	--	--	--	--
MW-1	3/8/2011	52.90	40.53	12.37	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	1.8	<4.0	<1.0	<1.0	<1.0	2.2	--	--	--	--	--
MW-1	6/16/2011	52.90	31.98	20.92	--	<88.9	<444	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.4	--	--	--	--	--

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-1	9/26/2011	52.90	45.00	7.90	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**6**	--	--	--	<50	--
MW-1	12/19/2011	52.90	45.15	7.75	--	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-1	3/23/2012	52.90	28.61	24.29	--	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	--	<50	--
MW-1	6/18/2012	52.90	38.27	14.63	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-1	8/28/2012	52.90	43.32	9.58	--	30	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	5	--	--	--	<50	--
MW-1	12/17/2012	52.90	39.52	13.38	--	<28	<66	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.8	<1	1	--	--	--	<50	--
MW-1	3/5/2013	52.90	43.90	9.00	--	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-1	6/21/2013	52.90	42.38	10.52	--	<30	96	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-1	9/9/2013	52.90	45.12	7.78	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-1	12/19/2013	52.90	43.23	9.67	--	<29	<67	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-1	3/26/2014	52.90	41.07	11.83	--	<29	220	<0.5	<0.5	<0.5	<0.5	0.6	<2	<0.5	<0.5	<0.5	1	--	--	--	<50	--
MW-1	6/16/2014	52.90	40.80	12.10	--	<28	<66	<0.5	<0.5	<0.5	<0.5	0.6	<2	<0.5	<0.5	<0.5	2	--	--	--	<50	--
MW-1	9/11/2014	52.90	43.89	9.01	--	<29	<68	<0.5	<0.5	<0.5	<0.5	0.5	<2	<0.5	<0.5	<0.5	4	--	--	--	<50	--
MW-1	3/24/2015	52.90	41.23	11.67	--	<28	330	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.5	<0.5	1	--	--	--	<50	--
MW-1	10/25/2017	52.90	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	1.7	--	--	--	--	--
MW-1	7/19/2019	52.90	44.12	8.78	<100	<385	<385	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	1.1	<1.0	---	---	---	---
MW-2	4/24/2000	52.69	37.76	14.93	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-2	8/30/2000	52.69	44.63	8.06	--	--	--	--	--	--	--	--	ND	ND	1.07	ND	4.00	--	--	--	--	--
MW-2	10/4/2000	52.69	45.26	7.43	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.37	--	<1.00	--	--	--
MW-2	1/15/2001	52.69	43.87	8.82	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.24	--	--	--	--	--
MW-2	4/23/2001	52.69	44.97	7.72	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.29	--	<1.00	6.00	--	--
MW-2	7/25/2001	52.69	46.65	6.04	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**6.74**	--	<1.00	**73.3**	--	--
MW-2	10/16/2001	52.69	45.72	6.97	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.26	--	<1.00	**15.7**	--	--
MW-2	1/9/2002	52.69	41.34	11.35	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.33	--	<1.00	7.57	--	--
MW-2	4/4/2002	52.69	43.42	9.27	--	--	--	--	--	--	--	--	ND	1.54	ND	ND	3.78	--	--	--	--	--
MW-2	7/8/2002	52.69	40.69	12.00	--	--	--	--	--	--	--	--	ND	ND	ND	1.48	**6.88**	--	--	--	--	--
MW-2	10/30/2002	52.69	45.74	6.95	--	--	--	--	--	--	--	--	ND	ND	ND	7.1	<5	--	--	--	--	--
MW-2	1/17/2003	52.69	43.49	9.20	--	--	--	--	--	--	--	--	ND	1.03	ND	1.22	**8.83**	--	--	--	--	--
MW-2	4/4/2003	52.69	40.70	11.99	--	--	--	--	--	--	--	--	ND	11.8	ND	ND	**5.34**	--	--	--	--	--
MW-2	7/2/2003	52.69	43.02	9.67	--	--	--	--	--	--	--	--	ND	3.33	ND	1.55	**8.91**	--	--	--	--	--
MW-2	1/28/2004	52.69	41.35	11.34	--	--	--	--	--	--	--	--	ND	**40.4**	ND	2.1	**9.4**	--	--	--	--	--
MW-2	4/26/2004	52.69	43.21	9.48	--	--	--	--	--	--	--	--	ND	16.1	0.563	2.53	**12.5**	--	--	--	--	1.91
MW-2	7/23/2004	52.69	44.70	7.99	--	--	--	--	--	--	--	--	ND	7.24	0.899	3.58	**18.5**	--	--	--	--	--
MW-2	11/5/2004	52.69	44.60	8.09	--	--	--	--	--	--	--	--	ND	2.67	ND	2.74	**10.8**	--	--	--	--	2.83
MW-2	2/4/2005	52.69	44.13	8.56	--	--	--	--	--	--	--	--	<1.0	2.78	ND	3.20	**17**	--	--	--	--	--
MW-2	5/10/2005	52.69	41.42	11.27	--	--	--	--	--	--	--	--	<5.0	ND	ND	ND	4.84	--	--	--	--	--
MW-2	8/8/2005	52.69	44.16	8.53	--	--	--	--	--	--	--	--	<1.0	**29.2**	<200	3.26	**15.6**	--	--	--	--	3.84
MW-2	12/13/2005	52.69	44.14	8.55	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	1.0	**9.0**	--	--	--	--	7.36
MW-2	3/3/2006	52.69	41.22	11.47	--	--	--	--	--	--	--	--	<2.0	7.0	<0.8	2.0	**8.0**	--	--	--	--	6.3
MW-2	6/29/2006	52.69	40.78	11.91	--	--	--	--	--	--	--	--	<2.0	12	<0.8	2.0	**13**	--	--	--	--	6.2
MW-2	9/8/2006	52.69	42.82	9.87	--	--	--	--	--	--	--	--	<2.0	**120**	<0.8	4.0	**20**	--	--	--	--	5.5
MW-2	12/1/2006	52.69	41.81	10.88	--	--	--	--	--	--	--	--	<2.0	5.0	<0.8	<1.0	**8.0**	--	--	--	--	4.95

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-2	3/1/2007	52.69	42.08	10.61	--	--	--	--	--	--	--	--	<2.0	**23.0**	<0.8	2.0	**11.0**	--	--	--	--	5.7
MW-2	6/28/2007	52.69	43.64	9.05	--	--	--	--	--	--	--	--	<2	**35**	<0.8	2	**13**	--	--	--	--	6.40
MW-2	2/1/2008	52.69	42.70	9.99	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	**7**	--	--	--	--	--
MW-2	3/20/2008	52.69	42.50	10.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/19/2008	52.69	36.82	15.87	--	--	--	<0.5	<0.7	<0.8	<0.8	3	<2	<0.5	<0.8	<1	**7**	--	--	--	--	--
MW-2	9/30/2008	52.69	45.30	7.39	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.9	**11**	--	--	--	--	--
MW-2	11/7/2008	52.69	45.10	7.59	--	--	--	<0.5	<0.7	<0.8	<0.8	2	<2	<0.5	<0.8	<1	**8**	--	--	--	--	--
MW-2	2/19/2009	52.69	45.60	7.09	--	--	--	<0.12	<0.21	<0.20	<0.27	2.5	<1.0	<0.16	0.22	1.1	**9.2**	--	--	--	--	--
MW-2	4/21/2009	52.69	41.82	10.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	7/30/2009	52.69	44.00	8.69	--	--	--	<0.12	<0.21	<0.20	<0.27	2.1	<1.0	<0.16	<0.20	1.1	**8.8**	--	--	--	--	--
MW-2	10/27/2009	52.69	45.77	6.92	--	--	--	<0.12	<0.21	<0.20	<0.42	2.1	<1.0	<0.16	<0.20	0.60 J	**5.1**	--	--	--	--	--
MW-2	3/12/2010	52.69	44.15	8.54	--	--	--	<0.12	<0.21	<0.20	<0.42	2.7	<0.26	<0.16	<0.20	0.54 J	3.6	--	--	--	--	--
MW-2	6/4/2010	52.69	40.06	12.63	--	<77.7	<388	<1.0	<1.0	<1.0	<3.0	3.5	<4.0	<1.0	<1.0	<1.0	2.1	--	--	--	--	--
MW-2	9/2/2010	52.69	45.82	6.87	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	1.0	**6.0**	--	--	--	--	--
MW-2	12/1/2010	52.69	43.15	9.54	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	3.5	<4.0	<1.0	<1.0	<1.0	2.3	--	--	--	--	--
MW-2	3/8/2011	52.69	40.33	12.36	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	3.6	<4.0	<1.0	<1.0	<1.0	2.9	--	--	--	--	--
MW-2	6/16/2011	52.69	31.87	20.82	--	<81.6	<408	<1.0	<1.0	<1.0	<3.0	2.5	<4.0	<1.0	<1.0	<1.0	2.2	--	--	--	--	--
MW-2	9/26/2011	52.69	44.79	7.90	<50	<28	<66	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	**6**	--	--	--	<50	--
MW-2	12/19/2011	52.69	45.11	7.58	--	34	<67	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	3/23/2012	52.69	28.49	24.20	--	<28	<66	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.8	<1	1	--	--	--	<50	--
MW-2	6/18/2012	52.69	38.09	14.60	--	<28	<66	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-2	8/28/2012	52.69	43.13	9.56	--	49	<66	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	12/17/2012	52.69	39.39	13.30	--	<29	<68	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-2	3/5/2013	52.69	43.66	9.03	--	<31	<73	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	6/21/2013	52.69	42.20	10.49	--	39	140	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.8	<1	3	--	--	--	<50	--
MW-2	9/9/2013	52.69	44.96	7.73	--	60	87	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	12/19/2013	52.69	44.10	8.59	--	<29	<67	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.8	<1	3	--	--	--	<50	--
MW-2	3/26/2014	52.69	40.80	11.89	--	<28	<66	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.5	<0.5	2	--	--	--	<50	--
MW-2	6/16/2014	52.69	40.60	12.09	--	<28	<65	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.5	<0.5	2	--	--	--	<50	--
MW-2	9/11/2014	52.69	43.56	9.13	--	41	<68	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.5	<0.5	4	--	--	--	<50	--
MW-2	3/24/2015	52.69	41.01	11.68	--	34	150	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.5	<0.5	2	--	--	--	<50	--
MW-2	10/25/2017	52.69	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	2.1	--	--	--	--	--
MW-2	7/19/2019	52.69	43.92	8.77	<100	<377	<377	<1.0	<1.0	<1.0	<3.0	2.5	<4.0	<1.0	<1.0	<0.40	1.5	<1.0	---	---	---	---
MW-2 [c]	7/19/2019	52.69	43.92	8.77	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0	<4.0	<1.0	<1.0	<0.40	1.4	<1.0	---	---	---	---
MW-4	9/22/1999	51.52	--	--	<80	**995***	**1,750***	<1	<1	<1	<3	--	--	--	2.01	<1	**15.1**	--	--	**15.5**	--	--
MW-4	8/30/2000	51.52	43.50	8.02	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**12.6**	--	--	--	--	--
MW-4	10/4/2000	51.52	44.07	7.45	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**12.8**	--	1.22	--	--	--
MW-4	1/15/2001	51.52	42.69	8.83	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**5.19**	--	--	--	--	--
MW-4	4/23/2001	51.52	43.87	7.65	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**9.02**	--	<1.00	2.38	--	--
MW-4	7/25/2001	51.52	45.43	6.09	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**7.92**	--	<1.00	**62.0**	--	--
MW-4	10/16/2001	51.52	44.59	6.93	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.8	--	<1.00	10.8	--	--
MW-4	1/9/2002	51.52	40.17	11.35	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.21	--	<1.00	13.9	--	--

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1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-4	4/4/2002	51.52	43.32	8.20	--	--	--	--	--	--	--	--	ND	8.58	2.87	**15.4**	**45.5**	--	--	--	--	--
MW-4	7/8/2002	51.52	39.53	11.99	--	--	--	--	--	--	--	--	ND	**22.7**	1.83	**9.59**	**22.2**	--	--	--	--	--
MW-4	10/30/2002	51.52	44.53	6.99	--	--	--	--	--	--	--	--	ND	**1,090**	ND	**35**	**76.6**	--	--	--	--	--
MW-4	1/17/2003	51.52	42.32	9.20	--	--	--	--	--	--	--	--	ND	**2,960**	ND	**27.2**	**84.8**	--	--	--	--	--
MW-4	4/4/2003	51.52	39.53	11.99	--	--	--	--	--	--	--	--	ND	**779**	ND	**12.2**	**48.2**	--	--	--	--	--
MW-4	7/2/2003	51.52	41.90	9.62	--	--	--	--	--	--	--	--	ND	**397**	2.38	**11.6**	**58.2**	--	--	--	--	--
MW-4	1/28/2004	51.52	40.20	11.32	--	--	--	--	--	--	--	--	ND	**289**	ND	**11.2**	**63.9**	--	--	--	--	--
MW-4	4/26/2004	51.52	42.05	9.47	--	--	--	--	--	--	--	--	ND	**362**	1.62	**6.86**	**49.6**	--	--	--	--	2.11
MW-4	7/23/2004	51.52	43.61	7.91	--	--	--	--	--	--	--	--	ND	**86.1**	1.7	4.97	**48.4**	--	--	--	--	--
MW-4	11/5/2004	51.52	43.49	8.03	--	--	--	--	--	--	--	--	ND	**59.8**	2.13	**6.14**	**45.5**	--	--	--	--	3.18
MW-4	2/4/2005	51.52	42.96	8.56	--	--	--	--	--	--	--	--	<1.0	**169**	2.14	**5.15**	**46.8**	--	--	--	--	--
MW-4	5/10/2005	51.52	40.29	11.23	--	--	--	--	--	--	--	--	<5.0	4.86	ND	ND	4.91	--	--	--	--	--
MW-4	8/8/2005	51.52	43.00	8.52	--	--	--	--	--	--	--	--	<1.0	**139**	1.85	**5.3**	**44.8**	--	--	--	--	1.94
MW-4	12/13/2005	51.52	42.97	8.55	--	--	--	--	--	--	--	--	<2.0	**110**	0.9	2.0	**17**	--	--	--	--	6.07
MW-4	3/3/2006	51.52	40.02	11.50	--	--	--	--	--	--	--	--	<2.0	**70**	<0.8	2.0	**11**	--	--	--	--	4.89
MW-4	6/29/2006	51.52	39.63	11.89	--	--	--	--	--	--	--	--	<2.0	**110**	<0.8	3.0	**23**	--	--	--	--	4.90
MW-4	9/8/2006	51.52	43.66	7.86	--	--	--	--	--	--	--	--	<2.0	**270**	1	**5.0**	**35**	--	--	--	--	4.30
MW-4	12/1/2006	51.52	40.65	10.87	--	--	--	--	--	--	--	--	<2.0	**160**	<0.8	2.0	**18**	--	--	--	--	3.80
MW-4	3/1/2007	51.52	40.90	10.62	--	--	--	--	--	--	--	--	<2.0	**180**	<0.8	2.0	**25**	--	--	--	--	4.65
MW-4	6/28/2007	51.52	42.48	9.04	--	--	--	--	--	--	--	--	<2	2	<0.8	2	**33**	--	--	--	--	3.5
MW-4	2/1/2008	51.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/20/2008	51.52	41.34	10.18	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	1	**11**	--	--	--	--	--
MW-4	6/19/2008	51.52	35.66	15.86	--	--	--	<0.5	<0.7	<0.8	<0.8	0.9	<2	<0.5	<0.8	<1	**9**	--	--	--	--	--
MW-4	9/30/2008	51.52	44.15	7.37	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.2	**15**	--	--	--	--	--
MW-4	11/7/2008	51.52	43.94	7.58	--	--	--	<0.5	<0.7	<0.20	<0.8	<0.8	<2	<0.5	<0.8	1	**16**	--	--	--	--	--
MW-4	2/19/2009	51.52	43.54	7.98	--	--	--	<0.12	<0.21	<0.20	<0.27	0.19	<1.0	0.89	0.33	0.98	**26**	--	--	--	--	--
MW-4	4/21/2009	51.52	40.65	10.87	--	--	--	<0.12	<0.21	<0.20	<0.27	1.6	<1.0	0.32 J	<0.20	0.88 J	**11.7**	--	--	--	--	--
MW-4	7/30/2009	51.52	42.85	8.67	--	--	--	<0.12	<0.21	<0.20	<0.27	1.0	<1.0	0.40 J	0.29 J	1.2	**19.0**	--	--	--	--	--
MW-4	10/27/2009	51.52	44.61	6.91	--	--	--	<0.12	<0.21	<0.20	<0.42	0.99 J	<1.0	0.31 J	<0.15	1.0	**16.6**	--	--	--	--	--
MW-4	3/12/2010	51.52	43.02	8.50	--	--	--	<0.12	<0.21	<0.20	<0.42	0.79 J	<0.26	0.33 J	0.26 J	1.0	**13.9**	--	--	--	--	--
MW-4	6/4/2010	51.52	38.90	12.62	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	2.60	<4.0	<1.0	<1.0	<1.0	**5.2**	--	--	--	--	--
MW-4	9/2/2010	51.52	44.65	6.87	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	**11.6**	--	--	--	--	--
MW-4	12/1/2010	51.52	42.00	9.52	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	2.3	<4.0	<1.0	<1.0	<1.0	**7.1**	--	--	--	--	--
MW-4	3/8/2011	51.52	39.16	12.36	--	130	<377	<1.0	<1.0	<1.0	<3.0	1.8	<4.0	<1.0	<1.0	<1.0	**8.6**	--	--	--	--	--
MW-4	6/16/2011	51.52	31.25	20.27	--	<83.3	<417	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	3.9	--	--	--	--	--
MW-4	9/26/2011	51.52	43.63	7.89	99	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**14**	--	--	--	<50	--
MW-4	12/19/2011	51.52	43.82	7.70	--	**330**	**700**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**11**	--	--	--	<50	--
MW-4	3/23/2012	51.52	27.33	24.19	--	80	290	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-4	6/18/2012	51.52	39.16	12.36	--	100	330	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	5	--	--	--	<50	--
MW-4	8/28/2012	51.52	42.01	9.51	--	**620**	**650**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**12**	--	--	--	<50	--
MW-4	12/17/2012	51.52	38.17	13.35	--	80	66	<0.5	<0.5	<0.5	<0.5	0.9	<2	<0.5	<0.8	<1	**7**	--	--	--	<50	--
MW-4	3/5/2013	51.52	42.52	9.00	--	**610**	**710**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**11**	--	--	--	<50	--
MW-4	6/21/2013	51.52	40.98	10.54	--	**540**	**850**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**9**	--	--	--	<50	--

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-4	9/9/2013	51.52	42.89	8.63	--	**540**	**570**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**8**	--	--	--	<50	--
MW-4	12/19/2013	51.52	42.86	8.66	--	**460**	**300**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**6**	--	--	--	<50	--
MW-4	3/26/2014	51.52	39.65	11.87	--	100	100	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.5	<0.5	4	--	--	--	<50	--
MW-4	6/16/2014	51.52	39.48	12.04	--	**630**	**600**	<0.5	<0.5	<0.5	<0.5	0.7	<2	<0.5	<0.5	<0.5	5	--	--	--	<50	--
MW-4	9/11/2014	51.52	42.55	8.97	--	**310**	**360**	<0.5	<0.5	<0.5	<0.5	0.5	<2	<0.5	<0.5	<0.5	**9**	--	--	--	<50	--
MW-4	3/24/2015	51.52	40.05	11.47	--	63	150	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.5	<0.5	3	--	--	--	<50	--
MW-4	10/25/2017	51.52	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	4.1	--	--	--	--	--
MW-4	7/19/2019	51.52	42.73	8.79	<100	<385	<385	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	3.1	<1.0	---	---	---	---
MW_5	9/22/1999	96.47 [b]	--	--	<80	**432***	**632***	<1	<1	<1	<3	--	--	--	3.67	2.53	**23.6**	--	--	**27**	--	--
MW-5	8/30/2000	96.47 [b]	44.18	52.29	--	--	--	--	--	--	--	--	ND	ND	2.0	1.56	**25.6**	--	--	--	--	--
MW-5	10/4/2000	96.47 [b]	44.72	51.75	--	--	--	--	--	--	--	--	ND	ND	ND	1.73	**16.9**	--	<1.00	--	--	--
MW-5	1/15/2001	96.47 [b]	43.35	53.12	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**7.37**	--	--	--	--	--
MW-5	4/23/2001	96.47 [b]	44.52	51.95	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**9.21**	--	<1.00	1.74	--	--
MW-5	7/25/2001	96.47 [b]	46.11	50.36	--	--	--	--	--	--	--	--	ND	ND	ND	1.42	**22.9**	--	<1.00	12.3	--	--
MW-5	10/16/2001	96.47 [b]	45.28	51.19	--	--	--	--	--	--	--	--	ND	ND	ND	1.29	**18**	--	<1.00	6.02	--	--
MW-5	1/9/2002	96.47 [b]	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	4/4/2002	96.47 [b]	42.95	53.52	--	--	--	--	--	--	--	--	ND	ND	2.78	**15.1**	**105**	--	--	--	--	--
MW-5	7/8/2002	96.47 [b]	40.22	56.25	--	--	--	--	--	--	--	--	ND	ND	1.48	**5.6**	**57.6**	--	--	--	--	--
MW-5	10/30/2002	96.47 [b]	45.15	51.32	--	--	--	--	--	--	--	--	ND	1.37	2.75	**14.8**	**101**	--	--	--	--	--
MW-5A	1/17/2003	52.15	42.93	9.22	--	--	--	--	--	--	--	--	ND	15.1	2.29	**10.3**	**79**	--	--	--	--	--
MW-5A	4/4/2003	52.15	40.18	11.97	--	--	--	--	--	--	--	--	ND	**67**	ND	1.91	**17.1**	--	--	--	--	--
MW-5A	7/2/2003	52.15	42.55	9.60	--	--	--	--	--	--	--	--	ND	**35.7**	2.2	**9.8**	**78.1**	--	--	--	--	--
MW-5A	1/28/2004	52.15	40.83	11.32	--	--	--	--	--	--	--	--	ND	**449**	ND	ND	**31.4**	--	--	--	--	--
MW-5A	4/26/2004	52.15	42.68	9.47	--	--	--	--	--	--	--	--	ND	**164**	3.9	**7.43**	**68**	--	--	--	--	2.89
MW-5A	7/23/2004	52.15	44.21	7.94	--	--	--	--	--	--	--	--	ND	**45**	5.07	**9.93**	**79.3**	--	--	--	--	--
MW-5A	11/5/2004	52.15	44.06	8.09	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.98	--	--	--	--	4.89
MW-5A	2/4/2005	52.15	43.60	8.55	--	--	--	--	--	--	--	--	<1.0	**26**	2.71	**5.47**	**58.8**	--	--	--	--	--
MW-5A	5/10/2005	52.15	40.94	11.21	--	--	--	--	--	--	--	--	<5.0	**214**	ND	ND	**21.2**	--	--	--	--	--
MW-5A	8/8/2005	52.15	43.64	8.51	--	--	--	--	--	--	--	--	<1.0	**89**	2.3	**5.8**	**59.4**	--	--	--	--	4.62
MW-5A	12/13/2005	52.15	43.60	8.55	--	--	--	--	--	--	--	--	<2.0	**95**	1.0	3.0	**26**	--	--	--	--	5.82
MW-5A	3/3/2006	52.15	40.71	11.44	--	--	--	--	--	--	--	--	<2.0	**110**	0.8	2.0	**25**	--	--	--	--	3.09
MW-5A	6/29/2006	52.15	40.25	11.90	--	--	--	--	--	--	--	--	<2.0	**130**	1.0	3.0	**37**	--	--	--	--	4.15
MW-5A	9/8/2006	52.15	44.30	7.85	--	--	--	--	--	--	--	--	<2.0	16	2.0	**6.0**	**66**	--	--	--	--	3.30
MW-5A	12/1/2006	52.15	41.29	10.86	--	--	--	--	--	--	--	--	<2.0	12	<0.8	2.0	**25**	--	--	--	--	4.10
MW-5A	3/1/2007	52.15	41.54	10.61	--	--	--	--	--	--	--	--	<2.0	**26**	0.9	2.0	**38**	--	--	--	--	5.50
MW-5A	6/28/2007	52.15	43.12	9.03	--	--	--	--	--	--	--	--	<2	1	<0.8	3	**40**	--	--	--	--	3.5
MW-5A	2/1/2008	52.15	42.19	9.96	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	1	**32**	--	--	--	--	--
MW-5A	3/20/2008	52.15	42.00	10.15	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	2	**28**	--	--	--	--	--
MW-5A	6/19/2008	52.15	36.25	15.90	--	--	--	<0.5	<0.7	<0.8	<0.8	1	<2	<0.5	<0.8	<1	**9**	--	--	--	--	--
MW-5A	9/30/2008	52.15	44.80	7.35	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.5	**26**	--	--	--	--	--
MW-5A	11/7/2008	52.15	44.62	7.53	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	1.0	**26**	--	--	--	--	--

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-5A	2/19/2009	52.15	44.15	8.00	--	--	--	<0.12	<0.21	<0.20	<0.27	3.1	<1.0	0.23	0.26	0.97	**26**	--	--	--	--	--
MW-5A	4/21/2009	52.15	41.31	10.84	--	--	--	0.26 J	0.90 J	0.54 J	0.99 J	1.8	<1.0	0.22 J	<0.20	0.65 J	**14.1**	--	--	--	--	--
MW-5A	7/30/2009	52.15	43.50	8.65	--	--	--	<0.12	<0.21	<0.20	<0.27	1.8	<1.0	0.28 J	0.28 J	1.0	**23.5**	--	--	--	--	--
MW-5A	10/27/2009	52.15	45.22	6.93	--	--	--	<0.12	<0.21	<0.20	<0.42	0.73 J	<1.0	<0.16	<0.20	0.46 J	**10.4**	--	--	--	--	--
MW-5A	3/12/2010	52.15	43.65	8.50	--	--	--	<0.12	<0.21	<0.20	<0.42	3.1	<0.26	0.16 J	<0.20	0.66 J	**11.6**	--	--	--	--	--
MW-5A	6/4/2010	52.15	39.59	12.56	--	<77.7	<388	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	<1.0	**7.3**	--	--	--	--	--
MW-5A	9/2/2010	52.15	45.29	6.86	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	1.9	<4.0	<1.0	<1.0	<1.0	**13.0**	--	--	--	--	--
MW-5A	12/1/2010	52.15	42.59	9.56	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	**7.4**	--	--	--	--	--
MW-5A	3/8/2011	52.15	39.81	12.34	--	118	<377	<1.0	<1.0	<1.0	<3.0	1.6	<4.0	<1.0	<1.0	<1.0	**9.2**	--	--	--	--	--
MW-5A	6/16/2011	52.15	30.62	21.53	--	<81.6	<408	<1.0	<1.0	<1.0	<3.0	2.3	<4.0	<1.0	<1.0	<1.0	3.0	--	--	--	--	--
MW-5A	9/26/2011	52.15	44.30	7.85	58	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**20**	--	--	--	<50	--
MW-5A	12/19/2011	52.15	44.37	7.78	--	58	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**10**	--	--	--	<50	--
MW-5A	3/23/2012	52.15	27.98	24.17	--	**160**	**380**	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.8	<1	3	--	--	--	<50	--
MW-5A	6/18/2012	52.15	37.57	14.58	--	**180**	**720**	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	**7**	--	--	--	<50	--
MW-5A	8/28/2012	52.15	42.61	9.54	--	**200**	**560**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**14**	--	--	--	<50	--
MW-5A	12/17/2012	52.15	38.82	13.33	--	**140**	**450**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**8**	--	--	--	<50	--
MW-5A	3/5/2013	52.15	43.12	9.03	--	58	<70	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**11**	--	--	--	<50	--
MW-5A	6/21/2013	52.15	41.60	10.55	--	130	260	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**12**	--	--	--	<50	--
MW-5A	9/9/2013	52.15	43.38	8.77	--	86	84	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**10**	--	--	--	<50	--
MW-5A	12/19/2013	52.15	42.46	9.69	--	99	91	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	**8**	--	--	--	<50	--
MW-5A	3/26/2014	52.15	40.21	11.94	--	67	<66	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.5	<0.5	5	--	--	--	<50	--
MW-5A	6/16/2014	52.15	39.98	12.17	--	**190**	**470**	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.5	<0.5	**6**	--	--	--	<50	--
MW-5A	9/11/2014	52.15	43.08	9.07	--	88	77	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	**11**	--	--	--	<50	--
MW-5A	3/24/2015	52.15	40.56	11.59	--	**140**	**470**	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.5	<0.5	**6**	--	--	--	<50	--
MW-5A	10/25/2017	52.15	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	**6.2**	--	--	--	--	--
MW-5A	7/19/2019	52.15	43.47	8.68	<100	<377	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	4.1	<1.0	---	---	---	---
MW-6	9/22/1999	65.93	--	--	<80	<250	<500	<1	<1	<1	<3	--	--	--	<1	<1	<1	--	--	11.7	--	--
MW-6	8/30/2000	65.93	57.87	8.06	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-6	10/4/2000	65.93	58.42	7.51	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<1.00	--	--	--
MW-6	1/15/2001	65.93	57.04	8.89	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-6	4/23/2001	65.93	58.18	7.75	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<1.00	3.47	--	--
MW-6	7/25/2001	65.93	59.80	6.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/16/2001	65.93	59.02	6.91	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-6	1/9/2002	65.93	54.58	11.35	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<8.30	7.14	--	--
MW-6	4/4/2002	65.93	56.64	9.29	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**5.84**	--	<1.00	4.61	--	--
MW-6	7/8/2002	65.93	53.90	12.03	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.8	--	--	--	--	--
MW-6	10/30/2002	65.93	58.90	7.03	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.26	--	--	--	--	--
MW-6	1/17/2003	65.93	56.69	9.24	--	--	--	--	--	--	--	--	ND	ND	ND	ND	4.56	--	--	--	--	--
MW-6	4/4/2003	65.93	53.90	12.03	--	--	--	--	--	--	--	--	ND	1.17	ND	ND	2.64	--	--	--	--	--
MW-6	7/2/2003	65.93	56.24	9.69	--	--	--	--	--	--	--	--	ND	ND	ND	ND	4.26	--	--	--	--	--
MW-6	1/28/2004	65.93	54.56	11.37	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.39	--	--	--	--	--
MW-6	4/26/2004	65.93	56.38	9.55	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**14.9**	--	--	--	--	1.83

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
		MTCA Method A Cleanup Levels:			**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-6	7/23/2004	65.93	58.01	7.92	--	--	--	--	--	--	--	--	ND	ND	ND	ND	**7.26**	--	--	--	--	--
MW-6	11/5/2004	65.93	57.76	8.17	--	--	--	--	--	--	--	--	ND	**332**	ND	3.05	**17.7**	--	--	--	--	3.08
MW-6	2/4/2005	65.93	57.34	8.59	--	--	--	--	--	--	--	--	<1.0	ND	ND	ND	**8.55**	--	--	--	--	--
MW-6	5/10/2005	65.93	54.70	11.23	--	--	--	--	--	--	--	--	<5.0	ND	ND	ND	1.53	--	--	--	--	--
MW-6	8/8/2005	65.93	57.40	8.53	--	--	--	--	--	--	--	--	<1.0	<1	<200	<5.0	**5.48**	--	--	--	--	3.71
MW-6	12/13/2005	65.93	57.30	8.63	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	2.0	--	--	--	--	7.4
MW-6	3/3/2006	65.93	54.45	11.48	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	**6.0**	--	--	--	--	6.48
MW-6	6/29/2006	65.93	53.94	11.99	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	**11**	--	--	--	--	6.95
MW-6	9/8/2006	65.93	58.09	7.84	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	3.0	--	--	--	--	7.10
MW-6	12/1/2006	65.93	55.00	10.93	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	2.0	--	--	--	--	6.90
MW-6	3/1/2007	65.93	55.25	10.68	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	**6.0**	--	--	--	--	7.75
MW-6	6/28/2007	65.93	56.77	9.16	--	--	--	--	--	--	--	--	<2	<0.5	<0.8	<1	2	--	--	--	--	6.70
MW-6	2/1/2008	65.93	55.90	10.03	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	4	--	--	--	--	--
MW-6	3/20/2008	65.93	55.75	10.18	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	3	--	--	--	--	--
MW-6	6/19/2008	65.93	50.07	15.86	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	1	--	--	--	--	--
MW-6	9/30/2008	65.93	58.60	7.33	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--
MW-6	11/7/2008	65.93	58.30	7.63	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	--	--	--
MW-6	2/19/2009	65.93	57.87	8.06	--	--	--	<0.12	<0.21	<0.20	<0.27	0.34	<1.0	<0.16	<0.20	<0.22	1.5	--	--	--	--	--
MW-6	4/21/2009	65.93	55.04	10.89	--	--	--	0.17 J	0.82 J	0.32 J	0.61 J	<0.15	<1.0	<0.16	<0.20	<0.22	3.4	--	--	--	--	--
MW-6	7/30/2009	65.93	57.25	8.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/27/2009	65.93	58.95	6.98	--	--	--	<0.12	<0.21	<0.20	<0.42	0.20 J	<1.0	<0.16	<0.20	<0.22	0.70 J	--	--	--	--	--
MW-6	3/12/2010	65.93	57.40	8.53	--	--	--	<0.12	<0.21	<0.20	<0.42	<0.15	<0.26	<0.16	<0.20	<0.22	2.0	--	--	--	--	--
MW-6	6/4/2010	65.93	53.33	12.60	--	<80.0	<400	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.6	--	--	--	--	--
MW-6	9/2/2010	65.93	59.01	6.92	--	**129**	**460**	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.1	--	--	--	--	--
MW-6	12/1/2010	65.93	56.39	9.54	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--
MW-6	3/8/2011	65.93	53.53	12.40	--	<75.5	<377	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.1	--	--	--	--	--
MW-6	6/16/2011	65.93	45.00	20.93	--	<83.3	<417	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--
MW-6	9/26/2011	65.93	58.01	7.92	110	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	--	<50	--
MW-6	12/19/2011	65.93	58.09	7.84	--	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	<0.8	--	--	--	<50	--
MW-6	3/23/2012	65.93	51.73	14.20	--	**190**	**750**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	<0.8	--	--	--	<50	--
MW-6	6/18/2012	65.93	51.33	14.60	--	68	390	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-6	8/28/2012	65.93	56.33	9.60	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-6	12/17/2012	65.93	52.55	13.38	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	<0.8	--	--	--	<50	--
MW-6	3/5/2013	65.93	56.90	9.03	--	<29	120	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	1	--	--	--	<50	--
MW-6	6/21/2013	65.93	55.40	10.53	--	**88**	**740**	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	--	<50	--
MW-6	9/9/2013	65.93	58.05	7.88	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	1	--	--	--	<50	--
MW-6	12/19/2013	65.93	57.23	8.70	--	<29	<67	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	<0.8	--	--	--	<50	--
MW-6	3/26/2014	65.93	53.98	11.95	--	50	290	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	2	--	--	--	<50	--
MW-6	6/16/2014	65.93	53.77	12.16	--	34	210	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	2	--	--	--	<50	--
MW-6	9/11/2014	65.93	57.82	8.11	--	<29	<68	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	0.7	--	--	--	<50	--
MW-6	3/24/2015	65.93	54.33	11.60	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	--	--	--	<50	--
MW-6	10/25/2017	65.93	--	--	<100	<430	<430	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	<1	--	--	--	--	--
MW-6	7/19/2019	65.93	57.15	8.78	<100	<417	<417	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	1.0	<1.0	---	---	---	---

Table 2

Summary of Historical Groundwater Data
Former Unocal Facility
Phillips 66 Site 0978
1300 West 12th Street
Vancouver, Washington

Well ID	Sample Date	TOC Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	TPHg (ug/L)	TPHd (ug/L)	TPHo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Chloroform (ug/L)	Methylene Chloride (ug/L)	MTBE (ug/L)	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	Dissolved Lead (ug/L)	Total Lead (ug/L)	Ethanol (ug/L)	Dissolved Oxygen (mg/L)
MTCA Method A Cleanup Levels:					**1,000/800[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**NE**	**5**	**20**	**200**	**5**	**5**	**NE**	**15**	**15**	**NE**	**NA**
MW-7	7/19/2019	67.12	58.42	8.70	<100	<417	<417	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	1.0	<1.0	---	---	---	---
MW-8	7/19/2019	67.63	58.87	8.76	<100	<392	<392	<1.0	<1.0	<1.0	<3.0	1.3	<4.0	<1.0	<1.0	<0.40	<1.0	<1.0	---	---	---	---
MW-9	7/19/2019	52.66	43.91	8.75	<100	<392	<392	<1.0	<1.0	<1.0	<3.0	3.5	<4.0	<1.0	<1.0	<0.40	1.2	<1.0	---	---	---	---
MW-10	7/19/2019	52.94	44.21	8.73	<100	<417	<417	<1.0	<1.0	<1.0	<3.0	<4.0	<4.0	<1.0	<1.0	<0.40	1.5	<1.0	---	---	---	---

Notes:

Bold values equal or exceed Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level, per Cleanup Level and Risk Calculation (CLARC) data tables published in August 2015.

Groundwater monitoring data and laboratory analytical results prior to September 26, 2011 provided by STANTEC Consulting Corporation.

Top of casing (TOC) elevations were surveyed in 2019 in reference to North American Vertical Datum of 88 (NAV88), with the exception of well MW-6, which was inaccessible. The TOC for MW-6 is an estimate based on historical data.

GW = Groundwater

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

USEPA = United States Environmental Protection Agency

µg/L = Micrograms per liter

mg/L = Milligrams per liter

-- = Not Analyzed, Sampled, or Measured

NA = Not Applicable

NE = Not Established

< = Less than the stated laboratory reporting limit

TPH as Gasoline-range organics (TPHg) analyzed by Northwest Method NWTPH-Gx.

TPH as Diesel-range organics (TPHd) analyzed by Northwest Method NWTPH-Dx.

TPH as Heavy Oil-range organics (TPHo) analyzed by Northwest Method NWTPH-Dx.

Benzene, toluene, ethylbenzene, total xylenes (BTEX) analyzed by USEPA Method 8260B

Chloroform and Methylene Chloride analyzed by USEPA Method 8260B.

Methyl tert-butyl ether (MTBE) analyzed by EPA Method 8260B.

1,1,1-Trichloroethane (TCA) analyzed by USEPA Method 8260B.

Tetrachloroethene (PCE) analyzed by EPA Method 8260B

Trichloroethene (TCE) analyzed by EPA Method 8260B

Total and dissolved lead analyzed by USEPA Method 200 or 6000/7000 Series.

Ethanol analyzed by USEPA Method 8260B.

* Detected compounds may be due to oil, but also include non-petroleum peaks that suggest the presence of biogenic interferences

[a] Concentration levels stated by MTCA Method A for TPH-G is 800 µg/L when benzene is present.

[b] TOC referenced to a site datum with an assumed elevation of 100.00 feet.

[c] This sample was collected as a field duplicate.

Appendices

Appendix A
Summary of Previous Investigations and Remedial Actions

Appendix A Summary of Previous Site Investigations and Remedial Activities

1997-98 Soil Investigation and Site Characterization Activities: In 1997, Pacific Environmental Group (PEG) conducted soil probe investigations at the Site. Areas of Concern (AOC) were identified during Due Diligence Assessment activities previously performed by PEG for Tosco. The AOC investigated by PEG included areas adjacent to the aboveground storage tanks (ASTs), the underground storage tanks (USTs), oil/water separators, pipelines, loading rack, processing units, and storage areas. Nine hand auger borings (B-4, B-7 through B-14) were advanced, and seven soil probes were installed (B-1, B-2, B-3, B-5, B-6, B-15, and B-16). Laboratory analytical results indicated total petroleum hydrocarbons (TPH)-diesel (TPHd) and TPH-oil (TPHo) range exceeded Washington State Department of Ecology's (Ecology) Model Toxics Control Act (MTCA) Method A soil cleanup levels in a few of the locations. Additional information is available in PEG's *Soil Investigation* report*,* dated November 7, 1997.

In March 1998, Tosco entered the site into Ecology's Voluntary Cleanup Program. Also In 1998, GeoEngineers conducted site characterization activities to further delineate the vertical extent of petroleum hydrocarbon-affected soil in areas where concentrations exceeded MTCA Method A soil cleanup levels previously identified by PEG. Four shallow hand-auger borings (HA-1 through HA-4) to depths of 3 and 8 feet below ground surface (bgs) were advanced to evaluate soil conditions where surface obstructions did not permit drilling. Seven deep borings (MW-1 through MW-3 and GEI-1 through GEI-4) were advanced to depths ranging between 21.5 and 50 feet bgs. Three groundwater monitoring wells were installed (MW-1 through MW-3) in the deeper borings. The depth of contaminated soils appeared to be limited to approximately 5 feet bgs or less. Additional information is available in GeoEngineer's *Site Characterization Activities* report*,* dated August 17, 1998.

1998 UST Decommissioning: In November 1998, CET Environmental Services Inc. (CET) proceeded with decommissioning of a UST at the facility. Prior to commencing activities, 320 gallons of diesel fuel was removed from the tank via a CET vacuum truck. No visible contamination was detected in the excavation. However, soil samples collected from the excavation and analyzed by EPA Method 418.1 indicated minor petroleum impacts on each wall of the excavation.

Additional information is available in CET *Site Report for UST Decommissioning, Inman Oil – Vancouver, Washington,* dated December 10, 1998.

1999 Site Characterization: In 1999, Parametrix Inc. (Parametrix) performed site characterization activities to further understand potential impacts associated with areas of concern at the site. A summary of the investigation results is presented below.

- Soil in the vicinity of UST-1 did not contain petroleum hydrocarbons at concentrations above MTCA Method A cleanup levels.
- Soil in the vicinity of UST-2 contained concentrations of TPHd, TPHo, total lead, and tetrachloroethylene (PCE) above MTCA Method A cleanup levels.
- UST-3 was abandoned in 1999. Soil samples associated with the abandonment did not contain petroleum hydrocarbons above MTCA Method A cleanup levels.
- Groundwater at the site exceeded MTCA Method A cleanup levels for TPH, total lead, and PCE.

Additional information is available in the Parametrix *Site Characterization Report*, dated January 2000.

2000 UST Decommissioning: In March 2000, ATC Associated, Inc. (ATC) decommissioning the former 5,000-gallon waste oil UST located on the northwestern corner of the facility. Groundwater was not encountered during excavation activities, and soil samples were collected beneath each end of the UST and from the middle of the former UST location. The soil samples were analyzed by NWTPH-HCID, total metals including cadmium, chromium, lead, and zinc, and/or VOCs. TPH was not detected above laboratory reporting limits in the three samples and VOCs were not detected above laboratory reporting limits in the sample collected from the middle of the UST. Metals were detected below their respective MTCA Method A or B cleanup levels.

Additional information is available in ATC's *Report of Waste Water/Former Waste Oil UST Decommissioning,* dated April 19, 2000.

2014 PCE Source Evaluation: In 2014, Leidos evaluated potential sources of PCE to develop a path forward. PCE soil concentrations have been detected in two soil samples at 6 feet bgs near the former UST-2 in the northwest corner of the property. PCE was not detected above the laboratory reporting limits in any of the remaining samples collected at depths ranging between 4 to 40 feet bgs.

PCE is present in groundwater samples from Site wells, but has been decreasing in concentrations in all wells. Several facilities have been identified in the area as potential sources. Additional information is available in the Leidos *Tetrachlorethene Source Evaluation*, dated April 28, 2014.

2019 Site Investigation: In 2019, GHD advanced two soil borings (B-17 and B-18) and installed four groundwater monitoring wells (MW-7 through MW-10) to evaluated soil and groundwater conditions, and define the MTCA boundary. The contaminants of concern were not detected in the analyzed soil samples at concentrations above laboratory reporting limits and/or MTCA cleanup levels. PCE was detected in several on-site wells at concentrations below the MTCA Method A cleanup level. No other contaminants of concern were detected in groundwater above laboratory reporting limits and/or MTCA Method cleanup levels

Appendix B
Boring Logs

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: B-17
DATE COMPLETED: May 30, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CONCRETE						
	GW-GRAVEL, with sand, well graded, dark gray	1.00					0.0
2	SP-SAND, coarse grained, with gravel, no odor, dark gray	2.00					0.0
4			B-17-4'				0.0
	SP-SAND, coarse grained, well graded, very dark gray/brown	5.00				9	0.0
6							
	SP-SAND, with trace gravel, coarse grained, dark gray	7.00				20	0.0
8							
10			B-17-10'			34	0.0 0.2
	END OF BOREHOLE @ 10.5ft BGS	10.50					
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (B-17-4', B-17-10')

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: B-18
DATE COMPLETED: May 31, 2019
DRILLING METHOD: Air Knife/Vac/Hand Auger
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	PID (ppm)
	GRAVEL	0.20					0.0
	SM-SILTY SAND, with gravel, dark grayish brown, no odor						0.0
	SP-SAND, with gravel, coarse grained, dark grayish brown, no odor	4.00					0.0
			B-18-6'				0.0
	- trace gravel, well graded, no odor at 8.0ft BGS						0.0
			B-18-10'				0.0
	END OF BOREHOLE @ 10.3ft BGS	10.30					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (B-18-6', B-18-10')

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-7
DATE COMPLETED: June 3, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	'N' VALUE	PID (ppm)
0	ASPHALT	0.40						
2	GP-GRAVEL, with sand, poorly graded, dark gray, no odor	2.50						0.0
4	GP-GRAVEL, with sand, coarse sand, dark brown, no odor	5.00						0.0
6	GW-GRAVEL, with sand, well graded gravel, some large cobble							
8								
10	SP-SAND, coarse grained, very dark grayish brown, no odor	10.00					12	0.0
12								
14								
16	SP-SAND, coarse grained, with trace fine, dark grayish brown	15.00					13	0.0
18								
20	SP-SAND, coarse grained, well graded, subrounded, dark grayish brown	20.00					25	0.0
22								
24	- no odor at 25.0ft BGS							
26			Bentonite				17	0.0
28								
30	- coarse sand with trace fines, no odor at 30.0ft BGS						17	0.0
32								
34								
36	SP-SAND, coarse grained, well graded, subrounded, dark grayish-brown, no odor	35.00					16	0.0
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STATIC WATER LEVEL

CHEMICAL ANALYSIS

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-7
DATE COMPLETED: June 3, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
42	SP-SAND, fine grained, pale brown, no odor	40.00					16	0.0
44								
46							15	0.0
48								
50	SP-SAND, fine grained, pale brown	50.00		MW-7-50			18	0.9
52								
54								
56	SP-SAND, fine grained, subrounded, pale brown	55.00		MW7-55			14	0.2
58								
60	SP-SAND, coarse grained, black, saturated, no odor	60.00	Sand Pack				>50	0.1
62			Well Screen					
64								
66	SP-SAND, coarse grained, well graded, subrounded, very dark gray-brown	65.00					18	0.0
68								
70	END OF BOREHOLE @ 70.0ft BGS	70.00						0.7
72								
74								
76								
78								

WELL DETAILS
Screened interval:
55.00 to 70.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: #10
Material: PVC
Sand Pack:
52.00 to 70.00ft BGS
Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STATIC WATER LEVEL

CHEMICAL ANALYSIS

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-8
DATE COMPLETED: June 3, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	ASPHALT	0.40						0.0
2	GP-GRAVEL, poorly graded, with sand, dark gray, no odor							
		3.00						
4	GW-GRAVEL, well graded, with sand							
6								
8								
10								
		11.00						
12	SP-SAND, coarse grained, with gravel, brown						20	0.0
14								
		15.00						
16	SP-SAND, coarse grained, poorly graded, subrounded, with trace fines, very dark grayish-brown						13	
18								
		20.00						
20	SP-SAND, coarse grained, with trace fines, poorly graded, subrounded, brown						20	0.0
22								
24								
		25.00						
26	SP-SAND, coarse grained, well graded, subangular		Bentonite				14	0.0
28								
30							14	0.0
32								
34								
		35.00						
36	SP-SAND, coarse grained, poorly graded, subrounded, with fines, dark grayish-brown, no odor						20	0.0
38								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STATIC WATER LEVEL

CHEMICAL ANALYSIS

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-8
DATE COMPLETED: June 3, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	'N' VALUE	PID (ppm)
42	SP-SAND, fine grained, light grayish brown, no odor	40.00					26	0.0
44								
46							20	0.0
48								
50	SP-SAND, fine grained, grayish-brown, no odor	50.00		MW-8-50			19	0.0
52								
54								
56	SP-SAND, fine grained, grayish-brown, saturated, no odor	55.00		MW-8-55			10	0.0
58								
60	SP-SAND, coarse grained, with trace gravel, very dark grayish-brown, saturated, no odor	60.00	Sand Pack				24	0.0
62			Well Screen					
64								
66	SP-SAND, coarse grained, subrounded, well graded, dark grayish-brown	65.00					20	0.0
68								
70	END OF BOREHOLE @ 70.0ft BGS	70.00						0.0
72								
74								
76								
78								

WELL DETAILS
Screened interval:
55.00 to 70.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: #10
Material: PVC
Sand Pack:
52.00 to 70.00ft BGS
Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STATIC WATER LEVEL

CHEMICAL ANALYSIS

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-9
DATE COMPLETED: June 6, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	'N' VALUE	PID (ppm)
0	GRAVEL, parking lot							
2	SP-SAND, coarse grained, with gravel, brown	2.00						0.0
4				MW-9-4'				0.0
6	SP-SAND, coarse grained, with trace fines, subangular, well graded, dark grayish brown	5.00					9	0.0
8								
10	- no odor at 10.0ft BGS							0.3
12								
14								
16	SP-SAND, coarse grained, with gravel, dark grayish-brown	15.00	Bentonite				10	0.0
18								
20	SP-SAND, coarse grained, well graded, subrounded, grayish-brown	20.00					10	0.2
22								
24								
26							2	0.0
28								
30	SP-SAND, coarse grained, brown, no odor	30.00					2	0.0
32	SP-SAND, coarse grained, subrounded, well graded, very dark grayish-brown	31.50					4	0.0
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽
CHEMICAL ANALYSIS (oval)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-9
DATE COMPLETED: June 6, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
36	SP-SAND, fine to coarse grained, poorly graded, grayish-brown	35.00					5	0.0
38	SP-SAND, coarse grained, with gravel, subrounded, poorly graded, fine sands, no odor	38.00					20	0.5
40	SP-SAND, fine grained, with coarse sand, grayish-brown, no odor	40.00	Sand Pack	MW-9-40			6	0.0
42			Well Screen					
44								
46	SP-SAND, medium to fine grained, grayish-brown, saturated, no odor	45.00		MW-9-45			13	0.0
48								
50	- medium to coarse grained, very dark grayish-brown, saturated, no odor at 50.0ft BGS	50.00					>50	0.0
52	END OF BOREHOLE @ 50.0ft BGS							
54								
56								
58								
60								
62								
64								
66								
68								

WELL DETAILS
Screened interval:
35.00 to 50.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: #10
Material: PVC
Sand Pack:
32.00 to 50.00ft BGS
Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽
CHEMICAL ANALYSIS (MW-9-40, MW-9-45)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-10
DATE COMPLETED: June 3, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	GRAVEL, parking lot							
	SP-SAND, with large cobbles 2" - 4" in size	1.00						
	SP-SAND, coarse grained, trace gravel, very dark grayish-brown, no odor	5.00					8	0.0
							11	0.0
	SP-SAND, coarse grained, with trace gravel, brown	15.00	Bentonite				17	0.0
	SP-SAND, coarse grained, with trace gravel, very dark grayish-brown	20.00					15	0.0
	SP-SAND, fine grained, light grayish brown, no odor	25.00					13	0.0
							13	0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽
CHEMICAL ANALYSIS ⬭

OVERBURDEN LOG 11145925.GPJ CRA_CORP.GDT 8/1/19

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Phillips 66 Site 0978
PROJECT NUMBER: 11145925
CLIENT: Phillips 66 Company
LOCATION: 1300 W 12th St, Vancouver, WA

HOLE DESIGNATION: MW-10
DATE COMPLETED: June 3, 2019
DRILLING METHOD: Air Knife/Vac/HSA
FIELD PERSONNEL: B. Pauley

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
36	SP-SAND, fine grained, light grayish-brown	35.00		MW-10-35'			13	0.0
38								
40	- saturated at 40.0ft BGS		▽ Sand Pack	MW-10-40'			14	0.0
42			Well Screen					
44								
46	- dark olive-brown, saturated at 45.0ft BGS						18	
48								0.0
	SP-SAND, coarse grained, very dark gray, no odor	49.00					>50	
50	- fine sand, grayish-brown, saturated at 50.0ft BGS	50.00						0.0
52	END OF BOREHOLE @ 50.0ft BGS							
54								
56								
58								
60								
62								
64								
66								
68								

WELL DETAILS
Screened interval:
35.00 to 50.00ft BGS
Length: 15ft
Diameter: 2in
Slot Size: #10
Material: PVC
Sand Pack:
32.00 to 50.00ft BGS
Material: Silica

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽
CHEMICAL ANALYSIS ⬭

Appendix C
Survey Data

MONITORING WELL SURVEY

PHILLIPS 66 SITE 0978

SITUATED IN THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CITY OF VANCOUVER, COUNTY OF CLARK, STATE OF WASHINGTON.

N

SCALE: 1"=30'

0' 30' 60'

LEGEND

- = MONITORING WELL AS NOTED
- = SOIL BORING AS NOTED
- = SITE BENCHMARK AS NOTED

HORIZONTAL DATUM

NAD 83/2011 EPOCH 2010.0000
WASHINGTON STATE PLANE COORDINATE SYSTEM
SOUTH ZONE 4602, U.S. SURVEY FEET.

VERTICAL DATUM

NAVD 88 (GEOID2012B)

SITE BENCHMARK

SWLS INC SITE CONTROL POINT ID 2 LOCATION AS SHOWN. ELEVATION OF MARK IS 65.95 FEET.

NOTES

AERIAL PHOTO SHOWN FOR VISUALIZATION PURPOSE ONLY. LOCATION IS APPROXIMATE

GREGORY D. SPURLOCK
STATE OF WASHINGTON
24356
REGISTERED
PROFESSIONAL LAND SURVEYOR

07-23-19

STATEWIDE LAND SURVEYING INC.
43 NW AVA AVE. GRESHAM, OR 97030
O: 503-665-7777 F: 503-665-7988
EMAIL: SURVEY@STATEWIDESURVEYING.COM
WEB: WWW.STATEWIDESURVEYING.COM

DRAWN DATE: 07/23/19
DRAWN: G.W.E.
REVIEW DATE: 07/23/19
REVIEWED: G.D.S.
SURVEY DATE: 07/11/19
SHEET: 1/1
CLIENT: GHD
JOB NUMBER: 2019-234
SCALE: 1"=30'

STATEWIDE LAND SURVEYING INC.

Phillips 66 Site 0978							
Horizontal Datum		**UTM Zone**	**Vertical Datum**	**Address**			
Nad83/2011 Washington State Plane South Zone 4602, US Survey Feet		10	NAVD88	1300 West 12th St Vancouver, Wa 98660			
Well	**Northing (Y)**	**Easting (X)**	**Latitude**	**Longitude**	**El. Surface**	**El. Rim**	**El. PVC**
MONITORING WELLS							
MW-1	116215.89	1081742.41	N45°37'50.9131"	W122°41'02.1991"	53.22	53.29	52.90
MW-2	116178.59	1081670.13	N45°37'50.5253"	W122°41'03.2013"	53.16	53.17	52.69
MW-4	116246.92	1081638.00	N45°37'51.1908"	W122°41'03.6799"	52.26	52.23	51.52
MW-5A	116297.57	1081657.52	N45°37'51.6960"	W122°41'03.4251"	52.64	52.64	52.15
MW-6	116306.24	1081784.20	N45°37'51.8162"	W122°41'01.6466"	66.41	66.49	NA
MW-7	116263.00	1081804.92	N45°37'51.3952"	W122°41'01.3383"	67.33	67.37	67.12
MW-8	116217.48	1081803.48	N45°37'50.9456"	W122°41'01.3408"	67.96	67.97	67.63
MW-9	116124.39	1081727.84	N45°37'50.0063"	W122°41'02.3684"	53.02	53.10	52.66
MW-10	116166.66	1081694.83	N45°37'50.4143"	W122°41'02.8493"	53.30	53.38	52.94
Boring	**Northing (Y)**	**Easting (X)**	**Latitude**	**Longitude**	**El. Surface**	**El. Rim**	**El. PVC**
SOIL BORINGS							
B-17	116170.34	1081741.41	N45°37'50.4634"	W122°41'02.1955"	53.15		
B-18	116305.90	1081657.61	N45°37'51.7782"	W122°41'03.4270"	52.43		
Notes							
Project elevations were established with the Washington State GPS Reference Network. Differential levels were used to collect the well data from the project elevation reference point. See provided well exhbit map.							
Survey Date: 07-11-19							

43 NW Ava Avenue Gresham, Oregon 97030
www.statewidesurveying.com survey@statewidesurveying.com
(o) 503.665-7777 (f) 503-665.7988

Appendix D
Laboratory Analytical Data

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

June 12, 2019

Matthew Davis
GHD Services Inc.
1117 Tacoma Avenue South
Tacoma, WA 98402

RE: Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Dear Matthew Davis:
Enclosed are the analytical results for sample(s) received by the laboratory on June 01, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
(206)957-2426
Project Manager

Enclosures

cc: Jeffrey Cloud, GHD Services Inc.
Eric Maise, GHD Services Inc.
Brian Pauley, GHD Services, Inc.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

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SAMPLE SUMMARY

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10477304001	**SO-11145925-053019-BP-B-17-4**	Solid	05/30/19 15:40	06/01/19 09:20
10477304002	**SO-11145925-053019-BP-MW-9-4**	Solid	05/30/19 16:45	06/01/19 09:20
10477304003	**SO-11145925-053119-BP-B-18-6**	Solid	05/31/19 09:30	06/01/19 09:20
10477304004	**SO-11145925-053119-BP-B-18-10**	Solid	05/31/19 10:15	06/01/19 09:20
10477304005	**Trip Blank**	Solid	05/30/19 00:00	06/01/19 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10477304001	**SO-11145925-053019-BP-B-17-4**	NWTPH-Dx	JVM	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10477304002	**SO-11145925-053019-BP-MW-9-4**	NWTPH-Dx	JVM	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10477304003	**SO-11145925-053119-BP-B-18-6**	NWTPH-Dx	JVM	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10477304004	**SO-11145925-053119-BP-B-18-10**	NWTPH-Dx	JVM	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10477304005	**Trip Blank**	EPA 8260B	GDM	42	PASI-M

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: GHD Services Inc
Date: June 12, 2019

General Information:
4 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 610687

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10477304001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3299574)
  - Diesel Fuel Range
  - Motor Oil Range
- MSD (Lab ID: 3299575)
  - Motor Oil Range

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Method: **NWTPH-Gx**
Description: NWTPH-Gx GCV
Client: GHD Services Inc
Date: June 12, 2019

General Information:
4 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with NWTPH-Gx with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Method: **EPA 6010D**
Description: 6010D MET ICP
Client: GHD Services Inc
Date: June 12, 2019

General Information:
4 samples were analyzed for EPA 6010D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Method: **EPA 8260B**
Description: 8260B MSV 5035 Low Level
Client: GHD Services Inc
Date: June 12, 2019

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035 Low with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 611110

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10476519005

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3301739)
  - Dichlorodifluoromethane
  - Vinyl chloride

R1: RPD value was outside control limits.

- MSD (Lab ID: 3301740)
  - Chloromethane
  - Dichlorodifluoromethane
  - Vinyl chloride

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Method: **EPA 8260B**
Description: 8260B MSV 5035 Low Level
Client: GHD Services Inc
Date: June 12, 2019

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053019-BP-B-17-4 **Lab ID: 10477304001** Collected: 05/30/19 15:40 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	**123**	mg/kg	78.9	5	06/05/19 15:40	06/07/19 14:14	68334-30-5	M1
Motor Oil Range	**366**	mg/kg	52.6	5	06/05/19 15:40	06/07/19 14:14		M1
Surrogates								
n-Triacontane (S)	89	%.	50-150	5	06/05/19 15:40	06/07/19 14:14	638-68-6	
o-Terphenyl (S)	107	%.	50-150	5	06/05/19 15:40	06/07/19 14:14	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	6.3	1	06/10/19 16:43	06/10/19 19:57		
Surrogates								
a,a,a-Trifluorotoluene (S)	113	%.	50-150	1	06/10/19 16:43	06/10/19 19:57	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**72.7**	mg/kg	2.5	5	06/06/19 17:47	06/07/19 14:30	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**6.3**	%	0.10	1		06/07/19 11:51		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	106-46-7	
Benzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	75-27-4	
Bromoform	ND	mg/kg	0.025	1	06/06/19 14:00	06/06/19 19:49	75-25-2	
Bromomethane	ND	mg/kg	0.025	1	06/06/19 14:00	06/06/19 19:49	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	56-23-5	
Chlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	75-00-3	
Chloroform	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	75-71-8	
Ethylbenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	1634-04-4	
Methylene Chloride	ND	mg/kg	0.025	1	06/06/19 14:00	06/06/19 19:49	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053019-BP-B-17-4 **Lab ID: 10477304001** Collected: 05/30/19 15:40 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	127-18-4	
Toluene	**0.0057**	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	108-88-3	
Trichloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 19:49	75-69-4	
Vinyl chloride	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	75-01-4	
Xylene (Total)	ND	mg/kg	0.015	1	06/06/19 14:00	06/06/19 19:49	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0099	1	06/06/19 14:00	06/06/19 19:49	179601-23-1	
o-Xylene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 19:49	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	75-125	1	06/06/19 14:00	06/06/19 19:49	17060-07-0	
Toluene-d8 (S)	103	%.	75-125	1	06/06/19 14:00	06/06/19 19:49	2037-26-5	
4-Bromofluorobenzene (S)	111	%.	75-125	1	06/06/19 14:00	06/06/19 19:49	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053019-BP-MW-9-4 **Lab ID: 10477304002** Collected: 05/30/19 16:45 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	16.0	1	06/05/19 15:40	06/07/19 10:51	68334-30-5	
Motor Oil Range	ND	mg/kg	10.7	1	06/05/19 15:40	06/07/19 10:51		
Surrogates								
n-Triacontane (S)	62	%.	50-150	1	06/05/19 15:40	06/07/19 10:51	638-68-6	
o-Terphenyl (S)	88	%.	50-150	1	06/05/19 15:40	06/07/19 10:51	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	6.9	1	06/10/19 16:43	06/10/19 20:14		
Surrogates								
a,a,a-Trifluorotoluene (S)	106	%.	50-150	1	06/10/19 16:43	06/10/19 20:14	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**4.4**	mg/kg	0.52	1	06/06/19 17:47	06/07/19 13:52	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**6.8**	%	0.10	1		06/07/19 11:52		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	106-46-7	
Benzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	75-27-4	
Bromoform	ND	mg/kg	0.025	1	06/06/19 14:00	06/06/19 20:09	75-25-2	
Bromomethane	ND	mg/kg	0.025	1	06/06/19 14:00	06/06/19 20:09	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	56-23-5	
Chlorobenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	75-00-3	
Chloroform	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	75-71-8	
Ethylbenzene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	1634-04-4	
Methylene Chloride	ND	mg/kg	0.025	1	06/06/19 14:00	06/06/19 20:09	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053019-BP-MW-9-4 **Lab ID: 10477304002** Collected: 05/30/19 16:45 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	127-18-4	
Toluene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	108-88-3	
Trichloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:09	75-69-4	
Vinyl chloride	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	75-01-4	
Xylene (Total)	ND	mg/kg	0.015	1	06/06/19 14:00	06/06/19 20:09	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	10061-01-5	
m&p-Xylene	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 20:09	179601-23-1	
o-Xylene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	1	06/06/19 14:00	06/06/19 20:09	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1	06/06/19 14:00	06/06/19 20:09	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1	06/06/19 14:00	06/06/19 20:09	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125	1	06/06/19 14:00	06/06/19 20:09	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053119-BP-B-18-6 **Lab ID: 10477304003** Collected: 05/31/19 09:30 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	**31.0**	mg/kg	16.1	1	06/05/19 15:40	06/07/19 10:30	68334-30-5	
Motor Oil Range	**136**	mg/kg	10.8	1	06/05/19 15:40	06/07/19 10:30		
Surrogates								
n-Triacontane (S)	86	%.	50-150	1	06/05/19 15:40	06/07/19 10:30	638-68-6	
o-Terphenyl (S)	95	%.	50-150	1	06/05/19 15:40	06/07/19 10:30	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	6.1	1	06/10/19 16:43	06/10/19 19:06		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	50-150	1	06/10/19 16:43	06/10/19 19:06	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**20.0**	mg/kg	0.53	1	06/06/19 17:47	06/07/19 13:55	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**7.5**	%	0.10	1		06/07/19 11:52		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	106-46-7	
Benzene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	75-27-4	
Bromoform	ND	mg/kg	0.026	1	06/06/19 14:00	06/06/19 20:28	75-25-2	
Bromomethane	ND	mg/kg	0.026	1	06/06/19 14:00	06/06/19 20:28	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	56-23-5	
Chlorobenzene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	108-90-7	
Chloroethane	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	75-00-3	
Chloroform	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	67-66-3	
Chloromethane	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	75-71-8	
Ethylbenzene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	1634-04-4	
Methylene Chloride	ND	mg/kg	0.026	1	06/06/19 14:00	06/06/19 20:28	75-09-2	
Naphthalene	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053119-BP-B-18-6 **Lab ID: 10477304003** Collected: 05/31/19 09:30 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	127-18-4	
Toluene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	108-88-3	
Trichloroethene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.013	1	06/06/19 14:00	06/06/19 20:28	75-69-4	
Vinyl chloride	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	75-01-4	
Xylene (Total)	ND	mg/kg	0.015	1	06/06/19 14:00	06/06/19 20:28	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	10061-01-5	
m&p-Xylene	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 20:28	179601-23-1	
o-Xylene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0051	1	06/06/19 14:00	06/06/19 20:28	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%.	75-125	1	06/06/19 14:00	06/06/19 20:28	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1	06/06/19 14:00	06/06/19 20:28	2037-26-5	
4-Bromofluorobenzene (S)	106	%.	75-125	1	06/06/19 14:00	06/06/19 20:28	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053119-BP-B-18-10 **Lab ID: 10477304004** Collected: 05/31/19 10:15 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	**38.6**	mg/kg	15.5	1	06/05/19 15:40	06/07/19 10:41	68334-30-5	
Motor Oil Range	**167**	mg/kg	10.4	1	06/05/19 15:40	06/07/19 10:41		
Surrogates								
n-Triacontane (S)	81	%.	50-150	1	06/05/19 15:40	06/07/19 10:41	638-68-6	
o-Terphenyl (S)	94	%.	50-150	1	06/05/19 15:40	06/07/19 10:41	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	6.1	1	06/10/19 16:43	06/10/19 19:23		
Surrogates								
a,a,a-Trifluorotoluene (S)	112	%.	50-150	1	06/10/19 16:43	06/10/19 19:23	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**16.0**	mg/kg	0.53	1	06/06/19 17:47	06/07/19 15:25	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**6.1**	%	0.10	1		06/07/19 11:52		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	106-46-7	
Benzene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	75-27-4	
Bromoform	ND	mg/kg	0.023	1	06/06/19 14:00	06/06/19 20:47	75-25-2	
Bromomethane	ND	mg/kg	0.023	1	06/06/19 14:00	06/06/19 20:47	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	56-23-5	
Chlorobenzene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	75-00-3	
Chloroform	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	75-71-8	
Ethylbenzene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	1634-04-4	
Methylene Chloride	ND	mg/kg	0.023	1	06/06/19 14:00	06/06/19 20:47	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: SO-11145925-053119-BP-B-18-10 **Lab ID: 10477304004** Collected: 05/31/19 10:15 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	127-18-4	
Toluene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	108-88-3	
Trichloroethene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 20:47	75-69-4	
Vinyl chloride	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	75-01-4	
Xylene (Total)	ND	mg/kg	0.014	1	06/06/19 14:00	06/06/19 20:47	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0093	1	06/06/19 14:00	06/06/19 20:47	179601-23-1	
o-Xylene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0046	1	06/06/19 14:00	06/06/19 20:47	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%.	75-125	1	06/06/19 14:00	06/06/19 20:47	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1	06/06/19 14:00	06/06/19 20:47	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125	1	06/06/19 14:00	06/06/19 20:47	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Sample: Trip Blank **Lab ID: 10477304005** Collected: 05/30/19 00:00 Received: 06/01/19 09:20 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	106-46-7	
Benzene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	75-27-4	
Bromoform	ND	mg/kg	0.020	1	06/06/19 14:00	06/06/19 17:33	75-25-2	
Bromomethane	ND	mg/kg	0.020	1	06/06/19 14:00	06/06/19 17:33	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	56-23-5	
Chlorobenzene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	108-90-7	
Chloroethane	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	75-00-3	
Chloroform	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	67-66-3	
Chloromethane	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	75-71-8	
Ethylbenzene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	1634-04-4	
Methylene Chloride	ND	mg/kg	0.020	1	06/06/19 14:00	06/06/19 17:33	75-09-2	
Naphthalene	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	91-20-3	
Tetrachloroethene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	127-18-4	
Toluene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	108-88-3	
Trichloroethene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.010	1	06/06/19 14:00	06/06/19 17:33	75-69-4	
Vinyl chloride	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	75-01-4	
Xylene (Total)	ND	mg/kg	0.012	1	06/06/19 14:00	06/06/19 17:33	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0080	1	06/06/19 14:00	06/06/19 17:33	179601-23-1	
o-Xylene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0040	1	06/06/19 14:00	06/06/19 17:33	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1	06/06/19 14:00	06/06/19 17:33	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1	06/06/19 14:00	06/06/19 17:33	2037-26-5	
4-Bromofluorobenzene (S)	104	%.	75-125	1	06/06/19 14:00	06/06/19 17:33	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

QC Batch: 611647 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Solid GCV
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

METHOD BLANK: 3304835 Matrix: Solid
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	mg/kg	ND	5.0	06/10/19 17:42	
a,a,a-Trifluorotoluene (S)	%.	108	50-150	06/10/19 17:42	

LABORATORY CONTROL SAMPLE & LCSD: 3304836 3304837

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	mg/kg	50	43.9	40.9	88	82	69-125	7	20	
a,a,a-Trifluorotoluene (S)	%.				103	97	50-150			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3306280 3306281

Parameter	Units	10477304003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH as Gas	mg/kg	ND	61.2	56.6	63.9	56.6	104	100	48-148	12	30	
a,a,a-Trifluorotoluene (S)	%.						101	99	50-150			

SAMPLE DUPLICATE: 3306282

Parameter	Units	10477304004 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	mg/kg	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	112	109			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

QC Batch: 610840 Analysis Method: EPA 6010D
QC Batch Method: EPA 3050 Analysis Description: 6010D Solids
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

METHOD BLANK: 3300543 Matrix: Solid
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	0.50	06/07/19 13:32	

LABORATORY CONTROL SAMPLE: 3300544

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	46.3	46.7	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3300545 3300546

Parameter	Units	10477304001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/kg	72.7	51.8	52.8	112	113	76	76	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

QC Batch: 611197 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight / %M by ASTM D2974
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

SAMPLE DUPLICATE: 3302381

Parameter	Units	10477256002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.1	20.8	9	30	

SAMPLE DUPLICATE: 3302382

Parameter	Units	10476320017 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.0	10.5	5	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

QC Batch: 611110 Analysis Method: EPA 8260B
QC Batch Method: EPA 5035 Low Analysis Description: 8260B MSV 5035 Low Level
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004, 10477304005

METHOD BLANK: 3301566 Matrix: Solid
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004, 10477304005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	ND	0.0040	06/06/19 16:28	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0040	06/06/19 16:28	
1,1,2-Trichloroethane	mg/kg	ND	0.0040	06/06/19 16:28	
1,1-Dichloroethane	mg/kg	ND	0.0040	06/06/19 16:28	
1,1-Dichloroethene	mg/kg	ND	0.010	06/06/19 16:28	MN
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0040	06/06/19 16:28	
1,2-Dichlorobenzene	mg/kg	ND	0.0040	06/06/19 16:28	
1,2-Dichloroethane	mg/kg	ND	0.0040	06/06/19 16:28	
1,2-Dichloropropane	mg/kg	ND	0.0040	06/06/19 16:28	
1,3-Dichlorobenzene	mg/kg	ND	0.0040	06/06/19 16:28	
1,4-Dichlorobenzene	mg/kg	ND	0.0040	06/06/19 16:28	
Benzene	mg/kg	ND	0.0040	06/06/19 16:28	
Bromodichloromethane	mg/kg	ND	0.0040	06/06/19 16:28	
Bromoform	mg/kg	ND	0.020	06/06/19 16:28	
Bromomethane	mg/kg	ND	0.020	06/06/19 16:28	
Carbon tetrachloride	mg/kg	ND	0.0040	06/06/19 16:28	
Chlorobenzene	mg/kg	ND	0.0040	06/06/19 16:28	
Chloroethane	mg/kg	ND	0.010	06/06/19 16:28	
Chloroform	mg/kg	ND	0.0040	06/06/19 16:28	
Chloromethane	mg/kg	ND	0.010	06/06/19 16:28	
cis-1,2-Dichloroethene	mg/kg	ND	0.0040	06/06/19 16:28	
cis-1,3-Dichloropropene	mg/kg	ND	0.0040	06/06/19 16:28	
Dibromochloromethane	mg/kg	ND	0.0040	06/06/19 16:28	
Dichlorodifluoromethane	mg/kg	ND	0.010	06/06/19 16:28	
Ethylbenzene	mg/kg	ND	0.0040	06/06/19 16:28	
Hexachloro-1,3-butadiene	mg/kg	ND	0.010	06/06/19 16:28	
m&p-Xylene	mg/kg	ND	0.0080	06/06/19 16:28	
Methyl-tert-butyl ether	mg/kg	ND	0.0040	06/06/19 16:28	
Methylene Chloride	mg/kg	ND	0.020	06/06/19 16:28	
Naphthalene	mg/kg	ND	0.010	06/06/19 16:28	
o-Xylene	mg/kg	ND	0.0040	06/06/19 16:28	
Tetrachloroethene	mg/kg	ND	0.0040	06/06/19 16:28	
Toluene	mg/kg	ND	0.0040	06/06/19 16:28	
trans-1,2-Dichloroethene	mg/kg	ND	0.0040	06/06/19 16:28	
trans-1,3-Dichloropropene	mg/kg	ND	0.0040	06/06/19 16:28	
Trichloroethene	mg/kg	ND	0.0040	06/06/19 16:28	
Trichlorofluoromethane	mg/kg	ND	0.010	06/06/19 16:28	
Vinyl chloride	mg/kg	ND	0.0040	06/06/19 16:28	
Xylene (Total)	mg/kg	ND	0.012	06/06/19 16:28	
1,2-Dichloroethane-d4 (S)	%.	93	75-125	06/06/19 16:28	
4-Bromofluorobenzene (S)	%.	103	75-125	06/06/19 16:28	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

METHOD BLANK: 3301566 Matrix: Solid
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004, 10477304005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene-d8 (S)	%.	102	75-125	06/06/19 16:28	

LABORATORY CONTROL SAMPLE: 3301567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.02	0.019	96	72-128	
1,1,2,2-Tetrachloroethane	mg/kg	0.02	0.022	111	74-126	
1,1,2-Trichloroethane	mg/kg	0.02	0.021	106	75-128	
1,1-Dichloroethane	mg/kg	0.02	0.021	105	71-131	
1,1-Dichloroethene	mg/kg	0.02	0.021	105	72-126	
1,2-Dibromoethane (EDB)	mg/kg	0.02	0.021	105	75-126	
1,2-Dichlorobenzene	mg/kg	0.02	0.020	101	73-125	
1,2-Dichloroethane	mg/kg	0.02	0.019	93	72-125	
1,2-Dichloropropane	mg/kg	0.02	0.022	111	75-127	
1,3-Dichlorobenzene	mg/kg	0.02	0.020	102	73-125	
1,4-Dichlorobenzene	mg/kg	0.02	0.020	100	71-126	
Benzene	mg/kg	0.02	0.021	106	71-129	
Bromodichloromethane	mg/kg	0.02	0.020	99	75-125	
Bromoform	mg/kg	0.02	.019J	97	71-125	
Bromomethane	mg/kg	0.02	0.026	131	75-145	
Carbon tetrachloride	mg/kg	0.02	0.019	93	69-131	
Chlorobenzene	mg/kg	0.02	0.020	98	72-126	
Chloroethane	mg/kg	0.02	0.023	113	73-140	
Chloroform	mg/kg	0.02	0.019	94	68-131	
Chloromethane	mg/kg	0.02	0.021	105	66-136	
cis-1,2-Dichloroethene	mg/kg	0.02	0.021	107	73-131	
cis-1,3-Dichloropropene	mg/kg	0.02	0.020	98	74-126	
Dibromochloromethane	mg/kg	0.02	0.019	96	74-125	
Dichlorodifluoromethane	mg/kg	0.02	0.021	106	53-145	
Ethylbenzene	mg/kg	0.02	0.021	105	72-125	
Hexachloro-1,3-butadiene	mg/kg	0.02	0.019	95	69-129	
m&p-Xylene	mg/kg	0.04	0.043	108	71-125	
Methyl-tert-butyl ether	mg/kg	0.02	0.022	109	72-129	
Methylene Chloride	mg/kg	0.02	0.022	110	56-150	
Naphthalene	mg/kg	0.02	0.020	102	71-125	
o-Xylene	mg/kg	0.02	0.021	103	74-125	
Tetrachloroethene	mg/kg	0.02	0.020	101	70-130	
Toluene	mg/kg	0.02	0.021	106	70-125	
trans-1,2-Dichloroethene	mg/kg	0.02	0.021	104	69-132	
trans-1,3-Dichloropropene	mg/kg	0.02	0.021	103	75-125	
Trichloroethene	mg/kg	0.02	0.020	101	75-125	
Trichlorofluoromethane	mg/kg	0.02	0.021	105	65-138	
Vinyl chloride	mg/kg	0.02	0.023	115	68-129	
Xylene (Total)	mg/kg	0.06	0.064	106	72-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

LABORATORY CONTROL SAMPLE: 3301567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%.			94	75-125	
4-Bromofluorobenzene (S)	%.			104	75-125	
Toluene-d8 (S)	%.			104	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3301739 3301740

Parameter	Units	10476519005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.021	0.025	74	106	30-150	18	30	
1,1,2,2-Tetrachloroethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.018	0.022	63	92	30-150	21	30	
1,1,2-Trichloroethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.019	0.023	66	96	39-150	21	30	
1,1-Dichloroethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.026	72	108	30-150	23	30	
1,1-Dichloroethene	mg/kg	<13.4 ug/kg	0.028	0.024	0.024	0.028	85	118	30-150	16	30	
1,2-Dibromoethane (EDB)	mg/kg	<5.4 ug/kg	0.028	0.024	0.017	0.022	61	91	33-150	23	30	
1,2-Dichlorobenzene	mg/kg	<5.4 ug/kg	0.028	0.024	0.014	0.018	51	77	30-150	25	30	
1,2-Dichloroethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.017	0.021	60	88	38-150	21	30	
1,2-Dichloropropane	mg/kg	<5.4 ug/kg	0.028	0.024	0.021	0.025	73	106	37-150	20	30	
1,3-Dichlorobenzene	mg/kg	<5.4 ug/kg	0.028	0.024	0.015	0.020	54	84	30-150	27	30	
1,4-Dichlorobenzene	mg/kg	<5.4 ug/kg	0.028	0.024	0.015	0.019	52	81	30-150	28	30	
Benzene	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.025	71	106	30-150	23	30	
Bromodichloromethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.018	0.021	62	90	36-150	20	30	
Bromoform	mg/kg	<26.9 ug/kg	0.028	0.024	.015J	.018J	53	76	30-150		30	
Bromomethane	mg/kg	<26.9 ug/kg	0.028	0.024	0.034	0.030	121	127	30-150	13	30	
Carbon tetrachloride	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.025	71	106	30-150	23	30	
Chlorobenzene	mg/kg	<5.4 ug/kg	0.028	0.024	0.017	0.022	61	92	30-150	24	30	
Chloroethane	mg/kg	<13.4 ug/kg	0.028	0.024	0.036	0.030	129	125	30-150	20	30	
Chloroform	mg/kg	<5.4 ug/kg	0.028	0.024	0.018	0.023	63	95	30-150	24	30	
Chloromethane	mg/kg	<13.4 ug/kg	0.028	0.024	0.039	0.028	139	118	30-150	33	30	R1
cis-1,2-Dichloroethene	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.024	70	102	37-150	20	30	
cis-1,3-Dichloropropene	mg/kg	<5.4 ug/kg	0.028	0.024	0.017	0.021	61	90	30-150	21	30	
Dibromochloromethane	mg/kg	<5.4 ug/kg	0.028	0.024	0.016	0.020	56	85	31-150	25	30	
Dichlorodifluoromethane	mg/kg	<13.4 ug/kg	0.028	0.024	0.043	0.031	151	128	30-150	33	30	M1,R1
Ethylbenzene	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.025	69	105	30-150	25	30	
Hexachloro-1,3-butadiene	mg/kg	<13.4 ug/kg	0.028	0.024	.013J	0.023	46	96	30-150		30	
m&p-Xylene	mg/kg	<10.8 ug/kg	0.057	0.048	0.039	0.051	70	107	30-150	26	30	
Methyl-tert-butyl ether	mg/kg	<5.4 ug/kg	0.028	0.024	0.019	0.024	67	101	31-150	24	30	
Methylene Chloride	mg/kg	14.5J ug/kg	0.028	0.024	.027J	0.030	46	64	36-150		30	
Naphthalene	mg/kg	0.54J ug/kg	0.028	0.024	.012J	0.014	39	57	30-150		30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3301739 3301740

Parameter	Units	10476519005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
o-Xylene	mg/kg	<5.4 ug/kg	0.028	0.024	0.018	0.023	63	98	30-150	27	30	
Tetrachloroethene	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.027	72	113	30-150	28	30	
Toluene	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.025	72	107	30-150	21	30	
trans-1,2-Dichloroethene	mg/kg	<5.4 ug/kg	0.028	0.024	0.021	0.026	74	110	30-150	22	30	
trans-1,3-Dichloropropene	mg/kg	<5.4 ug/kg	0.028	0.024	0.018	0.022	63	91	35-150	19	30	
Trichloroethene	mg/kg	<5.4 ug/kg	0.028	0.024	0.020	0.025	70	104	30-150	23	30	
Trichlorofluoromethane	mg/kg	<13.4 ug/kg	0.028	0.024	0.042	0.031	149	130	30-150	30	30	
Vinyl chloride	mg/kg	<5.4 ug/kg	0.028	0.024	0.044	0.032	155	132	30-150	32	30	M1,R1
Xylene (Total)	mg/kg	<16.1 ug/kg	0.085	0.071	0.057	0.074	67	104	30-150	26	30	
1,2-Dichloroethane-d4 (S)	%.						94	97	75-125			
4-Bromofluorobenzene (S)	%.						105	105	75-125			
Toluene-d8 (S)	%.						104	104	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

QC Batch: 610687 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3550 Analysis Description: NWTPH-Dx GCS
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

METHOD BLANK: 3299572 Matrix: Solid
Associated Lab Samples: 10477304001, 10477304002, 10477304003, 10477304004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	06/07/19 09:34	
Motor Oil Range	mg/kg	ND	10.0	06/07/19 09:34	
n-Triacontane (S)	%.	90	50-150	06/07/19 09:34	
o-Terphenyl (S)	%.	88	50-150	06/07/19 09:34	

LABORATORY CONTROL SAMPLE: 3299573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	42.6	85	50-150	
Motor Oil Range	mg/kg	50	47.4	95	50-150	
n-Triacontane (S)	%.			94	50-150	
o-Terphenyl (S)	%.			91	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3299574 3299575

Parameter	Units	10477304001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	123	53.1	51.5	222	187	186	124	50-150	17	30	M1
Motor Oil Range	mg/kg	366	53.1	51.5	567	459	379	181	50-150	21	30	M1
n-Triacontane (S)	%.						91	90	50-150			
o-Terphenyl (S)	%.						103	100	50-150			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

METHOD CROSS REFERENCE TABLE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Parameter	Matrix	Analytical Method	Preparation Method
8260B MSV 5035 Low Level	Solid	SW-846 8260B	SW-846 5035A/5030B

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11145925 P66 1300 W 12th AOC
Pace Project No.: 10477304

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10477304001	**SO-11145925-053019-BP-B-17-4**	EPA 3550	610687	NWTPH-Dx	611273
10477304002	**SO-11145925-053019-BP-MW-9-4**	EPA 3550	610687	NWTPH-Dx	611273
10477304003	**SO-11145925-053119-BP-B-18-6**	EPA 3550	610687	NWTPH-Dx	611273
10477304004	**SO-11145925-053119-BP-B-18-10**	EPA 3550	610687	NWTPH-Dx	611273
10477304001	**SO-11145925-053019-BP-B-17-4**	NWTPH-Gx	611647	NWTPH-Gx	611869
10477304002	**SO-11145925-053019-BP-MW-9-4**	NWTPH-Gx	611647	NWTPH-Gx	611869
10477304003	**SO-11145925-053119-BP-B-18-6**	NWTPH-Gx	611647	NWTPH-Gx	611869
10477304004	**SO-11145925-053119-BP-B-18-10**	NWTPH-Gx	611647	NWTPH-Gx	611869
10477304001	**SO-11145925-053019-BP-B-17-4**	EPA 3050	610840	EPA 6010D	611207
10477304002	**SO-11145925-053019-BP-MW-9-4**	EPA 3050	610840	EPA 6010D	611207
10477304003	**SO-11145925-053119-BP-B-18-6**	EPA 3050	610840	EPA 6010D	611207
10477304004	**SO-11145925-053119-BP-B-18-10**	EPA 3050	610840	EPA 6010D	611207
10477304001	**SO-11145925-053019-BP-B-17-4**	ASTM D2974	611197		
10477304002	**SO-11145925-053019-BP-MW-9-4**	ASTM D2974	611197		
10477304003	**SO-11145925-053119-BP-B-18-6**	ASTM D2974	611197		
10477304004	**SO-11145925-053119-BP-B-18-10**	ASTM D2974	611197		
10477304001	**SO-11145925-053019-BP-B-17-4**	EPA 5035 Low	611110	EPA 8260B	611143
10477304002	**SO-11145925-053019-BP-MW-9-4**	EPA 5035 Low	611110	EPA 8260B	611143
10477304003	**SO-11145925-053119-BP-B-18-6**	EPA 5035 Low	611110	EPA 8260B	611143
10477304004	**SO-11145925-053119-BP-B-18-10**	EPA 5035 Low	611110	EPA 8260B	611143
10477304005	**Trip Blank**	EPA 5035 Low	611110	EPA 8260B	611143

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services Inc.	Report To:	matthew.davis@ghd.com, eric.maise@ghd.com	Attention:	Jeffrey Cloud
Address:	3600 Port of Tacoma Road, Suite 302	Copy To:	jeffrey.cloud@ghd.com, brian.pauley@ghd.com	Company Name:	GHD Services Inc. - 340
	Tacoma, WA 98424			Address:	4550 Kruse Way, Suite 300 Lake Oswego, OR 97035
Email:	matthew.davis@ghd.com	Purchase Order #:		Pace Quote:	2026(30)08-06
Phone:	253-507-6217 Fax:	Project Name:	P66 1300 W 12th St AOC 978	Pace Project Manager:	jennifer.gross@pacelabs.com
Requested Due Date:	Standard	Project #:	11145925	Pace Profile #:	38225 / 2 & 3

Regulatory Agency

State / Location: WA / Vancouver

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Sodium Bisulfate	Methanol	Other	Requested Analysis Filtered (Y/N)	NWTPH-Dx	NWTPH-Gx	Lead 6010	6010/7471 RCRA8	8082 PCB	8260 BTEX/MTBE/Naphthalene	8260 HVOC/EDB/EDC	8260 Hexane n-Hexane	8260 VOC Full List	8270 PAHSIM	NW-EPH	NW-VPH	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS			2019 DATE	TIME	2019 DATE	TIME											Analyses Test / Y/N													
1	SO-11145925-053019-BP-B-17-4			5/30	1540	5/30	1540		7										X	X	X			X	X						
2	SO-11145925-053019-BP-MW-9-4			5/30	1645	5/30	1645		7										X	X	X			X	X						
3	SO-11145925-053119-BP-B-18-6			5/31	0930	5/31	0930		10										X	X	X			X	X						
4	SO-11145925-053119-BP-B-18-10			5/31	1015	5/31	1015		10										X	X	X		X	X	X	X		X	X	X	see comments below
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

WO# : 10477304

10477304

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
PCBs, PAHs, NWEPH & NWVPH are contingent analyses	Brian Pauley GHD	5/31/19	1230	Cam via Pace	6/1/19	0920	0.2	Y	Y	Y
SSOW 11145925-2019-01 (11145925-PH-Vancouve)										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Pauley

Page 30 of 31

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 09May2019 Page 1 of 1
	Document No.: F-MN-L-213-rev.28	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** GHD **Project #:** WO#: 10477304

PM: JMG Due Date: 06/17/19

CLIENT: GHD_WA

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial See Exception [ ]

Tracking Number: 7876 0372 0269

Custody Seal on Cooler/Box Present? [X] Yes [ ] No **Seals Intact?** [X] Yes [ ] No **Biological Tissue Frozen?** [ ] Yes [ ] No [X] N/A

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other: _____ **Temp Blank?** [ ] Yes [ ] No

Thermometer: [ ] T1(0461) [X] T2(1336) [ ] T3(0459) [ ] T4(0254) [ ] T5(0489) **Type of Ice:** [X] Wet [ ] Blue [ ] None [ ] Dry [ ] Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C	Cooler Temp Read w/temp blank: 0.1 °C	Average Corrected Temp (no temp blank only): °C See Exceptions [ ]
Correction Factor: +0.1	Cooler Temp Corrected w/temp blank: 0.2 °C	

USDA Regulated Soil: ([ ] N/A, water sample/Other: _____) **Date/Initials of Person Examining Contents:** CG 6/11/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? [ ] Yes [X] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [X] No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	[X] Yes	[ ] No		1.
Chain of Custody Relinquished?	[X] Yes	[ ] No		2.
Sampler Name and/or Signature on COC?	[X] Yes	[ ] No	[ ] N/A	3.
Samples Arrived within Hold Time?	[X] Yes	[ ] No		4.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No		5. [ ] Fecal Coliform [ ] HPC [ ] Total Coliform/E coli [ ] BOD/cBOD [ ] Hex Chrome [ ] Turbidity [ ] Nitrate [ ] Nitrite [ ] Orthophos [ ] Other
Rush Turn Around Time Requested?	[ ] Yes	[X] No		6.
Sufficient Volume?	[X] Yes	[ ] No		7.
Correct Containers Used?	[X] Yes	[ ] No		8.
-Pace Containers Used?	[X] Yes	[ ] No		
Containers Intact?	[X] Yes	[ ] No		9.
Field Filtered Volume Received for Dissolved Tests?	[ ] Yes	[ ] No	[X] N/A	10. Is sediment visible in the dissolved container? [ ] Yes [ ] No
Is sufficient information available to reconcile the samples to the COC?	[X] Yes	[ ] No		11. If no, write ID/ Date/Time on Container Below: See Exception [ ]
Matrix: [ ] Water [X] Soil [ ] Oil [ ] Other				
All containers needing acid/base preservation have been checked?	[ ] Yes	[ ] No	[X] N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	[ ] Yes	[ ] No	[X] N/A	[ ] NaOH [ ] HNO_3 [ ] H_2SO_4 [ ] Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	[ ] Yes	[ ] No	[X] N/A	Positive for Res. Chlorine? [ ] Yes [ ] No pH Paper Lot# See Exception [ ]
				Res. Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	[ ] Yes	[ ] No	[X] N/A	13. See Exception [ ]
Trip Blank Present?	[X] Yes	[ ] No	[ ] N/A	14.
Trip Blank Custody Seals Present?	[X] Yes	[ ] No	[ ] N/A	Pace Trip Blank Lot # (if purchased): 123118-3

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ Jenji Gross **Date:** 06/03/19

Note: Whenever there is a discrepancy affecting North C samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: _____

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

June 25, 2019

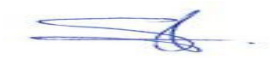
Matthew Davis
GHD Services Inc.
1117 Tacoma Avenue South
Tacoma, WA 98402

RE: Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Dear Matthew Davis:
Enclosed are the analytical results for sample(s) received by the laboratory on June 08, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Oyeyemi Odujole for
Jennifer Gross
jennifer.gross@pacelabs.com
(206)957-2426
Project Manager

Enclosures

cc: Jeffrey Cloud, GHD Services Inc.
Eric Maise, GHD Services Inc.
Brian Pauley, GHD Services, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

SAMPLE SUMMARY

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10478381001	**SO-11145925-060319-BP-MW-10-35**	Solid	06/03/19 13:30	06/08/19 09:20
10478381002	**SO-11145925-060319-BP-MW-10-40**	Solid	06/03/19 13:45	06/08/19 09:20
10478381003	**SO-11145925-060419-BP-MW-7-50**	Solid	06/04/19 11:15	06/08/19 09:20
10478381004	**SO-11145925-060419-BP-MW-7-55**	Solid	06/04/19 11:20	06/08/19 09:20
10478381005	**SO-11145925-060519-BP-MW-8-50**	Solid	06/05/19 10:30	06/08/19 09:20
10478381006	**SO-11145925-060519-BP-MW-8-55**	Solid	06/05/19 10:45	06/08/19 09:20
10478381007	**SO-11145925-060619-BP-MW-9-40**	Solid	06/06/19 09:45	06/08/19 09:20
10478381008	**SO-11145925-060619-BP-MW-9-45**	Solid	06/06/19 10:00	06/08/19 09:20
10478381009	**SO-11145925-060619-BP-B-17-10**	Solid	06/06/19 13:45	06/08/19 09:20
10478381010	**Trip Blank**	Solid	06/03/19 00:00	06/08/19 09:20

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

SAMPLE ANALYTE COUNT

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10478381001	SO-11145925-060319-BP-MW-10-35	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381002	SO-11145925-060319-BP-MW-10-40	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381003	SO-11145925-060419-BP-MW-7-50	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381004	SO-11145925-060419-BP-MW-7-55	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381005	SO-11145925-060519-BP-MW-8-50	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381006	SO-11145925-060519-BP-MW-8-55	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381007	SO-11145925-060619-BP-MW-9-40	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381008	SO-11145925-060619-BP-MW-9-45	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

SAMPLE ANALYTE COUNT

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381009	**SO-11145925-060619-BP-B-17-10**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	AJR	2	PASI-M
		EPA 6010D	IP	1	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270D by SIM	SNG	21	PASI-M
		EPA 8260B	GDM	42	PASI-M
10478381010	**Trip Blank**	NWTPH-Gx	AJR	2	PASI-M
		EPA 8260B	GDM	9	PASI-M

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS
Client: GHD Services Inc
Date: June 25, 2019

General Information:
9 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Method: **NWTPH-Gx**
Description: NWTPH-Gx GCV
Client: GHD Services Inc
Date: June 25, 2019

General Information:
10 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with NWTPH-Gx with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Method: **EPA 6010D**
Description: 6010D MET ICP
Client: GHD Services Inc
Date: June 25, 2019

General Information:
9 samples were analyzed for EPA 6010D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 612546

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10478320001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3309773)
  - Lead
- MSD (Lab ID: 3309774)
  - Lead

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: GHD Services Inc
Date: June 25, 2019

General Information:
1 sample was analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Batch Comments:

Multiple diluted samples would not keep footnotes saved. Samples with high final volumes and samples diluted at 10x and above should read "Surrogates were diluted out due to sample dilution."
- QC Batch: 614213

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Method: **EPA 8260B**
Description: 8260B MSV 5035 Low Level
Client: GHD Services Inc
Date: June 25, 2019

General Information:
10 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035 Low with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 612144

R1: RPD value was outside control limits.

- LCSD (Lab ID: 3307601)
  - 1,1,1-Trichloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,1,2-Trichloroethane
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichlorobenzene
  - 1,2-Dichloroethane
  - 1,2-Dichloropropane
  - 1,3-Dichlorobenzene
  - 1,4-Dichlorobenzene
  - Benzene
  - Bromodichloromethane

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PROJECT NARRATIVE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Method: **EPA 8260B**
Description: 8260B MSV 5035 Low Level
Client: GHD Services Inc
Date: June 25, 2019

QC Batch: 612144

R1: RPD value was outside control limits.

- Carbon tetrachloride
- Chlorobenzene
- Chloroethane
- Chloroform
- Chloromethane
- Dibromochloromethane
- Dichlorodifluoromethane
- Ethylbenzene
- Hexachloro-1,3-butadiene
- Methyl-tert-butyl ether
- Naphthalene
- Tetrachloroethene
- Toluene
- Trichloroethene
- Trichlorofluoromethane
- Vinyl chloride
- cis-1,2-Dichloroethene
- cis-1,3-Dichloropropene
- m&p-Xylene
- o-Xylene
- trans-1,2-Dichloroethene
- trans-1,3-Dichloropropene

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 612144

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060319-BP-MW-10-35 **Lab ID: 10478381001** Collected: 06/03/19 13:30 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	16.5	1	06/11/19 10:53	06/12/19 18:10	68334-30-5	
Motor Oil Range	**23.2**	mg/kg	11.0	1	06/11/19 10:53	06/12/19 18:10		
Surrogates								
n-Triacontane (S)	77	%.	50-150	1	06/11/19 10:53	06/12/19 18:10	638-68-6	
o-Terphenyl (S)	82	%.	50-150	1	06/11/19 10:53	06/12/19 18:10	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	7.1	1	06/17/19 08:58	06/17/19 11:50		G-
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	50-150	1	06/17/19 08:58	06/17/19 11:50	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**6.3**	mg/kg	0.54	1	06/14/19 15:15	06/17/19 10:58	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**9.4**	%	0.10	1		06/13/19 13:54		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	106-46-7	
Benzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	75-27-4	
Bromoform	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 18:07	75-25-2	
Bromomethane	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 18:07	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	56-23-5	
Chlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	108-90-7	
Chloroethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:07	75-00-3	
Chloroform	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	67-66-3	
Chloromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:07	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:07	75-71-8	
Ethylbenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:07	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	1634-04-4	
Methylene Chloride	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 18:07	75-09-2	
Naphthalene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:07	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060319-BP-MW-10-35 **Lab ID: 10478381001** Collected: 06/03/19 13:30 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	127-18-4	
Toluene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	108-88-3	
Trichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:07	75-69-4	
Vinyl chloride	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	75-01-4	
Xylene (Total)	ND	mg/kg	0.016	1	06/11/19 15:58	06/11/19 18:07	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	10061-01-5	
m&p-Xylene	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 18:07	179601-23-1	
o-Xylene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 18:07	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%.	75-125	1	06/11/19 15:58	06/11/19 18:07	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 18:07	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1	06/11/19 15:58	06/11/19 18:07	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060319-BP-MW-10-40 **Lab ID: 10478381002** Collected: 06/03/19 13:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	20.1	1	06/11/19 10:53	06/12/19 18:44	68334-30-5	
Motor Oil Range	ND	mg/kg	13.4	1	06/11/19 10:53	06/12/19 18:44		
Surrogates								
n-Triacontane (S)	79	%.	50-150	1	06/11/19 10:53	06/12/19 18:44	638-68-6	
o-Terphenyl (S)	76	%.	50-150	1	06/11/19 10:53	06/12/19 18:44	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	7.2	1	06/17/19 08:58	06/17/19 12:57		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	50-150	1	06/17/19 08:58	06/17/19 12:57	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**8.1**	mg/kg	0.62	1	06/14/19 15:15	06/17/19 11:01	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**25.6**	%	0.10	1		06/13/19 13:55		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	106-46-7	
Benzene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	75-27-4	
Bromoform	ND	mg/kg	0.028	1	06/11/19 15:58	06/11/19 18:26	75-25-2	
Bromomethane	ND	mg/kg	0.028	1	06/11/19 15:58	06/11/19 18:26	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	56-23-5	
Chlorobenzene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	108-90-7	
Chloroethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:26	75-00-3	
Chloroform	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	67-66-3	
Chloromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:26	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:26	75-71-8	
Ethylbenzene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:26	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	1634-04-4	
Methylene Chloride	ND	mg/kg	0.028	1	06/11/19 15:58	06/11/19 18:26	75-09-2	
Naphthalene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:26	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060319-BP-MW-10-40 **Lab ID: 10478381002** Collected: 06/03/19 13:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	127-18-4	
Toluene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	108-88-3	
Trichloroethene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:26	75-69-4	
Vinyl chloride	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	75-01-4	
Xylene (Total)	ND	mg/kg	0.017	1	06/11/19 15:58	06/11/19 18:26	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	10061-01-5	
m&p-Xylene	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 18:26	179601-23-1	
o-Xylene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0057	1	06/11/19 15:58	06/11/19 18:26	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1	06/11/19 15:58	06/11/19 18:26	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 18:26	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1	06/11/19 15:58	06/11/19 18:26	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060419-BP-MW-7-50 **Lab ID: 10478381003** Collected: 06/04/19 11:15 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	17.1	1	06/11/19 10:53	06/12/19 18:55	68334-30-5	
Motor Oil Range	**13.2**	mg/kg	11.4	1	06/11/19 10:53	06/12/19 18:55		
Surrogates								
n-Triacontane (S)	86	%.	50-150	1	06/11/19 10:53	06/12/19 18:55	638-68-6	
o-Terphenyl (S)	85	%.	50-150	1	06/11/19 10:53	06/12/19 18:55	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	7.3	1	06/17/19 08:58	06/17/19 13:14		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	50-150	1	06/17/19 08:58	06/17/19 13:14	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**5.3**	mg/kg	0.56	1	06/14/19 15:15	06/17/19 11:04	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**12.8**	%	0.10	1		06/13/19 13:55		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	106-46-7	
Benzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	75-27-4	
Bromoform	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 18:45	75-25-2	
Bromomethane	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 18:45	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	56-23-5	
Chlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 18:45	75-00-3	
Chloroform	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 18:45	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 18:45	75-71-8	
Ethylbenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 18:45	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	1634-04-4	
Methylene Chloride	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 18:45	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 18:45	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060419-BP-MW-7-50 **Lab ID: 10478381003** Collected: 06/04/19 11:15 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	127-18-4	
Toluene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	108-88-3	
Trichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 18:45	75-69-4	
Vinyl chloride	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	75-01-4	
Xylene (Total)	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 18:45	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0095	1	06/11/19 15:58	06/11/19 18:45	179601-23-1	
o-Xylene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 18:45	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1	06/11/19 15:58	06/11/19 18:45	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 18:45	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1	06/11/19 15:58	06/11/19 18:45	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060419-BP-MW-7-55 **Lab ID: 10478381004** Collected: 06/04/19 11:20 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	20.5	1	06/11/19 10:53	06/12/19 19:06	68334-30-5	
Motor Oil Range	ND	mg/kg	13.6	1	06/11/19 10:53	06/12/19 19:06		
Surrogates								
n-Triacontane (S)	59	%.	50-150	1	06/11/19 10:53	06/12/19 19:06	638-68-6	
o-Terphenyl (S)	76	%.	50-150	1	06/11/19 10:53	06/12/19 19:06	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	7.4	1	06/17/19 08:58	06/17/19 11:33		
Surrogates								
a,a,a-Trifluorotoluene (S)	93	%.	50-150	1	06/17/19 08:58	06/17/19 11:33	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**4.6**	mg/kg	0.67	1	06/14/19 15:15	06/17/19 11:07	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**26.9**	%	0.10	1		06/13/19 13:55		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	106-46-7	
Benzene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	75-27-4	
Bromoform	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 19:05	75-25-2	
Bromomethane	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 19:05	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	56-23-5	
Chlorobenzene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 19:05	75-00-3	
Chloroform	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 19:05	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 19:05	75-71-8	
Ethylbenzene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 19:05	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	1634-04-4	
Methylene Chloride	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 19:05	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 19:05	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060419-BP-MW-7-55 **Lab ID: 10478381004** Collected: 06/04/19 11:20 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	127-18-4	
Toluene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	108-88-3	
Trichloroethene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 19:05	75-69-4	
Vinyl chloride	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	75-01-4	
Xylene (Total)	ND	mg/kg	0.015	1	06/11/19 15:58	06/11/19 19:05	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0098	1	06/11/19 15:58	06/11/19 19:05	179601-23-1	
o-Xylene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0049	1	06/11/19 15:58	06/11/19 19:05	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1	06/11/19 15:58	06/11/19 19:05	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 19:05	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1	06/11/19 15:58	06/11/19 19:05	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060519-BP-MW-8-50 **Lab ID: 10478381005** Collected: 06/05/19 10:30 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	16.3	1	06/13/19 17:39	06/14/19 14:18	68334-30-5	
Motor Oil Range	ND	mg/kg	10.9	1	06/13/19 17:39	06/14/19 14:18		
Surrogates								
n-Triacontane (S)	100	%.	50-150	1	06/13/19 17:39	06/14/19 14:18	638-68-6	
o-Terphenyl (S)	96	%.	50-150	1	06/13/19 17:39	06/14/19 14:18	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	7.6	1	06/17/19 08:58	06/17/19 13:31		G-
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	50-150	1	06/17/19 08:58	06/17/19 13:31	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**5.3**	mg/kg	0.52	1	06/14/19 15:15	06/17/19 11:10	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**8.9**	%	0.10	1		06/13/19 13:55		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	106-46-7	
Benzene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	75-27-4	
Bromoform	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 19:24	75-25-2	
Bromomethane	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 19:24	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	56-23-5	
Chlorobenzene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	108-90-7	
Chloroethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:24	75-00-3	
Chloroform	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	67-66-3	
Chloromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:24	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:24	75-71-8	
Ethylbenzene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:24	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	1634-04-4	
Methylene Chloride	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 19:24	75-09-2	
Naphthalene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:24	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060519-BP-MW-8-50 **Lab ID: 10478381005** Collected: 06/05/19 10:30 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	127-18-4	
Toluene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	108-88-3	
Trichloroethene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:24	75-69-4	
Vinyl chloride	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	75-01-4	
Xylene (Total)	ND	mg/kg	0.016	1	06/11/19 15:58	06/11/19 19:24	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	10061-01-5	
m&p-Xylene	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 19:24	179601-23-1	
o-Xylene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0055	1	06/11/19 15:58	06/11/19 19:24	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%.	75-125	1	06/11/19 15:58	06/11/19 19:24	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1	06/11/19 15:58	06/11/19 19:24	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 19:24	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060519-BP-MW-8-55 **Lab ID: 10478381006** Collected: 06/05/19 10:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	21.1	1	06/11/19 10:53	06/12/19 19:29	68334-30-5	
Motor Oil Range	ND	mg/kg	14.0	1	06/11/19 10:53	06/12/19 19:29		
Surrogates								
n-Triacontane (S)	89	%.	50-150	1	06/11/19 10:53	06/12/19 19:29	638-68-6	
o-Terphenyl (S)	87	%.	50-150	1	06/11/19 10:53	06/12/19 19:29	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	7.7	1	06/17/19 08:58	06/17/19 12:23		
Surrogates								
a,a,a-Trifluorotoluene (S)	109	%.	50-150	1	06/17/19 08:58	06/17/19 12:23	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**4.4**	mg/kg	0.69	1	06/14/19 15:15	06/17/19 11:20	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**29.3**	%	0.10	1		06/13/19 13:55		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	106-46-7	
Benzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	75-27-4	
Bromoform	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 19:43	75-25-2	
Bromomethane	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 19:43	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	56-23-5	
Chlorobenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	108-90-7	
Chloroethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:43	75-00-3	
Chloroform	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	67-66-3	
Chloromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:43	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:43	75-71-8	
Ethylbenzene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:43	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	1634-04-4	
Methylene Chloride	ND	mg/kg	0.027	1	06/11/19 15:58	06/11/19 19:43	75-09-2	
Naphthalene	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:43	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060519-BP-MW-8-55 **Lab ID: 10478381006** Collected: 06/05/19 10:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	127-18-4	
Toluene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	108-88-3	
Trichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 19:43	75-69-4	
Vinyl chloride	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	75-01-4	
Xylene (Total)	ND	mg/kg	0.016	1	06/11/19 15:58	06/11/19 19:43	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	10061-01-5	
m&p-Xylene	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 19:43	179601-23-1	
o-Xylene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0054	1	06/11/19 15:58	06/11/19 19:43	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%.	75-125	1	06/11/19 15:58	06/11/19 19:43	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 19:43	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1	06/11/19 15:58	06/11/19 19:43	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060619-BP-MW-9-40 **Lab ID: 10478381007** Collected: 06/06/19 09:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	18.9	1	06/11/19 10:53	06/12/19 19:40	68334-30-5	
Motor Oil Range	ND	mg/kg	12.6	1	06/11/19 10:53	06/12/19 19:40		
Surrogates								
n-Triacontane (S)	75	%.	50-150	1	06/11/19 10:53	06/12/19 19:40	638-68-6	
o-Terphenyl (S)	77	%.	50-150	1	06/11/19 10:53	06/12/19 19:40	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	6.3	1	06/17/19 08:58	06/17/19 13:48		
Surrogates								
a,a,a-Trifluorotoluene (S)	95	%.	50-150	1	06/17/19 08:58	06/17/19 13:48	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**6.4**	mg/kg	0.60	1	06/14/19 15:15	06/17/19 11:23	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**20.6**	%	0.10	1		06/13/19 13:55		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	106-46-7	
Benzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	75-27-4	
Bromoform	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 20:02	75-25-2	
Bromomethane	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 20:02	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	56-23-5	
Chlorobenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:02	75-00-3	
Chloroform	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:02	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:02	75-71-8	
Ethylbenzene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:02	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	1634-04-4	
Methylene Chloride	ND	mg/kg	0.024	1	06/11/19 15:58	06/11/19 20:02	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:02	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060619-BP-MW-9-40 **Lab ID: 10478381007** Collected: 06/06/19 09:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	127-18-4	
Toluene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	108-88-3	
Trichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:02	75-69-4	
Vinyl chloride	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	75-01-4	
Xylene (Total)	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 20:02	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0096	1	06/11/19 15:58	06/11/19 20:02	179601-23-1	
o-Xylene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0048	1	06/11/19 15:58	06/11/19 20:02	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%.	75-125	1	06/11/19 15:58	06/11/19 20:02	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 20:02	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1	06/11/19 15:58	06/11/19 20:02	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060619-BP-MW-9-45 **Lab ID: 10478381008** Collected: 06/06/19 10:00 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	ND	mg/kg	18.7	1	06/11/19 10:53	06/12/19 19:51	68334-30-5	
Motor Oil Range	ND	mg/kg	12.5	1	06/11/19 10:53	06/12/19 19:51		
Surrogates								
n-Triacontane (S)	73	%.	50-150	1	06/11/19 10:53	06/12/19 19:51	638-68-6	
o-Terphenyl (S)	80	%.	50-150	1	06/11/19 10:53	06/12/19 19:51	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	6.7	1	06/17/19 08:58	06/17/19 14:05		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	50-150	1	06/17/19 08:58	06/17/19 14:05	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**3.6**	mg/kg	0.63	1	06/14/19 15:15	06/17/19 11:26	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**20.8**	%	0.10	1		06/13/19 13:56		
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	79-00-5	
1,1-Dichloroethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	106-46-7	
Benzene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	75-27-4	
Bromoform	ND	mg/kg	0.021	1	06/11/19 15:58	06/11/19 20:21	75-25-2	
Bromomethane	ND	mg/kg	0.021	1	06/11/19 15:58	06/11/19 20:21	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	56-23-5	
Chlorobenzene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	108-90-7	
Chloroethane	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 20:21	75-00-3	
Chloroform	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	67-66-3	
Chloromethane	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 20:21	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 20:21	75-71-8	
Ethylbenzene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 20:21	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	1634-04-4	
Methylene Chloride	ND	mg/kg	0.021	1	06/11/19 15:58	06/11/19 20:21	75-09-2	
Naphthalene	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 20:21	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060619-BP-MW-9-45 **Lab ID: 10478381008** Collected: 06/06/19 10:00 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
Tetrachloroethene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	127-18-4	
Toluene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	108-88-3	
Trichloroethene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.011	1	06/11/19 15:58	06/11/19 20:21	75-69-4	
Vinyl chloride	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	75-01-4	
Xylene (Total)	ND	mg/kg	0.013	1	06/11/19 15:58	06/11/19 20:21	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0085	1	06/11/19 15:58	06/11/19 20:21	179601-23-1	
o-Xylene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0043	1	06/11/19 15:58	06/11/19 20:21	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	75-125	1	06/11/19 15:58	06/11/19 20:21	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 20:21	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1	06/11/19 15:58	06/11/19 20:21	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060619-BP-B-17-10 **Lab ID: 10478381009** Collected: 06/06/19 13:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS	Analytical Method: NWTPH-Dx Preparation Method: EPA 3550							
Diesel Fuel Range	**26.2**	mg/kg	15.9	1	06/11/19 10:53	06/12/19 20:03	68334-30-5	
Motor Oil Range	**23.0**	mg/kg	10.6	1	06/11/19 10:53	06/12/19 20:03		
Surrogates								
n-Triacontane (S)	73	%.	50-150	1	06/11/19 10:53	06/12/19 20:03	638-68-6	
o-Terphenyl (S)	79	%.	50-150	1	06/11/19 10:53	06/12/19 20:03	84-15-1	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx							
TPH as Gas	ND	mg/kg	9.4	1	06/17/19 08:58	06/17/19 14:22		
Surrogates								
a,a,a-Trifluorotoluene (S)	98	%.	50-150	1	06/17/19 08:58	06/17/19 14:22	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050							
Lead	**2.8**	mg/kg	2.4	5	06/14/19 15:15	06/17/19 12:12	7439-92-1	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974							
Percent Moisture	**6.8**	%	0.10	1		06/13/19 13:56		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550							
1-Methylnaphthalene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	90-12-0	
2-Chloronaphthalene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	91-58-7	
2-Methylnaphthalene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	91-57-6	
Acenaphthene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	83-32-9	
Acenaphthylene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	208-96-8	
Anthracene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	207-08-9	
Chrysene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	53-70-3	
Fluoranthene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	206-44-0	
Fluorene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	193-39-5	
Naphthalene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	91-20-3	
Phenanthrene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	85-01-8	
Pyrene	ND	mg/kg	0.011	1	06/18/19 13:03	06/19/19 18:22	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	69	%.	30-125	1	06/18/19 13:03	06/19/19 18:22	321-60-8	
p-Terphenyl-d14 (S)	87	%.	30-125	1	06/18/19 13:03	06/19/19 18:22	1718-51-0	
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1,1-Trichloroethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	71-55-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	79-34-5	
1,1,2-Trichloroethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	79-00-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: SO-11145925-060619-BP-B-17-10 **Lab ID: 10478381009** Collected: 06/06/19 13:45 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035 Low							
1,1-Dichloroethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	75-34-3	
1,1-Dichloroethene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	75-35-4	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	106-93-4	
1,2-Dichlorobenzene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	95-50-1	
1,2-Dichloroethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	107-06-2	
1,2-Dichloropropane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	78-87-5	
1,3-Dichlorobenzene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	106-46-7	
Benzene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	71-43-2	
Bromodichloromethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	75-27-4	
Bromoform	ND	mg/kg	0.023	1	06/11/19 15:58	06/11/19 20:41	75-25-2	
Bromomethane	ND	mg/kg	0.023	1	06/11/19 15:58	06/11/19 20:41	74-83-9	
Carbon tetrachloride	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	56-23-5	
Chlorobenzene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	108-90-7	
Chloroethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:41	75-00-3	
Chloroform	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	67-66-3	
Chloromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:41	74-87-3	
Dibromochloromethane	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	124-48-1	
Dichlorodifluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:41	75-71-8	
Ethylbenzene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:41	87-68-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	1634-04-4	
Methylene Chloride	ND	mg/kg	0.023	1	06/11/19 15:58	06/11/19 20:41	75-09-2	
Naphthalene	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:41	91-20-3	
Tetrachloroethene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	127-18-4	
Toluene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	108-88-3	
Trichloroethene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 20:41	75-69-4	
Vinyl chloride	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	75-01-4	
Xylene (Total)	ND	mg/kg	0.014	1	06/11/19 15:58	06/11/19 20:41	1330-20-7	
cis-1,2-Dichloroethene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	156-59-2	
cis-1,3-Dichloropropene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	10061-01-5	
m&p-Xylene	ND	mg/kg	0.0093	1	06/11/19 15:58	06/11/19 20:41	179601-23-1	
o-Xylene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	95-47-6	
trans-1,2-Dichloroethene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	156-60-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0046	1	06/11/19 15:58	06/11/19 20:41	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%.	75-125	1	06/11/19 15:58	06/11/19 20:41	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1	06/11/19 15:58	06/11/19 20:41	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1	06/11/19 15:58	06/11/19 20:41	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Sample: Trip Blank **Lab ID: 10478381010** Collected: 06/03/19 00:00 Received: 06/08/19 09:20 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx	Preparation Method: NWTPH-Gx						
TPH as Gas	ND	mg/kg	5.0	1	06/17/19 08:58	06/17/19 15:12		
Surrogates								
a,a,a-Trifluorotoluene (S)	91	%.	50-150	1	06/17/19 08:58	06/17/19 15:12	98-08-8	
8260B MSV 5035 Low Level	Analytical Method: EPA 8260B	Preparation Method: EPA 5035 Low						
Benzene	ND	mg/kg	0.0040	1	06/11/19 15:58	06/11/19 17:48	71-43-2	
Ethylbenzene	ND	mg/kg	0.0040	1	06/11/19 15:58	06/11/19 17:48	100-41-4	
Toluene	ND	mg/kg	0.0040	1	06/11/19 15:58	06/11/19 17:48	108-88-3	
Xylene (Total)	ND	mg/kg	0.012	1	06/11/19 15:58	06/11/19 17:48	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0080	1	06/11/19 15:58	06/11/19 17:48	179601-23-1	
o-Xylene	ND	mg/kg	0.0040	1	06/11/19 15:58	06/11/19 17:48	95-47-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%.	75-125	1	06/11/19 15:58	06/11/19 17:48	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1	06/11/19 15:58	06/11/19 17:48	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1	06/11/19 15:58	06/11/19 17:48	460-00-4	

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QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 613280 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Solid GCV
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009, 10478381010

METHOD BLANK: 3314122 Matrix: Solid
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009, 10478381010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	mg/kg	ND	5.0	06/17/19 10:08	
a,a,a-Trifluorotoluene (S)	%.	96	50-150	06/17/19 10:08	

METHOD BLANK: 3314123 Matrix: Solid
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009, 10478381010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	mg/kg	ND	5.0	06/17/19 10:25	
a,a,a-Trifluorotoluene (S)	%.	102	50-150	06/17/19 10:25	

LABORATORY CONTROL SAMPLE & LCSD: 3314124 3314125

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	mg/kg	50	46.1	47.1	92	94	69-125	2	20	
a,a,a-Trifluorotoluene (S)	%.				105	97	50-150			

MATRIX SPIKE SAMPLE: 3314227

Parameter	Units	10478381004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	mg/kg	ND	65.7	57.0	87	48-148	
a,a,a-Trifluorotoluene (S)	%.				98	50-150	

SAMPLE DUPLICATE: 3314225

Parameter	Units	10478381001 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	mg/kg	ND	ND		30	G-
a,a,a-Trifluorotoluene (S)	%.	97	104			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

SAMPLE DUPLICATE: 3314226

Parameter	Units	10478381006 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	mg/kg	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	109	94			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 612546 Analysis Method: EPA 6010D
QC Batch Method: EPA 3050 Analysis Description: 6010D Solids
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009

METHOD BLANK: 3309771 Matrix: Solid
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	0.47	06/17/19 10:08	

LABORATORY CONTROL SAMPLE: 3309772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	47.6	43.4	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3309773 3309774

Parameter	Units	10478320001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/kg	456	52.6	53	322	332	-255	-235	75-125	3	20	P6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 612637 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight / %M by ASTM D2974
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009

SAMPLE DUPLICATE: 3310144

Parameter	Units	10478522010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.2	21.1	5	30	

SAMPLE DUPLICATE: 3310645

Parameter	Units	10478381008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.8	20.1	3	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 612144 Analysis Method: EPA 8260B
QC Batch Method: EPA 5035 Low Analysis Description: 8260B MSV 5035 Low Level
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009, 10478381010

METHOD BLANK: 3307599 Matrix: Solid
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009, 10478381010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	mg/kg	ND	0.0040	06/11/19 17:09	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0040	06/11/19 17:09	
1,1,2-Trichloroethane	mg/kg	ND	0.0040	06/11/19 17:09	
1,1-Dichloroethane	mg/kg	ND	0.0040	06/11/19 17:09	
1,1-Dichloroethene	mg/kg	ND	0.0040	06/11/19 17:09	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0040	06/11/19 17:09	
1,2-Dichlorobenzene	mg/kg	ND	0.0040	06/11/19 17:09	
1,2-Dichloroethane	mg/kg	ND	0.0040	06/11/19 17:09	
1,2-Dichloropropane	mg/kg	ND	0.0040	06/11/19 17:09	
1,3-Dichlorobenzene	mg/kg	ND	0.0040	06/11/19 17:09	
1,4-Dichlorobenzene	mg/kg	ND	0.0040	06/11/19 17:09	
Benzene	mg/kg	ND	0.0040	06/11/19 17:09	
Bromodichloromethane	mg/kg	ND	0.0040	06/11/19 17:09	
Bromoform	mg/kg	ND	0.020	06/11/19 17:09	
Bromomethane	mg/kg	ND	0.020	06/11/19 17:09	
Carbon tetrachloride	mg/kg	ND	0.0040	06/11/19 17:09	
Chlorobenzene	mg/kg	ND	0.0040	06/11/19 17:09	
Chloroethane	mg/kg	ND	0.010	06/11/19 17:09	
Chloroform	mg/kg	ND	0.0040	06/11/19 17:09	
Chloromethane	mg/kg	ND	0.010	06/11/19 17:09	
cis-1,2-Dichloroethene	mg/kg	ND	0.0040	06/11/19 17:09	
cis-1,3-Dichloropropene	mg/kg	ND	0.0040	06/11/19 17:09	
Dibromochloromethane	mg/kg	ND	0.0040	06/11/19 17:09	
Dichlorodifluoromethane	mg/kg	ND	0.010	06/11/19 17:09	
Ethylbenzene	mg/kg	ND	0.0040	06/11/19 17:09	
Hexachloro-1,3-butadiene	mg/kg	ND	0.010	06/11/19 17:09	
m&p-Xylene	mg/kg	ND	0.0080	06/11/19 17:09	
Methyl-tert-butyl ether	mg/kg	ND	0.0040	06/11/19 17:09	
Methylene Chloride	mg/kg	ND	0.020	06/11/19 17:09	
Naphthalene	mg/kg	ND	0.010	06/11/19 17:09	
o-Xylene	mg/kg	ND	0.0040	06/11/19 17:09	
Tetrachloroethene	mg/kg	ND	0.0040	06/11/19 17:09	
Toluene	mg/kg	ND	0.0040	06/11/19 17:09	
trans-1,2-Dichloroethene	mg/kg	ND	0.0040	06/11/19 17:09	
trans-1,3-Dichloropropene	mg/kg	ND	0.0040	06/11/19 17:09	
Trichloroethene	mg/kg	ND	0.0040	06/11/19 17:09	
Trichlorofluoromethane	mg/kg	ND	0.010	06/11/19 17:09	
Vinyl chloride	mg/kg	ND	0.0040	06/11/19 17:09	
Xylene (Total)	mg/kg	ND	0.012	06/11/19 17:09	
1,2-Dichloroethane-d4 (S)	%.	103	75-125	06/11/19 17:09	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

METHOD BLANK: 3307599 Matrix: Solid

Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381005, 10478381006, 10478381007, 10478381008, 10478381009, 10478381010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%.	100	75-125	06/11/19 17:09	
Toluene-d8 (S)	%.	100	75-125	06/11/19 17:09	

LABORATORY CONTROL SAMPLE & LCSD: 3307600 3307601

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.02	0.021	0.016	103	80	72-128	26	20	R1
1,1,2,2-Tetrachloroethane	mg/kg	0.02	0.022	0.018	112	89	74-126	23	20	R1
1,1,2-Trichloroethane	mg/kg	0.02	0.025	0.019	124	96	75-128	25	20	R1
1,1-Dichloroethane	mg/kg	0.02	0.023	0.017	116	87	71-131	29	20	R1
1,1-Dichloroethene	mg/kg	0.02	0.021	0.016	104	79	72-126	27	20	R1
1,2-Dibromoethane (EDB)	mg/kg	0.02	0.024	0.019	122	96	75-126	24	20	R1
1,2-Dichlorobenzene	mg/kg	0.02	0.022	0.017	110	83	73-125	28	20	R1
1,2-Dichloroethane	mg/kg	0.02	0.023	0.018	115	90	72-125	24	20	R1
1,2-Dichloropropane	mg/kg	0.02	0.023	0.018	116	90	75-127	25	20	R1
1,3-Dichlorobenzene	mg/kg	0.02	0.021	0.016	106	81	73-125	27	20	R1
1,4-Dichlorobenzene	mg/kg	0.02	0.022	0.016	108	81	71-126	29	20	R1
Benzene	mg/kg	0.02	0.023	0.018	115	88	71-129	26	20	R1
Bromodichloromethane	mg/kg	0.02	0.023	0.018	117	91	75-125	26	20	R1
Bromoform	mg/kg	0.02	0.024	.018J	119	92	71-125		20	
Bromomethane	mg/kg	0.02	0.027	ND	137	98	75-145		20	
Carbon tetrachloride	mg/kg	0.02	0.020	0.016	100	78	69-131	25	20	R1
Chlorobenzene	mg/kg	0.02	0.022	0.016	109	82	72-126	28	20	R1
Chloroethane	mg/kg	0.02	0.025	0.019	125	95	73-140	27	20	R1
Chloroform	mg/kg	0.02	0.023	0.017	113	86	68-131	27	20	R1
Chloromethane	mg/kg	0.02	0.024	0.018	120	92	66-136	27	20	R1
cis-1,2-Dichloroethene	mg/kg	0.02	0.023	0.018	117	88	73-131	28	20	R1
cis-1,3-Dichloropropene	mg/kg	0.02	0.023	0.017	113	85	74-126	28	20	R1
Dibromochloromethane	mg/kg	0.02	0.023	0.018	117	89	74-125	27	20	R1
Dichlorodifluoromethane	mg/kg	0.02	0.019	0.015	93	73	53-145	25	20	R1
Ethylbenzene	mg/kg	0.02	0.022	0.017	110	83	72-125	28	20	R1
Hexachloro-1,3-butadiene	mg/kg	0.02	0.020	0.015	102	76	69-129	30	20	R1
m&p-Xylene	mg/kg	0.04	0.045	0.033	112	84	71-125	29	20	R1
Methyl-tert-butyl ether	mg/kg	0.02	0.024	0.019	120	96	72-129	23	20	R1
Methylene Chloride	mg/kg	0.02	0.022	.017J	109	84	56-150		20	
Naphthalene	mg/kg	0.02	0.022	0.018	111	88	71-125	23	20	R1
o-Xylene	mg/kg	0.02	0.023	0.017	113	86	74-125	27	20	R1
Tetrachloroethene	mg/kg	0.02	0.020	0.015	101	75	70-130	30	20	R1
Toluene	mg/kg	0.02	0.022	0.016	108	80	70-125	30	20	R1
trans-1,2-Dichloroethene	mg/kg	0.02	0.022	0.017	111	85	69-132	27	20	R1
trans-1,3-Dichloropropene	mg/kg	0.02	0.023	0.018	116	91	75-125	25	20	R1
Trichloroethene	mg/kg	0.02	0.023	0.018	116	88	75-125	27	20	R1
Trichlorofluoromethane	mg/kg	0.02	0.022	0.017	110	83	65-138	27	20	R1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

LABORATORY CONTROL SAMPLE & LCSD: 3307600 3307601

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Vinyl chloride	mg/kg	0.02	0.024	0.018	118	92	68-129	24	20	R1
Xylene (Total)	mg/kg	0.06	0.067	0.051	112	84	72-125	29	20	RS
1,2-Dichloroethane-d4 (S)	%.				99	103	75-125			
4-Bromofluorobenzene (S)	%.				101	101	75-125			
Toluene-d8 (S)	%.				101	101	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 613662
QC Batch Method: EPA 3550
Analysis Method: EPA 8270D by SIM
Analysis Description: 8270D Solid PAH by SIM MSSV
Associated Lab Samples: 10478381009

METHOD BLANK: 3315647 Matrix: Solid
Associated Lab Samples: 10478381009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	ND	0.010	06/19/19 17:37	
2-Chloronaphthalene	mg/kg	ND	0.010	06/19/19 17:37	
2-Methylnaphthalene	mg/kg	ND	0.010	06/19/19 17:37	
Acenaphthene	mg/kg	ND	0.010	06/19/19 17:37	
Acenaphthylene	mg/kg	ND	0.010	06/19/19 17:37	
Anthracene	mg/kg	ND	0.010	06/19/19 17:37	
Benzo(a)anthracene	mg/kg	ND	0.010	06/19/19 17:37	
Benzo(a)pyrene	mg/kg	ND	0.010	06/19/19 17:37	
Benzo(b)fluoranthene	mg/kg	ND	0.010	06/19/19 17:37	
Benzo(g,h,i)perylene	mg/kg	ND	0.010	06/19/19 17:37	
Benzo(k)fluoranthene	mg/kg	ND	0.010	06/19/19 17:37	
Chrysene	mg/kg	ND	0.010	06/19/19 17:37	
Dibenz(a,h)anthracene	mg/kg	ND	0.010	06/19/19 17:37	
Fluoranthene	mg/kg	ND	0.010	06/19/19 17:37	
Fluorene	mg/kg	ND	0.010	06/19/19 17:37	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.010	06/19/19 17:37	
Naphthalene	mg/kg	ND	0.010	06/19/19 17:37	
Phenanthrene	mg/kg	ND	0.010	06/19/19 17:37	
Pyrene	mg/kg	ND	0.010	06/19/19 17:37	
2-Fluorobiphenyl (S)	%.	72	30-125	06/19/19 17:37	
p-Terphenyl-d14 (S)	%.	95	30-125	06/19/19 17:37	

LABORATORY CONTROL SAMPLE: 3315648

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.033	0.021	64	33-125	
2-Chloronaphthalene	mg/kg	0.033	0.021	63	47-125	
2-Methylnaphthalene	mg/kg	0.033	0.022	67	49-125	
Acenaphthene	mg/kg	0.033	0.022	66	46-125	
Acenaphthylene	mg/kg	0.033	0.022	65	44-125	
Anthracene	mg/kg	0.033	0.025	74	62-125	
Benzo(a)anthracene	mg/kg	0.033	0.028	85	53-125	
Benzo(a)pyrene	mg/kg	0.033	0.028	83	62-125	
Benzo(b)fluoranthene	mg/kg	0.033	0.030	89	51-125	
Benzo(g,h,i)perylene	mg/kg	0.033	0.028	84	58-125	
Benzo(k)fluoranthene	mg/kg	0.033	0.030	89	59-125	
Chrysene	mg/kg	0.033	0.027	82	59-125	
Dibenz(a,h)anthracene	mg/kg	0.033	0.028	83	60-125	
Fluoranthene	mg/kg	0.033	0.025	76	67-125	
Fluorene	mg/kg	0.033	0.024	72	51-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

LABORATORY CONTROL SAMPLE: 3315648

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	mg/kg	0.033	0.028	85	59-125	
Naphthalene	mg/kg	0.033	0.023	68	47-125	
Phenanthrene	mg/kg	0.033	0.026	79	61-125	
Pyrene	mg/kg	0.033	0.029	88	52-125	
2-Fluorobiphenyl (S)	%.			66	30-125	
p-Terphenyl-d14 (S)	%.			91	30-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3315649 3315650

Parameter	Units	10478381009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	ND	0.035	0.035	0.027	0.023	76	64	30-125	16	30	
2-Chloronaphthalene	mg/kg	ND	0.035	0.035	0.027	0.024	76	67	38-125	13	30	
2-Methylnaphthalene	mg/kg	ND	0.035	0.035	0.027	0.023	77	65	30-125	17	30	
Acenaphthene	mg/kg	ND	0.035	0.035	0.028	0.026	79	72	30-125	8	30	
Acenaphthylene	mg/kg	ND	0.035	0.035	0.027	0.025	75	69	30-125	8	30	
Anthracene	mg/kg	ND	0.035	0.035	0.027	0.027	75	76	30-131	1	30	
Benzo(a)anthracene	mg/kg	ND	0.035	0.035	0.030	0.030	84	84	30-126	0	30	
Benzo(a)pyrene	mg/kg	ND	0.035	0.035	0.029	0.030	81	84	30-150	3	30	
Benzo(b)fluoranthene	mg/kg	ND	0.035	0.035	0.029	0.032	82	90	30-150	8	30	
Benzo(g,h,i)perylene	mg/kg	ND	0.035	0.035	0.029	0.029	80	80	30-150	0	30	
Benzo(k)fluoranthene	mg/kg	ND	0.035	0.035	0.031	0.030	87	85	30-150	2	30	
Chrysene	mg/kg	ND	0.035	0.035	0.029	0.030	81	83	30-150	3	30	
Dibenz(a,h)anthracene	mg/kg	ND	0.035	0.035	0.027	0.029	75	80	30-143	7	30	
Fluoranthene	mg/kg	ND	0.035	0.035	0.028	0.028	77	79	30-143	2	30	
Fluorene	mg/kg	ND	0.035	0.035	0.028	0.027	80	77	30-138	4	30	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.035	0.035	0.028	0.029	77	80	30-150	3	30	
Naphthalene	mg/kg	ND	0.035	0.035	0.024	0.022	68	63	30-125	9	30	
Phenanthrene	mg/kg	ND	0.035	0.035	0.028	0.029	80	81	30-142	2	30	
Pyrene	mg/kg	ND	0.035	0.035	0.031	0.031	86	86	30-149	1	30	
2-Fluorobiphenyl (S)	%.						78	66	30-125			
p-Terphenyl-d14 (S)	%.						86	85	30-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 611971 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3550 Analysis Description: NWTPH-Dx GCS
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381006, 10478381007, 10478381008, 10478381009

METHOD BLANK: 3306832 Matrix: Solid
Associated Lab Samples: 10478381001, 10478381002, 10478381003, 10478381004, 10478381006, 10478381007, 10478381008, 10478381009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	06/12/19 17:48	
Motor Oil Range	mg/kg	ND	10.0	06/12/19 17:48	
n-Triacontane (S)	%.	85	50-150	06/12/19 17:48	
o-Terphenyl (S)	%.	80	50-150	06/12/19 17:48	

LABORATORY CONTROL SAMPLE: 3306833

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	37.6	75	50-150	
Motor Oil Range	mg/kg	50	40.5	81	50-150	
n-Triacontane (S)	%.			70	50-150	
o-Terphenyl (S)	%.			75	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3306834 3306835

Parameter	Units	10478381001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	ND	55.1	55.2	56.0	52.9	89	83	50-150	6	30	
Motor Oil Range	mg/kg	23.2	55.1	55.2	81.4	70.0	106	85	50-150	15	30	
n-Triacontane (S)	%.						82	72	50-150			
o-Terphenyl (S)	%.						86	83	50-150			

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REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

QC Batch: 612794
QC Batch Method: EPA 3550
Analysis Method: NWTPH-Dx
Analysis Description: NWTPH-Dx GCS
Associated Lab Samples: 10478381005

METHOD BLANK: 3311043 Matrix: Solid
Associated Lab Samples: 10478381005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	mg/kg	ND	15.0	06/14/19 13:56	
Motor Oil Range	mg/kg	ND	10.0	06/14/19 13:56	
n-Triacontane (S)	%.	93	50-150	06/14/19 13:56	
o-Terphenyl (S)	%.	99	50-150	06/14/19 13:56	

LABORATORY CONTROL SAMPLE: 3311044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Fuel Range	mg/kg	50	51.0	102	50-150	
Motor Oil Range	mg/kg	50	49.0	98	50-150	
n-Triacontane (S)	%.			99	50-150	
o-Terphenyl (S)	%.			97	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3311045 3311046

Parameter	Units	10478381005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diesel Fuel Range	mg/kg	ND	54.4	54.6	56.5	51.7	102	93	50-150	9	30	
Motor Oil Range	mg/kg	ND	54.4	54.6	56.6	52.3	104	96	50-150	8	30	
n-Triacontane (S)	%.						98	94	50-150			
o-Terphenyl (S)	%.						96	91	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALIFIERS

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: 612183

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 614213

[1]	Multiple diluted samples would not keep footnotes saved. Samples with high final volumes and samples diluted at 10x and above should read "Surrogates were diluted out due to sample dilution."

ANALYTE QUALIFIERS

G-	Early peaks present outside the GRO window.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.
RS	The RPD value in one of the constituent analytes was outside the control limits.

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METHOD CROSS REFERENCE TABLE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Parameter	Matrix	Analytical Method	Preparation Method
8260B MSV 5035 Low Level	Solid	SW-846 8260B	SW-846 5035A/5030B

Pace Analytical Services, LLC
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Minneapolis, MN 55414
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10478381001	SO-11145925-060319-BP-MW-10-35	EPA 3550	611971	NWTPH-Dx	612448
10478381002	SO-11145925-060319-BP-MW-10-40	EPA 3550	611971	NWTPH-Dx	612448
10478381003	SO-11145925-060419-BP-MW-7-50	EPA 3550	611971	NWTPH-Dx	612448
10478381004	SO-11145925-060419-BP-MW-7-55	EPA 3550	611971	NWTPH-Dx	612448
10478381005	SO-11145925-060519-BP-MW-8-50	EPA 3550	612794	NWTPH-Dx	612937
10478381006	SO-11145925-060519-BP-MW-8-55	EPA 3550	611971	NWTPH-Dx	612448
10478381007	SO-11145925-060619-BP-MW-9-40	EPA 3550	611971	NWTPH-Dx	612448
10478381008	SO-11145925-060619-BP-MW-9-45	EPA 3550	611971	NWTPH-Dx	612448
10478381009	SO-11145925-060619-BP-B-17-10	EPA 3550	611971	NWTPH-Dx	612448
10478381001	SO-11145925-060319-BP-MW-10-35	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381002	SO-11145925-060319-BP-MW-10-40	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381003	SO-11145925-060419-BP-MW-7-50	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381004	SO-11145925-060419-BP-MW-7-55	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381005	SO-11145925-060519-BP-MW-8-50	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381006	SO-11145925-060519-BP-MW-8-55	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381007	SO-11145925-060619-BP-MW-9-40	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381008	SO-11145925-060619-BP-MW-9-45	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381009	SO-11145925-060619-BP-B-17-10	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381010	Trip Blank	NWTPH-Gx	613280	NWTPH-Gx	613331
10478381001	SO-11145925-060319-BP-MW-10-35	EPA 3050	612546	EPA 6010D	613322
10478381002	SO-11145925-060319-BP-MW-10-40	EPA 3050	612546	EPA 6010D	613322
10478381003	SO-11145925-060419-BP-MW-7-50	EPA 3050	612546	EPA 6010D	613322
10478381004	SO-11145925-060419-BP-MW-7-55	EPA 3050	612546	EPA 6010D	613322
10478381005	SO-11145925-060519-BP-MW-8-50	EPA 3050	612546	EPA 6010D	613322
10478381006	SO-11145925-060519-BP-MW-8-55	EPA 3050	612546	EPA 6010D	613322
10478381007	SO-11145925-060619-BP-MW-9-40	EPA 3050	612546	EPA 6010D	613322
10478381008	SO-11145925-060619-BP-MW-9-45	EPA 3050	612546	EPA 6010D	613322
10478381009	SO-11145925-060619-BP-B-17-10	EPA 3050	612546	EPA 6010D	613322
10478381001	SO-11145925-060319-BP-MW-10-35	ASTM D2974	612637		
10478381002	SO-11145925-060319-BP-MW-10-40	ASTM D2974	612637		
10478381003	SO-11145925-060419-BP-MW-7-50	ASTM D2974	612637		
10478381004	SO-11145925-060419-BP-MW-7-55	ASTM D2974	612637		
10478381005	SO-11145925-060519-BP-MW-8-50	ASTM D2974	612637		
10478381006	SO-11145925-060519-BP-MW-8-55	ASTM D2974	612637		
10478381007	SO-11145925-060619-BP-MW-9-40	ASTM D2974	612637		
10478381008	SO-11145925-060619-BP-MW-9-45	ASTM D2974	612637		
10478381009	SO-11145925-060619-BP-B-17-10	ASTM D2974	612637		
10478381009	SO-11145925-060619-BP-B-17-10	EPA 3550	613662	EPA 8270D by SIM	614213
10478381001	SO-11145925-060319-BP-MW-10-35	EPA 5035 Low	612144	EPA 8260B	612183

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11145925 P66 1300 W 12th St
Pace Project No.: 10478381

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10478381002	**SO-11145925-060319-BP-MW-10-40**	EPA 5035 Low	612144	EPA 8260B	612183
10478381003	**SO-11145925-060419-BP-MW-7-50**	EPA 5035 Low	612144	EPA 8260B	612183
10478381004	**SO-11145925-060419-BP-MW-7-55**	EPA 5035 Low	612144	EPA 8260B	612183
10478381005	**SO-11145925-060519-BP-MW-8-50**	EPA 5035 Low	612144	EPA 8260B	612183
10478381006	**SO-11145925-060519-BP-MW-8-55**	EPA 5035 Low	612144	EPA 8260B	612183
10478381007	**SO-11145925-060619-BP-MW-9-40**	EPA 5035 Low	612144	EPA 8260B	612183
10478381008	**SO-11145925-060619-BP-MW-9-45**	EPA 5035 Low	612144	EPA 8260B	612183
10478381009	**SO-11145925-060619-BP-B-17-10**	EPA 5035 Low	612144	EPA 8260B	612183
10478381010	**Trip Blank**	EPA 5035 Low	612144	EPA 8260B	612183

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 10478381

10478381

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services Inc.	Report To:	matthew.davis@ghd.com, eric.maise@ghd.com	Attention:	Jeffrey Cloud
Address:	3600 Port of Tacoma Road, Suite 302	Copy To:	jeffrey.cloud@ghd.com, brian.pauley@ghd.com	Company Name:	GHD Services Inc. - 340
	Tacoma, WA 98424			Address:	4660 Kruse Way, Suite 300 Lake Oswego, OR 97035
Email:	matthew.davis@ghd.com	Purchase Order #:		Pace Quote:	2026(30)08-06
Phone:	253-507-6217 Fax	Project Name:	P66 1300 W 12th St AOC 978	Pace Project Manager:	jennifer.gross@pacelabs.com
Requested Due Date:	*Standard*	Project #:	11145925	Pace Profile #:	*38225 / 2 & 3*

Regulatory Agency

State / Location: WA / Vancouver

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Sodium Bisulfate	Methanol	Other	Analyses Test Y/N	NWTPH-Dx	NWTPH-Gx	6010 Lead	6010/7471 RCRA8	8082 PCB	8260 BTEX/MTBE/Naphthalene	8260 HVOC/EDB/EDC	8260 ~~Hexane~~ n-hexane	8260 VOC Full List	8270 PAHSIM	NW-EPH	NW-VPH	Residual Chlorine (Y/N)		
1	SO-11145925-060319-BP-MW-10-35			6/3	1330	6/3	1330		7										X	X	X			X	X							001
2	SO-11145925-060319-BP-MW-10-40			6/3	1345	6/3	1345		7										X	X	X			X	X							002
3	SO-11145925-060419-BP-MW-7-50			6/4	1115	6/4	1115		7										X	X	X			X	X							003
4	SO-11145925-060419-BP-MW-7-55			6/4	1120	6/4	1120		7										X	X	X			X	X							004
5	SO-11145925-060519-BP-MW-8-50			6/5	1030	6/5	1030		7										X	X	X			X	X							005
6	SO-11145925-060519-BP-MW-8-55			6/5	1045	6/5	1045		7										X	X	X			X	X							006
7	SO-11145925-060619-BP-MW-9-40			6/6	0945	6/6	0945		7										X	X	X			X	X							007
8	SO-11145925-060619-BP-MW-9-45			6/6	1000	6/6	1000		7										X	X	X			X	X							008
9	SO-11145925-060619-BP-B-17-10			6/6	1345	6/6	1345		10										X	X	X	[redacted]	X	X	X			X	X	X	NO PCBs -		009
10	Trip blank								5											X				X							See comment below for trip blank		010
11																																
12																																

BTEX, GRX

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
PCBs, PAHs, NWEPH & NWVPH are contingent analyses	Brian Pauley	6/7/19	1130	Pace	6/8/19	0820	2.5 4.0	Y	Y	Y
SSOW 11145925-2019-01 (11145925-PH-Vancouve)										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Pauley

Page 46 of 48

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 09May2019 Page 1 of 1
	Document No.: **F-MN-L-213-rev.28**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** GHD **Project #:** **WO#: 10478381**

PM: JMG **Due Date: 06/17/19**

CLIENT: GHD_WA

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial **See Exception** [X]

Tracking Number: 7877 4700 4428

Custody Seal on Cooler/Box Present? [X] Yes [ ] No **Seals Intact?** [X] Yes [ ] No **Biological Tissue Frozen?** [ ] Yes [ ] No [X] N/A

Packing Material: [X] Bubble Wrap [X] Bubble Bags [ ] None [X] Other: PB **Temp Blank?** [X] Yes [ ] No

Thermometer: [X] T1(0461) [ ] T2(1336) [ ] T3(0459) [ ] T4(0254) [ ] T5(0489) **Type of Ice:** [X] Wet [ ] Blue [ ] None [ ] Dry [ ] Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 2.5 °C **Average Corrected Temp (no temp blank only):** °C **See Exceptions** [ ]

Correction Factor: -0.1 **Cooler Temp Corrected w/temp blank:** 2.5 °C

USDA Regulated Soil: ([ ] N/A, water sample/Other:) **Date/Initials of Person Examining Contents:** CG 6/8/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? [ ] Yes [X] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [X] No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	[X] Yes	[ ] No		1.
Chain of Custody Relinquished?	[X] Yes	[ ] No		2.
Sampler Name and/or Signature on COC?	[X] Yes	[ ] No	[ ] N/A	3.
Samples Arrived within Hold Time?	[X] Yes	[ ] No		4.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No		5. [ ] Fecal Coliform [ ] HPC [ ] Total Coliform/E coli [ ] BOD/cBOD [ ] Hex Chrome [ ] Turbidity [ ] Nitrate [ ] Nitrite [ ] Orthophos [ ] Other
Rush Turn Around Time Requested?	[ ] Yes	[X] No		6.
Sufficient Volume?	[X] Yes	[ ] No		7.
Correct Containers Used?	[X] Yes	[ ] No		8.
-Pace Containers Used?	[X] Yes	[ ] No		
Containers Intact?	[X] Yes	[ ] No		9.
Field Filtered Volume Received for Dissolved Tests?	[ ] Yes	[ ] No	[X] N/A	10. Is sediment visible in the dissolved container? [ ] Yes [ ] No
Is sufficient information available to reconcile the samples to the COC?	[X] Yes	[ ] No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** [ ]
Matrix: [ ] Water [X] Soil [ ] Oil [ ] Other				
All containers needing acid/base preservation have been checked?	[ ] Yes	[ ] No	[X] N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	[ ] Yes	[ ] No	[X] N/A	[ ] NaOH [ ] HNO_3 [ ] H_2SO_4 [ ] Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	[ ] Yes	[ ] No	[X] N/A	Positive for Res. Chlorine? [ ] Yes [ ] No **pH Paper Lot#** **See Exception** [ ]
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	[ ] Yes	[ ] No	[X] N/A	13. **See Exception** [ ]
Trip Blank Present?	[X] Yes	[ ] No	[ ] N/A	14.
Trip Blank Custody Seals Present?	[X] Yes	[ ] No	[ ] N/A	Pace Trip Blank Lot # (if purchased): 012119-3, 123118-3

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Jenji Gross **Date:** 06/10/19

Note: Whenever there is a discrepancy affecting North Car ples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: FE

Pace Analytical	Document Name: **SCUR Exception Form – Coolers Above 6°C**	Document Revised: 08Apr2019 Page 1 of 1
	Document No.: **F-MN-C-298-Rev.02**	Issuing Authority: Pace Minnesota Quality Office

During sample triage, this form is to be placed in each cooler that arrives above 6.0 degrees Celsius

SCUR Exceptions: **Workorder #:** 10478381

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank

Read Temp	Corrected Temp	Average Temp

Tracking Number/Temperature	
7787 4706 0530	4.0

Other Issues

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

August 08, 2019

Matthew Davis
GHD Services Inc.
3600 Port of Tacoma Road
Suite 302
Tacoma, WA 98424

RE: Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Dear Matthew Davis:
Enclosed are the analytical results for sample(s) received by the laboratory between July 24, 2019 and July 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
(206)957-2426
Project Manager

Enclosures

cc: Rosemarie Borths, GHD Services Inc.
Jeffrey Cloud, GHD Services Inc.
Heather Gadwa, GHD
Eric Maise, GHD Services Inc.

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10484467001	**MW-1**	Water	07/19/19 11:18	07/24/19 08:40
10484467002	**MW-2**	Water	07/19/19 12:47	07/24/19 08:40
10484467003	**MW-4**	Water	07/19/19 12:04	07/24/19 08:40
10484467004	**MW-5A**	Water	07/19/19 11:22	07/24/19 08:40
10484467005	**MW-6**	Water	07/19/19 10:10	07/24/19 08:40
10484467006	**MW-7**	Water	07/19/19 10:39	07/24/19 08:40
10484467007	**MW-8**	Water	07/19/19 09:56	07/24/19 08:40
10484467008	**MW-9**	Water	07/19/19 12:18	07/24/19 08:40
10484467009	**MW-10**	Water	07/19/19 13:10	07/24/19 08:40
10484467010	**Dup-1**	Water	07/19/19 00:00	07/26/19 08:45
10484467011	**TB**	Water	07/19/19 08:30	07/24/19 08:40

Pace Analytical Services, LLC
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(612)607-1700

SAMPLE ANALYTE COUNT

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10484467001	**MW-1**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467002	**MW-2**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467003	**MW-4**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467004	**MW-5A**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467005	**MW-6**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467006	**MW-7**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467007	**MW-8**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467008	**MW-9**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	AEZ	42	PASI-M
10484467009	**MW-10**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	DS2	42	PASI-M
10484467010	**Dup-1**	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	DS2	42	PASI-M
10484467011	**TB**	NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	DS2	42	PASI-M

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PROJECT NARRATIVE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS LV
Client: GHD Services Inc
Date: August 08, 2019

General Information:
10 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H2: Extraction or preparation was conducted outside of the recognized method holding time.
- Dup-1 (Lab ID: 10484467010)

Sample Preparation:
The samples were prepared in accordance with EPA Mod. 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 622931

S0: Surrogate recovery outside laboratory control limits.
- DUP (Lab ID: 3362429)
  - n-Triacontane (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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PROJECT NARRATIVE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Method: **NWTPH-Dx**
Description: NWTPH-Dx GCS LV
Client: GHD Services Inc
Date: August 08, 2019

Analyte Comments:

QC Batch: 622931

P2: Re-extraction or re-analysis could not be performed due to insufficient sample amount.

- DUP (Lab ID: 3362429)
  - Diesel Fuel Range
- Dup-1 (Lab ID: 10484467010)
  - Diesel Fuel Range

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PROJECT NARRATIVE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Method: **NWTPH-Gx**
Description: NWTPH-Gx GCV
Client: GHD Services Inc
Date: August 08, 2019

General Information:
11 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Method: **EPA 8260B**
Description: 8260B VOC
Client: GHD Services Inc
Date: August 08, 2019

General Information:
11 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 622870

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 3362153)
  - Bromomethane
- LCS (Lab ID: 3362154)
  - Bromomethane
- MS (Lab ID: 3362720)
  - Bromomethane
- MSD (Lab ID: 3362721)
  - Bromomethane
- MW-1 (Lab ID: 10484467001)
  - Bromomethane
- MW-2 (Lab ID: 10484467002)
  - Bromomethane
- MW-4 (Lab ID: 10484467003)
  - Bromomethane
- MW-5A (Lab ID: 10484467004)
  - Bromomethane
- MW-6 (Lab ID: 10484467005)
  - Bromomethane
- MW-7 (Lab ID: 10484467006)
  - Bromomethane
- MW-8 (Lab ID: 10484467007)
  - Bromomethane
- MW-9 (Lab ID: 10484467008)
  - Bromomethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Method: **EPA 8260B**
Description: 8260B VOC
Client: GHD Services Inc
Date: August 08, 2019

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-1 **Lab ID: 10484467001** Collected: 07/19/19 11:18 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	385	1	07/25/19 13:09	07/29/19 18:45	68334-30-5	
Motor Oil Range	ND	ug/L	385	1	07/25/19 13:09	07/29/19 18:45		
Surrogates								
o-Terphenyl (S)	86	%.	50-150	1	07/25/19 13:09	07/29/19 18:45	84-15-1	
n-Triacontane (S)	87	%.	50-150	1	07/25/19 13:09	07/29/19 18:45	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 05:08		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	50-150	1		08/02/19 05:08	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 14:47	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 14:47	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 14:47	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 14:47	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 14:47	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 14:47	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 14:47	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 14:47	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 14:47	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 14:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 14:47	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 14:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 14:47	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 14:47	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 14:47	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 14:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 14:47	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 14:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/30/19 14:47	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 14:47	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 14:47	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 14:47	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 14:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 14:47	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 14:47	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 14:47	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 14:47	91-20-3	
Tetrachloroethene	**1.1**	ug/L	1.0	1		07/30/19 14:47	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 14:47	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 14:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 14:47	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 14:47	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 14:47	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 14:47	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 14:47	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-1 **Lab ID: 10484467001** Collected: 07/19/19 11:18 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 14:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 14:47	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 14:47	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 14:47	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	75-125	1		07/30/19 14:47	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 14:47	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	1		07/30/19 14:47	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-2 **Lab ID: 10484467002** Collected: 07/19/19 12:47 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	377	1	07/25/19 13:09	07/29/19 19:04	68334-30-5	
Motor Oil Range	ND	ug/L	377	1	07/25/19 13:09	07/29/19 19:04		
Surrogates								
o-Terphenyl (S)	86	%.	50-150	1	07/25/19 13:09	07/29/19 19:04	84-15-1	
n-Triacontane (S)	84	%.	50-150	1	07/25/19 13:09	07/29/19 19:04	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 02:35		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	50-150	1		08/02/19 02:35	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:04	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 15:04	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:04	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:04	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:04	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 15:04	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:04	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:04	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 15:04	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:04	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 15:04	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 15:04	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 15:04	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 15:04	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 15:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 15:04	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 15:04	75-00-3	
Chloroform	**2.5**	ug/L	1.0	1		07/30/19 15:04	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 15:04	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 15:04	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 15:04	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 15:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 15:04	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 15:04	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 15:04	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 15:04	91-20-3	
Tetrachloroethene	**1.5**	ug/L	1.0	1		07/30/19 15:04	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 15:04	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 15:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 15:04	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 15:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 15:04	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:04	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:04	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-2 **Lab ID: 10484467002** Collected: 07/19/19 12:47 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 15:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 15:04	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:04	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:04	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%.	75-125	1		07/30/19 15:04	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		07/30/19 15:04	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	1		07/30/19 15:04	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-4 **Lab ID: 10484467003** Collected: 07/19/19 12:04 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	385	1	07/25/19 13:09	07/29/19 19:13	68334-30-5	
Motor Oil Range	ND	ug/L	385	1	07/25/19 13:09	07/29/19 19:13		
Surrogates								
o-Terphenyl (S)	61	%.	50-150	1	07/25/19 13:09	07/29/19 19:13	84-15-1	
n-Triacontane (S)	57	%.	50-150	1	07/25/19 13:09	07/29/19 19:13	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 02:52		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	50-150	1		08/02/19 02:52	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 12:17	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 12:17	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 12:17	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 12:17	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 12:17	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 12:17	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 12:17	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 12:17	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 12:17	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 12:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 12:17	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 12:17	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 12:17	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 12:17	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 12:17	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 12:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 12:17	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 12:17	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/30/19 12:17	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 12:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 12:17	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 12:17	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 12:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 12:17	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 12:17	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 12:17	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 12:17	91-20-3	
Tetrachloroethene	**3.1**	ug/L	1.0	1		07/30/19 12:17	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 12:17	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 12:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 12:17	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 12:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 12:17	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 12:17	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 12:17	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-4 **Lab ID: 10484467003** Collected: 07/19/19 12:04 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 12:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 12:17	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 12:17	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 12:17	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1		07/30/19 12:17	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 12:17	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		07/30/19 12:17	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-5A **Lab ID: 10484467004** Collected: 07/19/19 11:22 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	377	1	07/25/19 13:09	07/29/19 19:23	68334-30-5	
Motor Oil Range	ND	ug/L	377	1	07/25/19 13:09	07/29/19 19:23		
Surrogates								
o-Terphenyl (S)	80	%.	50-150	1	07/25/19 13:09	07/29/19 19:23	84-15-1	
n-Triacontane (S)	79	%.	50-150	1	07/25/19 13:09	07/29/19 19:23	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 03:09		
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%.	50-150	1		08/02/19 03:09	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:21	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 15:21	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:21	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:21	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:21	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 15:21	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:21	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:21	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 15:21	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:21	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 15:21	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 15:21	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 15:21	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 15:21	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 15:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 15:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 15:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/30/19 15:21	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 15:21	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 15:21	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 15:21	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 15:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 15:21	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 15:21	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 15:21	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 15:21	91-20-3	
Tetrachloroethene	**4.1**	ug/L	1.0	1		07/30/19 15:21	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 15:21	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 15:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 15:21	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 15:21	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 15:21	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:21	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:21	10061-01-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-5A **Lab ID: 10484467004** Collected: 07/19/19 11:22 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 15:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 15:21	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:21	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:21	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1		07/30/19 15:21	17060-07-0	
Toluene-d8 (S)	96	%.	75-125	1		07/30/19 15:21	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	75-125	1		07/30/19 15:21	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-6 **Lab ID: 10484467005** Collected: 07/19/19 10:10 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	417	1	07/25/19 13:09	07/29/19 19:32	68334-30-5	
Motor Oil Range	ND	ug/L	417	1	07/25/19 13:09	07/29/19 19:32		
Surrogates								
o-Terphenyl (S)	76	%.	50-150	1	07/25/19 13:09	07/29/19 19:32	84-15-1	
n-Triacontane (S)	71	%.	50-150	1	07/25/19 13:09	07/29/19 19:32	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 03:26		
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%.	50-150	1		08/02/19 03:26	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:37	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 15:37	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:37	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:37	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:37	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 15:37	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:37	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:37	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 15:37	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:37	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 15:37	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 15:37	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 15:37	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 15:37	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 15:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 15:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 15:37	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/30/19 15:37	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 15:37	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 15:37	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 15:37	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 15:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 15:37	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 15:37	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 15:37	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 15:37	91-20-3	
Tetrachloroethene	ND	ug/L	1.0	1		07/30/19 15:37	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 15:37	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 15:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 15:37	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 15:37	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 15:37	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:37	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:37	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-6 **Lab ID: 10484467005** Collected: 07/19/19 10:10 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 15:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 15:37	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:37	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:37	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1		07/30/19 15:37	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 15:37	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	75-125	1		07/30/19 15:37	460-00-4	

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-7 **Lab ID: 10484467006** Collected: 07/19/19 10:39 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	417	1	07/25/19 13:09	07/29/19 19:41	68334-30-5	
Motor Oil Range	ND	ug/L	417	1	07/25/19 13:09	07/29/19 19:41		
Surrogates								
o-Terphenyl (S)	72	%.	50-150	1	07/25/19 13:09	07/29/19 19:41	84-15-1	
n-Triacontane (S)	70	%.	50-150	1	07/25/19 13:09	07/29/19 19:41	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 03:43		
Surrogates								
a,a,a-Trifluorotoluene (S)	98	%.	50-150	1		08/02/19 03:43	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:54	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 15:54	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 15:54	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:54	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:54	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 15:54	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:54	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 15:54	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 15:54	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 15:54	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 15:54	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 15:54	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 15:54	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 15:54	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 15:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 15:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 15:54	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/30/19 15:54	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 15:54	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 15:54	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 15:54	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 15:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 15:54	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 15:54	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 15:54	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 15:54	91-20-3	
Tetrachloroethene	**1.0**	ug/L	1.0	1		07/30/19 15:54	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 15:54	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 15:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 15:54	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 15:54	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 15:54	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:54	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:54	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-7 **Lab ID: 10484467006** Collected: 07/19/19 10:39 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 15:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 15:54	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 15:54	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 15:54	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%.	75-125	1		07/30/19 15:54	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 15:54	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1		07/30/19 15:54	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-8 **Lab ID: 10484467007** Collected: 07/19/19 09:56 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	392	1	07/25/19 13:09	07/29/19 19:51	68334-30-5	
Motor Oil Range	ND	ug/L	392	1	07/25/19 13:09	07/29/19 19:51		
Surrogates								
o-Terphenyl (S)	82	%.	50-150	1	07/25/19 13:09	07/29/19 19:51	84-15-1	
n-Triacontane (S)	81	%.	50-150	1	07/25/19 13:09	07/29/19 19:51	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 05:41		
Surrogates								
a,a,a-Trifluorotoluene (S)	99	%.	50-150	1		08/02/19 05:41	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 16:11	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 16:11	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 16:11	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 16:11	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 16:11	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 16:11	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 16:11	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 16:11	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 16:11	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 16:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 16:11	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 16:11	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 16:11	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 16:11	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 16:11	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 16:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 16:11	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 16:11	75-00-3	
Chloroform	**1.3**	ug/L	1.0	1		07/30/19 16:11	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 16:11	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 16:11	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 16:11	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 16:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 16:11	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 16:11	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 16:11	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 16:11	91-20-3	
Tetrachloroethene	ND	ug/L	1.0	1		07/30/19 16:11	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 16:11	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 16:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 16:11	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 16:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 16:11	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 16:11	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 16:11	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-8 **Lab ID: 10484467007** Collected: 07/19/19 09:56 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 16:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 16:11	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 16:11	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 16:11	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%.	75-125	1		07/30/19 16:11	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 16:11	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	75-125	1		07/30/19 16:11	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-9 **Lab ID: 10484467008** Collected: 07/19/19 12:18 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	392	1	07/25/19 13:09	07/29/19 20:00	68334-30-5	
Motor Oil Range	ND	ug/L	392	1	07/25/19 13:09	07/29/19 20:00		
Surrogates								
o-Terphenyl (S)	69	%.	50-150	1	07/25/19 13:09	07/29/19 20:00	84-15-1	
n-Triacontane (S)	66	%.	50-150	1	07/25/19 13:09	07/29/19 20:00	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 05:58		
Surrogates								
a,a,a-Trifluorotoluene (S)	98	%.	50-150	1		08/02/19 05:58	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 16:27	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 16:27	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 16:27	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 16:27	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 16:27	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 16:27	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 16:27	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 16:27	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 16:27	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 16:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 16:27	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 16:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 16:27	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 16:27	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 16:27	74-83-9	CL
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 16:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 16:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 16:27	75-00-3	
Chloroform	**3.5**	ug/L	1.0	1		07/30/19 16:27	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 16:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		07/30/19 16:27	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 16:27	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 16:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 16:27	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 16:27	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 16:27	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 16:27	91-20-3	
Tetrachloroethene	**1.2**	ug/L	1.0	1		07/30/19 16:27	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 16:27	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 16:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 16:27	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 16:27	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 16:27	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 16:27	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 16:27	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-9 **Lab ID: 10484467008** Collected: 07/19/19 12:18 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 16:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 16:27	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 16:27	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 16:27	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1		07/30/19 16:27	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 16:27	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1		07/30/19 16:27	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-10 **Lab ID: 10484467009** Collected: 07/19/19 13:10 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	417	1	07/25/19 13:09	07/29/19 20:10	68334-30-5	
Motor Oil Range	ND	ug/L	417	1	07/25/19 13:09	07/29/19 20:10		
Surrogates								
o-Terphenyl (S)	86	%.	50-150	1	07/25/19 13:09	07/29/19 20:10	84-15-1	
n-Triacontane (S)	83	%.	50-150	1	07/25/19 13:09	07/29/19 20:10	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 06:15		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	50-150	1		08/02/19 06:15	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/31/19 01:23	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/31/19 01:23	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/31/19 01:23	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/31/19 01:23	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/31/19 01:23	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/31/19 01:23	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/31/19 01:23	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/31/19 01:23	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/31/19 01:23	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/31/19 01:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/31/19 01:23	106-46-7	
Benzene	ND	ug/L	1.0	1		07/31/19 01:23	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/31/19 01:23	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/31/19 01:23	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/31/19 01:23	74-83-9	
Carbon tetrachloride	ND	ug/L	1.0	1		07/31/19 01:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/31/19 01:23	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/31/19 01:23	75-00-3	
Chloroform	ND	ug/L	4.0	1		07/31/19 01:23	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/31/19 01:23	74-87-3	
Dibromochloromethane	ND	ug/L	4.0	1		07/31/19 01:23	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/31/19 01:23	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/31/19 01:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/31/19 01:23	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/31/19 01:23	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/31/19 01:23	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/31/19 01:23	91-20-3	
Tetrachloroethene	**1.5**	ug/L	1.0	1		07/31/19 01:23	127-18-4	
Toluene	ND	ug/L	1.0	1		07/31/19 01:23	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/31/19 01:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/31/19 01:23	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/31/19 01:23	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/31/19 01:23	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/31/19 01:23	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/31/19 01:23	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: MW-10 **Lab ID: 10484467009** Collected: 07/19/19 13:10 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/31/19 01:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/31/19 01:23	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/31/19 01:23	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/31/19 01:23	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		07/31/19 01:23	17060-07-0	
Toluene-d8 (S)	96	%.	75-125	1		07/31/19 01:23	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		07/31/19 01:23	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: Dup-1 **Lab ID: 10484467010** Collected: 07/19/19 00:00 Received: 07/26/19 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV	Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C							
Diesel Fuel Range	ND	ug/L	400	1	07/30/19 14:26	07/31/19 14:18	68334-30-5	H2,P2
Motor Oil Range	ND	ug/L	400	1	07/30/19 14:26	07/31/19 14:18		H2
Surrogates								
o-Terphenyl (S)	70	%.	50-150	1	07/30/19 14:26	07/31/19 14:18	84-15-1	
n-Triacontane (S)	82	%.	50-150	1	07/30/19 14:26	07/31/19 14:18	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 06:32		
Surrogates								
a,a,a-Trifluorotoluene (S)	101	%.	50-150	1		08/02/19 06:32	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/31/19 01:40	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/31/19 01:40	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/31/19 01:40	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/31/19 01:40	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/31/19 01:40	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/31/19 01:40	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/31/19 01:40	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/31/19 01:40	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/31/19 01:40	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/31/19 01:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/31/19 01:40	106-46-7	
Benzene	ND	ug/L	1.0	1		07/31/19 01:40	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/31/19 01:40	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/31/19 01:40	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/31/19 01:40	74-83-9	
Carbon tetrachloride	ND	ug/L	1.0	1		07/31/19 01:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/31/19 01:40	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/31/19 01:40	75-00-3	
Chloroform	ND	ug/L	4.0	1		07/31/19 01:40	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/31/19 01:40	74-87-3	
Dibromochloromethane	ND	ug/L	4.0	1		07/31/19 01:40	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/31/19 01:40	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/31/19 01:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/31/19 01:40	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/31/19 01:40	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/31/19 01:40	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/31/19 01:40	91-20-3	
Tetrachloroethene	**1.4**	ug/L	1.0	1		07/31/19 01:40	127-18-4	
Toluene	ND	ug/L	1.0	1		07/31/19 01:40	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/31/19 01:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/31/19 01:40	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/31/19 01:40	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/31/19 01:40	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/31/19 01:40	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/31/19 01:40	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: Dup-1 **Lab ID: 10484467010** Collected: 07/19/19 00:00 Received: 07/26/19 08:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
m&p-Xylene	ND	ug/L	2.0	1		07/31/19 01:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/31/19 01:40	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/31/19 01:40	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/31/19 01:40	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		07/31/19 01:40	17060-07-0	
Toluene-d8 (S)	96	%.	75-125	1		07/31/19 01:40	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1		07/31/19 01:40	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: TB **Lab ID: 10484467011** Collected: 07/19/19 08:30 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		08/02/19 04:51		
Surrogates								
a,a,a-Trifluorotoluene (S)	98	%.	50-150	1		08/02/19 04:51	98-08-8	
8260B VOC	Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/30/19 21:41	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/30/19 21:41	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/30/19 21:41	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/30/19 21:41	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/30/19 21:41	75-35-4	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/30/19 21:41	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 21:41	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/30/19 21:41	107-06-2	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/30/19 21:41	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 21:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/30/19 21:41	106-46-7	
Benzene	ND	ug/L	1.0	1		07/30/19 21:41	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		07/30/19 21:41	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/30/19 21:41	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/30/19 21:41	74-83-9	
Carbon tetrachloride	ND	ug/L	1.0	1		07/30/19 21:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/30/19 21:41	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/30/19 21:41	75-00-3	
Chloroform	ND	ug/L	4.0	1		07/30/19 21:41	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/30/19 21:41	74-87-3	
Dibromochloromethane	ND	ug/L	4.0	1		07/30/19 21:41	124-48-1	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/30/19 21:41	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		07/30/19 21:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/30/19 21:41	87-68-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/30/19 21:41	1634-04-4	
Methylene Chloride	ND	ug/L	4.0	1		07/30/19 21:41	75-09-2	
Naphthalene	ND	ug/L	4.0	1		07/30/19 21:41	91-20-3	
Tetrachloroethene	ND	ug/L	1.0	1		07/30/19 21:41	127-18-4	
Toluene	ND	ug/L	1.0	1		07/30/19 21:41	108-88-3	
Trichloroethene	ND	ug/L	0.40	1		07/30/19 21:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/30/19 21:41	75-69-4	
Vinyl chloride	ND	ug/L	0.20	1		07/30/19 21:41	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/30/19 21:41	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 21:41	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 21:41	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		07/30/19 21:41	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		07/30/19 21:41	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/30/19 21:41	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/30/19 21:41	10061-02-6	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1		07/30/19 21:41	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		07/30/19 21:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Sample: TB **Lab ID: 10484467011** Collected: 07/19/19 08:30 Received: 07/24/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Surrogates								
4-Bromofluorobenzene (S)	101	%.	75-125	1		07/30/19 21:41	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

QC Batch: 623579 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008, 10484467009, 10484467010, 10484467011

METHOD BLANK: 3365856 Matrix: Water
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008, 10484467009, 10484467010, 10484467011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	08/02/19 01:27	
a,a,a-Trifluorotoluene (S)	%.	107	50-150	08/02/19 01:27	

METHOD BLANK: 3365857 Matrix: Water
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008, 10484467009, 10484467010, 10484467011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	08/02/19 04:34	
a,a,a-Trifluorotoluene (S)	%.	93	50-150	08/02/19 04:34	

LABORATORY CONTROL SAMPLE & LCSD: 3365858 3365859

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1050	1090	105	109	75-125	4	20	
a,a,a-Trifluorotoluene (S)	%.				112	108	50-150			

SAMPLE DUPLICATE: 3366098

Parameter	Units	10483965006 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	104	98			

SAMPLE DUPLICATE: 3366099

Parameter	Units	10484467001 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	102	99			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

QC Batch: 622870 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008

METHOD BLANK: 3362153 Matrix: Water
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	07/30/19 12:00	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/30/19 12:00	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/30/19 12:00	
1,1-Dichloroethane	ug/L	ND	1.0	07/30/19 12:00	
1,1-Dichloroethene	ug/L	ND	1.0	07/30/19 12:00	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/30/19 12:00	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/30/19 12:00	
1,2-Dichloroethane	ug/L	ND	1.0	07/30/19 12:00	
1,2-Dichloropropane	ug/L	ND	4.0	07/30/19 12:00	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/30/19 12:00	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/30/19 12:00	
Benzene	ug/L	ND	1.0	07/30/19 12:00	
Bromodichloromethane	ug/L	ND	1.0	07/30/19 12:00	
Bromoform	ug/L	ND	4.0	07/30/19 12:00	
Bromomethane	ug/L	ND	4.0	07/30/19 12:00	CL
Carbon tetrachloride	ug/L	ND	1.0	07/30/19 12:00	
Chlorobenzene	ug/L	ND	1.0	07/30/19 12:00	
Chloroethane	ug/L	ND	1.0	07/30/19 12:00	
Chloroform	ug/L	ND	1.0	07/30/19 12:00	
Chloromethane	ug/L	ND	4.0	07/30/19 12:00	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/30/19 12:00	
cis-1,3-Dichloropropene	ug/L	ND	4.0	07/30/19 12:00	
Dibromochloromethane	ug/L	ND	1.0	07/30/19 12:00	
Dichlorodifluoromethane	ug/L	ND	1.0	07/30/19 12:00	
Ethylbenzene	ug/L	ND	1.0	07/30/19 12:00	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/30/19 12:00	
m&p-Xylene	ug/L	ND	2.0	07/30/19 12:00	
Methyl-tert-butyl ether	ug/L	ND	1.0	07/30/19 12:00	
Methylene Chloride	ug/L	ND	4.0	07/30/19 12:00	
Naphthalene	ug/L	ND	4.0	07/30/19 12:00	
o-Xylene	ug/L	ND	1.0	07/30/19 12:00	
Tetrachloroethene	ug/L	ND	1.0	07/30/19 12:00	
Toluene	ug/L	ND	1.0	07/30/19 12:00	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/30/19 12:00	
trans-1,3-Dichloropropene	ug/L	ND	4.0	07/30/19 12:00	
Trichloroethene	ug/L	ND	0.40	07/30/19 12:00	
Trichlorofluoromethane	ug/L	ND	1.0	07/30/19 12:00	
Vinyl chloride	ug/L	ND	0.20	07/30/19 12:00	
Xylene (Total)	ug/L	ND	3.0	07/30/19 12:00	
1,2-Dichloroethane-d4 (S)	%.	104	75-125	07/30/19 12:00	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

METHOD BLANK: 3362153 Matrix: Water
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%.	98	75-125	07/30/19 12:00	
Toluene-d8 (S)	%.	98	75-125	07/30/19 12:00	

LABORATORY CONTROL SAMPLE: 3362154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	10	8.8	88	75-125	
1,1,2,2-Tetrachloroethane	ug/L	10	9.7	97	71-128	
1,1,2-Trichloroethane	ug/L	10	9.7	97	75-125	
1,1-Dichloroethane	ug/L	10	8.9	89	75-125	
1,1-Dichloroethene	ug/L	10	8.1	81	69-125	
1,2-Dibromoethane (EDB)	ug/L	10	9.7	97	75-125	
1,2-Dichlorobenzene	ug/L	10	8.7	87	75-125	
1,2-Dichloroethane	ug/L	10	8.5	85	71-125	
1,2-Dichloropropane	ug/L	10	9.1	91	72-125	
1,3-Dichlorobenzene	ug/L	10	8.9	89	75-125	
1,4-Dichlorobenzene	ug/L	10	9.1	91	75-125	
Benzene	ug/L	10	8.4	84	75-125	
Bromodichloromethane	ug/L	10	8.5	85	75-125	
Bromoform	ug/L	10	7.7	77	74-125	
Bromomethane	ug/L	10	4.6	46	30-150	CL
Carbon tetrachloride	ug/L	10	9.3	93	70-125	
Chlorobenzene	ug/L	10	9.4	94	75-125	
Chloroethane	ug/L	10	8.5	85	64-129	
Chloroform	ug/L	10	9.0	90	75-125	
Chloromethane	ug/L	10	7.6	76	67-125	
cis-1,2-Dichloroethene	ug/L	10	8.4	84	73-125	
cis-1,3-Dichloropropene	ug/L	10	8.2	82	75-125	
Dibromochloromethane	ug/L	10	8.6	86	75-125	
Dichlorodifluoromethane	ug/L	10	10.1	101	65-129	
Ethylbenzene	ug/L	10	9.8	98	75-125	
Hexachloro-1,3-butadiene	ug/L	10	8.5	85	66-137	
m&p-Xylene	ug/L	20	19.3	97	75-125	
Methyl-tert-butyl ether	ug/L	10	8.1	81	75-125	
Methylene Chloride	ug/L	10	7.5	75	72-125	
Naphthalene	ug/L	10	7.9	79	63-125	
o-Xylene	ug/L	10	9.2	92	75-125	
Tetrachloroethene	ug/L	10	9.5	95	75-125	
Toluene	ug/L	10	9.4	94	75-125	
trans-1,2-Dichloroethene	ug/L	10	7.9	79	70-125	
trans-1,3-Dichloropropene	ug/L	10	8.8	88	75-125	
Trichloroethene	ug/L	10	8.7	87	74-125	
Trichlorofluoromethane	ug/L	10	9.9	99	74-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

LABORATORY CONTROL SAMPLE: 3362154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	10	8.3	83	71-125	
Xylene (Total)	ug/L	30	28.5	95	75-125	
1,2-Dichloroethane-d4 (S)	%.			104	75-125	
4-Bromofluorobenzene (S)	%.			99	75-125	
Toluene-d8 (S)	%.			108	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362720 3362721

Parameter	Units	10484467003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	10	10	8.0	7.8	80	78	30-150	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	10	10	8.3	8.4	83	84	30-150	1	30	
1,1,2-Trichloroethane	ug/L	ND	10	10	7.0	6.9	70	69	30-150	1	30	
1,1-Dichloroethane	ug/L	ND	10	10	7.7	7.5	77	75	30-150	2	30	
1,1-Dichloroethene	ug/L	ND	10	10	7.5	7.2	75	72	30-150	4	30	
1,2-Dibromoethane (EDB)	ug/L	ND	10	10	6.7	6.7	67	67	30-150	1	30	
1,2-Dichlorobenzene	ug/L	ND	10	10	7.4	7.5	74	75	30-150	1	30	
1,2-Dichloroethane	ug/L	ND	10	10	7.5	7.2	75	72	30-150	5	30	
1,2-Dichloropropane	ug/L	ND	10	10	7.9	7.6	79	76	30-150	3	30	
1,3-Dichlorobenzene	ug/L	ND	10	10	7.4	7.5	74	75	30-150	1	30	
1,4-Dichlorobenzene	ug/L	ND	10	10	7.8	8.0	78	80	30-150	2	30	
Benzene	ug/L	ND	10	10	7.3	7.3	73	73	30-150	1	30	
Bromodichloromethane	ug/L	ND	10	10	7.3	7.1	73	71	30-150	4	30	
Bromoform	ug/L	ND	10	10	5.7	5.7	57	57	30-150	0	30	
Bromomethane	ug/L	ND	10	10	5.7	4.8	57	48	30-150	16	30	CL
Carbon tetrachloride	ug/L	ND	10	10	8.6	8.2	86	82	30-150	4	30	
Chlorobenzene	ug/L	ND	10	10	6.9	7.1	69	71	30-150	2	30	
Chloroethane	ug/L	ND	10	10	7.9	8.0	79	80	30-150	1	30	
Chloroform	ug/L	ND	10	10	7.8	7.7	74	74	30-150	1	30	
Chloromethane	ug/L	ND	10	10	7.5	8.0	68	74	30-150	7	30	
cis-1,2-Dichloroethene	ug/L	ND	10	10	7.2	7.3	72	73	30-150	2	30	
cis-1,3-Dichloropropene	ug/L	ND	10	10	6.8	6.6	68	66	30-145	3	30	
Dibromochloromethane	ug/L	ND	10	10	6.2	6.3	62	63	30-150	2	30	
Dichlorodifluoromethane	ug/L	ND	10	10	8.7	9.2	87	92	30-150	5	30	
Ethylbenzene	ug/L	ND	10	10	7.1	7.2	71	72	30-150	1	30	
Hexachloro-1,3-butadiene	ug/L	ND	10	10	9.2	8.6	92	86	30-150	7	30	
m&p-Xylene	ug/L	ND	20	20	14.0	14.3	70	71	30-150	2	30	
Methyl-tert-butyl ether	ug/L	ND	10	10	6.8	6.7	68	67	30-150	3	30	
Methylene Chloride	ug/L	ND	10	10	6.4	6.0	64	60	30-146	6	30	
Naphthalene	ug/L	ND	10	10	7.3	7.5	73	75	30-150	3	30	
o-Xylene	ug/L	ND	10	10	6.6	6.7	66	67	30-150	1	30	
Tetrachloroethene	ug/L	3.1	10	10	10.0	10.2	70	72	30-150	2	30	
Toluene	ug/L	ND	10	10	7.1	7.2	71	72	30-150	1	30	
trans-1,2-Dichloroethene	ug/L	ND	10	10	7.3	6.9	73	69	30-150	6	30	
trans-1,3-Dichloropropene	ug/L	ND	10	10	6.5	6.4	65	64	30-150	0	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362720 3362721

Parameter	Units	10484467003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Trichloroethene	ug/L	ND	10	10	7.9	7.7	79	77	30-150	3	30	
Trichlorofluoromethane	ug/L	ND	10	10	8.6	9.0	86	90	30-150	5	30	
Vinyl chloride	ug/L	ND	10	10	7.7	7.8	77	78	30-150	0	30	
Xylene (Total)	ug/L	ND	30	30	20.6	21.0	69	70	30-150	2	30	
1,2-Dichloroethane-d4 (S)	%.						104	101	75-125			
4-Bromofluorobenzene (S)	%.						98	99	75-125			
Toluene-d8 (S)	%.						96	94	75-125			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

QC Batch: 623004 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10484467009, 10484467010, 10484467011

METHOD BLANK: 3362860 Matrix: Water
Associated Lab Samples: 10484467009, 10484467010, 10484467011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	07/30/19 21:24	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/30/19 21:24	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/30/19 21:24	
1,1-Dichloroethane	ug/L	ND	1.0	07/30/19 21:24	
1,1-Dichloroethene	ug/L	ND	1.0	07/30/19 21:24	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/30/19 21:24	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/30/19 21:24	
1,2-Dichloroethane	ug/L	ND	1.0	07/30/19 21:24	
1,2-Dichloropropane	ug/L	ND	4.0	07/30/19 21:24	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/30/19 21:24	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/30/19 21:24	
Benzene	ug/L	ND	1.0	07/30/19 21:24	
Bromodichloromethane	ug/L	ND	1.0	07/30/19 21:24	
Bromoform	ug/L	ND	4.0	07/30/19 21:24	
Bromomethane	ug/L	ND	4.0	07/30/19 21:24	
Carbon tetrachloride	ug/L	ND	1.0	07/30/19 21:24	
Chlorobenzene	ug/L	ND	1.0	07/30/19 21:24	
Chloroethane	ug/L	ND	1.0	07/30/19 21:24	
Chloroform	ug/L	ND	4.0	07/30/19 21:24	MN
Chloromethane	ug/L	ND	4.0	07/30/19 21:24	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/30/19 21:24	
cis-1,3-Dichloropropene	ug/L	ND	4.0	07/30/19 21:24	
Dibromochloromethane	ug/L	ND	4.0	07/30/19 21:24	MN
Dichlorodifluoromethane	ug/L	ND	1.0	07/30/19 21:24	
Ethylbenzene	ug/L	ND	1.0	07/30/19 21:24	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/30/19 21:24	
m&p-Xylene	ug/L	ND	2.0	07/30/19 21:24	
Methyl-tert-butyl ether	ug/L	ND	1.0	07/30/19 21:24	
Methylene Chloride	ug/L	ND	4.0	07/30/19 21:24	
Naphthalene	ug/L	ND	4.0	07/30/19 21:24	
o-Xylene	ug/L	ND	1.0	07/30/19 21:24	
Tetrachloroethene	ug/L	ND	1.0	07/30/19 21:24	
Toluene	ug/L	ND	1.0	07/30/19 21:24	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/30/19 21:24	
trans-1,3-Dichloropropene	ug/L	ND	4.0	07/30/19 21:24	
Trichloroethene	ug/L	ND	0.40	07/30/19 21:24	
Trichlorofluoromethane	ug/L	ND	1.0	07/30/19 21:24	
Vinyl chloride	ug/L	ND	0.20	07/30/19 21:24	
Xylene (Total)	ug/L	ND	3.0	07/30/19 21:24	
1,2-Dichloroethane-d4 (S)	%.	97	75-125	07/30/19 21:24	
4-Bromofluorobenzene (S)	%.	100	75-125	07/30/19 21:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

METHOD BLANK: 3362860 Matrix: Water
Associated Lab Samples: 10484467009, 10484467010, 10484467011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene-d8 (S)	%.	97	75-125	07/30/19 21:24	

LABORATORY CONTROL SAMPLE: 3362861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.4	97	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.7	99	71-128	
1,1,2-Trichloroethane	ug/L	20	19.5	97	75-125	
1,1-Dichloroethane	ug/L	20	19.5	97	75-125	
1,1-Dichloroethene	ug/L	20	19.2	96	69-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.6	98	75-125	
1,2-Dichlorobenzene	ug/L	20	19.9	100	75-125	
1,2-Dichloroethane	ug/L	20	17.4	87	71-125	
1,2-Dichloropropane	ug/L	20	19.9	99	72-125	
1,3-Dichlorobenzene	ug/L	20	19.5	97	75-125	
1,4-Dichlorobenzene	ug/L	20	19.4	97	75-125	
Benzene	ug/L	20	18.7	93	75-125	
Bromodichloromethane	ug/L	20	18.7	94	75-125	
Bromoform	ug/L	20	18.3	91	74-125	
Bromomethane	ug/L	20	23.1	116	30-150	
Carbon tetrachloride	ug/L	20	18.5	93	70-125	
Chlorobenzene	ug/L	20	19.2	96	75-125	
Chloroethane	ug/L	20	23.0	115	64-129	
Chloroform	ug/L	20	18.6	93	75-125	
Chloromethane	ug/L	20	21.3	107	67-125	
cis-1,2-Dichloroethene	ug/L	20	19.5	98	73-125	
cis-1,3-Dichloropropene	ug/L	20	19.3	97	75-125	
Dibromochloromethane	ug/L	20	19.2	96	75-125	
Dichlorodifluoromethane	ug/L	20	19.9	100	65-129	
Ethylbenzene	ug/L	20	20.3	101	75-125	
Hexachloro-1,3-butadiene	ug/L	20	19.5	97	66-137	
m&p-Xylene	ug/L	40	39.2	98	75-125	
Methyl-tert-butyl ether	ug/L	20	21.5	108	75-125	
Methylene Chloride	ug/L	20	20.3	102	72-125	
Naphthalene	ug/L	20	17.6	88	63-125	
o-Xylene	ug/L	20	20.8	104	75-125	
Tetrachloroethene	ug/L	20	19.7	98	75-125	
Toluene	ug/L	20	19.1	96	75-125	
trans-1,2-Dichloroethene	ug/L	20	19.1	95	70-125	
trans-1,3-Dichloropropene	ug/L	20	19.6	98	75-125	
Trichloroethene	ug/L	20	18.6	93	74-125	
Trichlorofluoromethane	ug/L	20	21.4	107	74-125	
Vinyl chloride	ug/L	20	23.0	115	71-125	
Xylene (Total)	ug/L	60	60.0	100	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

LABORATORY CONTROL SAMPLE: 3362861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			102	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362876 3362877

Parameter	Units	10484584007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	18.2	17.7	91	89	30-150	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.6	17.1	93	85	30-150	8	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	18.4	18.1	92	91	30-150	1	30	
1,1-Dichloroethane	ug/L	ND	20	20	18.7	17.9	93	89	30-150	4	30	
1,1-Dichloroethene	ug/L	ND	20	20	18.7	18.0	94	90	30-150	4	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	16.9	17.4	85	87	30-150	3	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.6	18.3	88	91	30-150	4	30	
1,2-Dichloroethane	ug/L	ND	20	20	15.7	15.6	78	78	30-150	1	30	
1,2-Dichloropropane	ug/L	ND	20	20	18.7	18.4	93	92	30-150	1	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.6	18.2	93	91	30-150	2	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.4	17.4	92	87	30-150	5	30	
Benzene	ug/L	ND	20	20	17.8	16.7	89	84	30-150	6	30	
Bromodichloromethane	ug/L	ND	20	20	17.9	17.8	90	89	30-150	1	30	
Bromoform	ug/L	ND	20	20	16.8	16.5	84	83	30-150	2	30	
Bromomethane	ug/L	ND	20	20	23.2	23.1	116	115	30-150	0	30	
Carbon tetrachloride	ug/L	ND	20	20	17.5	17.1	88	86	30-150	2	30	
Chlorobenzene	ug/L	ND	20	20	18.0	17.3	90	86	30-150	4	30	
Chloroethane	ug/L	ND	20	20	24.9	23.0	124	115	30-150	8	30	
Chloroform	ug/L	ND	20	20	17.5	16.4	87	82	30-150	6	30	
Chloromethane	ug/L	ND	20	20	23.5	22.5	117	113	30-150	4	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.1	17.2	91	86	30-150	5	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.7	16.9	84	84	30-145	1	30	
Dibromochloromethane	ug/L	ND	20	20	16.9	16.6	84	83	30-150	2	30	
Dichlorodifluoromethane	ug/L	ND	20	20	22.5	20.6	112	103	30-150	9	30	
Ethylbenzene	ug/L	ND	20	20	19.1	18.8	95	94	30-150	1	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	19.0	17.1	95	86	30-150	10	30	
m&p-Xylene	ug/L	ND	40	40	39.0	37.0	97	92	30-150	5	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.6	18.7	93	93	30-150	0	30	
Methylene Chloride	ug/L	ND	20	20	18.6	17.7	93	89	30-146	5	30	
Naphthalene	ug/L	ND	20	20	16.5	16.4	82	82	30-150	0	30	
o-Xylene	ug/L	ND	20	20	19.8	19.1	99	95	30-150	4	30	
Tetrachloroethene	ug/L	ND	20	20	18.7	17.4	93	87	30-150	7	30	
Toluene	ug/L	ND	20	20	18.1	17.4	91	87	30-150	4	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.3	16.1	87	80	30-150	7	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.1	17.4	91	87	30-150	4	30	
Trichloroethene	ug/L	ND	20	20	18.0	17.3	90	87	30-150	4	30	
Trichlorofluoromethane	ug/L	ND	20	20	23.5	22.1	118	111	30-150	6	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362876 3362877

Parameter	Units	10484584007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/L	ND	20	20	26.3	24.8	131	124	30-150	6	30	
Xylene (Total)	ug/L	ND	60	60	58.8	56.0	98	93	30-150	5	30	
1,2-Dichloroethane-d4 (S)	%.						101	100	75-125			
4-Bromofluorobenzene (S)	%.						99	100	75-125			
Toluene-d8 (S)	%.						99	101	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

QC Batch: 621961 Analysis Method: NWTPH-Dx
QC Batch Method: EPA Mod. 3510C Analysis Description: NWTPH-Dx GCS LV
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008, 10484467009

METHOD BLANK: 3357370 Matrix: Water
Associated Lab Samples: 10484467001, 10484467002, 10484467003, 10484467004, 10484467005, 10484467006, 10484467007, 10484467008, 10484467009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	400	07/29/19 18:08	
Motor Oil Range	ug/L	ND	400	07/29/19 18:08	
n-Triacontane (S)	%.	61	50-150	07/29/19 18:08	
o-Terphenyl (S)	%.	81	50-150	07/29/19 18:08	

LABORATORY CONTROL SAMPLE & LCSD: 3357371 3357372

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	2000	1660	1580	83	79	50-150	5	20	
Motor Oil Range	ug/L	2000	1670	1630	84	81	50-150	3	20	
n-Triacontane (S)	%.				74	63	50-150			
o-Terphenyl (S)	%.				80	76	50-150			

SAMPLE DUPLICATE: 3357373

Parameter	Units	10484467001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	ND	ND		30	
Motor Oil Range	ug/L	ND	ND		30	
n-Triacontane (S)	%.	87	76			
o-Terphenyl (S)	%.	86	78			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

QC Batch: 622931 Analysis Method: NWTPH-Dx
QC Batch Method: EPA Mod. 3510C Analysis Description: NWTPH-Dx GCS LV
Associated Lab Samples: 10484467010

METHOD BLANK: 3362426 Matrix: Water
Associated Lab Samples: 10484467010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	400	07/31/19 10:52	
Motor Oil Range	ug/L	ND	400	07/31/19 10:52	
n-Triacontane (S)	%.	84	50-150	07/31/19 10:52	
o-Terphenyl (S)	%.	84	50-150	07/31/19 10:52	

LABORATORY CONTROL SAMPLE & LCSD: 3362427 3362428

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	2000	1820	1810	91	91	50-150	0	20	
Motor Oil Range	ug/L	2000	1890	1900	94	95	50-150	1	20	
n-Triacontane (S)	%.				90	83	50-150			
o-Terphenyl (S)	%.				87	84	50-150			

SAMPLE DUPLICATE: 3362429

Parameter	Units	10484467010 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	ND	88.2J		30	P2
Motor Oil Range	ug/L	ND	135J		30	
n-Triacontane (S)	%.	82	2			S0
o-Terphenyl (S)	%.	70	83			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
H2	Extraction or preparation was conducted outside of the recognized method holding time.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
P2	Re-extraction or re-analysis could not be performed due to insufficient sample amount.
S0	Surrogate recovery outside laboratory control limits.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

METHOD CROSS REFERENCE TABLE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Parameter	Matrix	Analytical Method	Preparation Method
8260B VOC	Water	SW-846 8260B/5030B	N/A

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 47231541 P66/1300 W 12th St.Va
Pace Project No.: 10484467

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10484467001	**MW-1**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467002	**MW-2**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467003	**MW-4**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467004	**MW-5A**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467005	**MW-6**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467006	**MW-7**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467007	**MW-8**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467008	**MW-9**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467009	**MW-10**	EPA Mod. 3510C	621961	NWTPH-Dx	622797
10484467010	**Dup-1**	EPA Mod. 3510C	622931	NWTPH-Dx	623304
10484467001	**MW-1**	NWTPH-Gx	623579		
10484467002	**MW-2**	NWTPH-Gx	623579		
10484467003	**MW-4**	NWTPH-Gx	623579		
10484467004	**MW-5A**	NWTPH-Gx	623579		
10484467005	**MW-6**	NWTPH-Gx	623579		
10484467006	**MW-7**	NWTPH-Gx	623579		
10484467007	**MW-8**	NWTPH-Gx	623579		
10484467008	**MW-9**	NWTPH-Gx	623579		
10484467009	**MW-10**	NWTPH-Gx	623579		
10484467010	**Dup-1**	NWTPH-Gx	623579		
10484467011	**TB**	NWTPH-Gx	623579		
10484467001	**MW-1**	EPA 8260B	622870		
10484467002	**MW-2**	EPA 8260B	622870		
10484467003	**MW-4**	EPA 8260B	622870		
10484467004	**MW-5A**	EPA 8260B	622870		
10484467005	**MW-6**	EPA 8260B	622870		
10484467006	**MW-7**	EPA 8260B	622870		
10484467007	**MW-8**	EPA 8260B	622870		
10484467008	**MW-9**	EPA 8260B	622870		
10484467009	**MW-10**	EPA 8260B	623004		
10484467010	**Dup-1**	EPA 8260B	623004		
10484467011	**TB**	EPA 8260B	623004		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services Inc.	Report To:	Matt Davis; heather.gadwa@ghd.com	Attention:	apinvoices-340@ghd.com / Jeff Cloud
Address:	3600 Port of Tacoma Road, Suite 302	Copy To:	Jeffrey.Cloud@GHD.com	Company Name:	GHD Services Inc. - 340
	Tacoma, WA 98424		eric.maise@ghd.com ; rosemarie.borths@ghd.com	Address:	2055 Niagara Falls Blvd., Niagara Falls, NY 14304
Email To:	matthew.davis@ghd.com	Purchase Order No.		Pace Quote Reference:	
Phone:	253-302-8281 Fax	Client Project ID:	P66 / 1300 W 12th St, Vancouver 978	Pace Project Manager:	Jennifer Gross
Requested Due Date/TAT:	*10 Day (Standard)*	Project Number:	47231541	Pace Profile #:	*38225 / 1*

Regulatory Agency

State / Location: WA / Vancouver

SAMPLE ID

One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

WO# : 10484467

10484467

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: 8260 BTEX+HVOCs	NWTPHGx	NWTPHDx	Residual Chlorine (Y/N)	
1	MW-1	WT	G	7/9/19	1118				8				X					X	X	X		001
2	MW-2	WT	G	7/19/19	1247				8				X					X	X	X		002
3	MW-4	WT	G	7/19/19	1204				8				X					X	X	X		003
4	MW-5A	WT	G	7/19/19	1122				8				X					X	X	X		004
5	MW-6	WT	G	7/19/19	1100				8				X					X	X	X		005
6	MW-7	WT	G	7/19/19	1039				8				X					X	X	X		006
7	MW-8	WT	G	7/19/19	0956				8				X					X	X	X		007
8	MW-9	WT	G	7/19/19	1218				8				X					X	X	X		008
9	MW-10	WT	G	7/19/19	1310				8				X					X	X	X		009
10	DUP-1	WT	G	7/19/19	—				8				X					X	X	X		010
11	TB	WT	G	7/19/19	0830				2				X					X	X	—		011
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
11145925-2019-02 | 11145925-PH-Vancouve		7/22/19	1400	Pace	7/24/19	0840
		7-22	1700			

SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.4	Y	N	Y
	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: L. BURES

SIGNATURE of SAMPLER: DATE Signed: 7/19/19

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 09May2019 Page 1 of 1
	Document No.: **F-MN-L-213-rev.28**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** GHD Services, Inc. **Project #:** **WO#: 10484467**

PM: JMG **Due Date: 08/06/19**

CLIENT: GHD_WA

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial **See Exception** [ ]

Tracking Number: 4934 3730 5338

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No **Biological Tissue Frozen?** [ ] Yes [ ] No [X] N/A

Packing Material: [X] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other: _____ **Temp Blank?** [X] Yes [ ] No

Thermometer: [X] T1(0461) [ ] T2(1336) [ ] T3(0459) [ ] T4(0254) [ ] T5(0489) **Type of Ice:** [X] Wet [ ] Blue [ ] None [ ] Dry [ ] Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 1.3 °C **Average Corrected Temp (no temp blank only):** _____ °C **See Exceptions** [ ]

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank:** 1.4 °C

USDA Regulated Soil: [X] N/A, water sample/Other: _____ **Date/Initials of Person Examining Contents:** MKL 7-24-19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? [ ] Yes [ ] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [ ] No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	[X] Yes	[ ] No		1.
Chain of Custody Relinquished?	[X] Yes	[ ] No		2.
Sampler Name and/or Signature on COC?	[X] Yes	[ ] No	[ ] N/A	3.
Samples Arrived within Hold Time?	[X] Yes	[ ] No		4.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No		5. [ ] Fecal Coliform [ ] HPC [ ] Total Coliform/E coli [ ] BOD/cBOD [ ] Hex Chrome [ ] Turbidity [ ] Nitrate [ ] Nitrite [ ] Orthophos [ ] Other
Rush Turn Around Time Requested?	[ ] Yes	[X] No		6.
Sufficient Volume?	[X] Yes	[ ] No		7.
Correct Containers Used?	[X] Yes	[ ] No		8.
-Pace Containers Used?	[X] Yes	[ ] No		
Containers Intact?	[X] Yes	[ ] No		9.
Field Filtered Volume Received for Dissolved Tests?	[ ] Yes	[ ] No	[X] N/A	10. Is sediment visible in the dissolved container? [ ] Yes [ ] No
Is sufficient information available to reconcile the samples to the COC?	[X] Yes	[ ] No		11. **If no, write ID/ Date/Time on Container Below:** No DUP-1 included. **See Exception** [ ]
Matrix: [X] Water [ ] Soil [ ] Oil [ ] Other _____				
All containers needing acid/base preservation have been checked?	[ ] Yes	[ ] No	[X] N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	[ ] Yes	[ ] No	[X] N/A	[ ] NaOH [ ] HNO_3 [ ] H_2SO_4 [ ] Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	[X] Yes	[ ] No	[ ] N/A	Positive for Res. Chlorine? [ ] Yes [ ] No **pH Paper Lot#** **See Exception** [ ]
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	[ ] Yes	[X] No	[ ] N/A	13. ~~Three HCL trip Blanks~~ MKL 7-25-19 **See Exception** [ ]
Trip Blank Present?	[X] Yes	[ ] No	[ ] N/A	14. Three HCL trip Blanks 216702
Trip Blank Custody Seals Present?	[X] Yes	[ ] No	[ ] N/A	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Oyeyemi Odugole **Date:** 7/29/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: _____

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services Inc.	Report To:	Matt Davis; heather.gadwa@ghd.com	Attention:	apinvoices-340@ghd.com / Jeff Cloud
Address:	3600 Port of Tacoma Road, Suite 302	Copy To:	Jeffrey.Cloud@GHD.com	Company Name:	GHD Services Inc. - 340
	Tacoma, WA 98424		eric.maise@ghd.com ; rosemarie.borths@ghd.com	Address:	2055 Niagara Falls Blvd., Niagara Falls, NY 14304
Email To:	matthew.davis@ghd.com	Purchase Order No.		Pace Quote Reference:	
Phone:	253-302-8261 Fax	Client Project ID:	P66 / 1300 W 12th St, Vancouver 978	Pace Project Manager:	Jennifer Gross
Requested Due Date/TAT:	10 Day (Standard)	Project Number:	47231541	Pace Profile #:	38225 / 1

Regulatory Agency

State / Location: WA / Vancouver

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

WO# : 10484467

10484467

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	8260 BTEX+HVOCs	NWTPHGx	NWTPHDx	Residual Chlorine (Y/N)	
1	MW-1	WT	G	7/9/19	1118				8				X					Y	X	X	X		001
2	MW-2	WT	G	7/19/19	1247				8				X					Y	X	X	X		002
3	MW-4	WT	G	7/19/19	1204				8				X					Y	X	X	X		003
4	MW-5A	WT	G	7/19/19	1122				8				X					Y	X	X	X		004
5	MW-6	WT	G	7/19/19	1010				8				X					Y	X	X	X		005
6	MW-7	WT	G	7/19/19	1039				8				X					Y	X	X	X		006
7	MW-8	WT	G	7/19/19	0956				8				X					Y	X	X	X		007
8	MW-9	WT	G	7/19/19	1218				8				X					Y	X	X	X		008
9	MW-10	WT	G	7/19/19	1310				8				X					Y	X	X	X		009
10	DUP-1	WT	G	7/19/19	—				8				X					Y	X	X	X		010
11	TB	WT	G	7/19/19	0830				2				X					Y	X	Y	—		011
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
11145925-2019-02 | 11145925-PH-Vancouve		7/22/19	1400				—			
		7-22	1700	Michelle Pace	7/24/19	840	1.4	Y	N	Y
									N	

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	L. BURES					
SIGNATURE of SAMPLER:		DATE Signed: 7/19/19				

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 09May2019 Page 1 of 1
	Document No.: **F-MN-L-213-rev.28**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: GHD

Project #: **WO#: 10484467**

PM: JMG **Due Date: 08/06/19**

CLIENT: GHD_WA

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial **See Exception** ☐

Tracking Number: 7475 9398 1630

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:_____ **Temp Blank?** ☐ Yes ☐ No

Thermometer: ☐ T1(0461) ☒ T2(1336) ☐ T3(0459) ☐ T4(0254) ☐ T5(0489) **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:**_____ °C **Average Corrected Temp (no temp blank only):** 5.2 °C **See Exceptions** ☒

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank :**_____ °C

USDA Regulated Soil: (☒ N/A, water sample/Other:_____)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

Date/Initials of Person Examining Contents: CEG 7/26/19

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Volume?	☒ Yes	☐ No		7.
Correct Containers Used? -Pace Containers Used?	☒ Yes ☒ Yes	☐ No ☐ No		8.
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other_____	☒ Yes	☐ No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒ Yes	☐ No	☐ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☐
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☒ No	☐ N/A	13. **See Exception** ☐
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	14.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased):_____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted:_____ Date/Time:_____

Comments/Resolution: Sample Dup-1 (10484467-010) not received originally, submitted by client and arrived 7/26/19 08:45.

Project Manager Review: _____ **Date:** 07/29/2019

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: CMI

Pace Analytical	Document Name: SCUR Exception Form – Coolers Above 6°C	Document Revised: 08Apr2019 Page 1 of 1
	Document No.: F-MN-C-298-Rev.02	Issuing Authority: Pace Minnesota Quality Office

During sample triage, this form is to be placed in each cooler that arrives above 6.0 degrees Celsius

SCUR Exceptions: **Workorder #:**

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp
4.7	4.8	5.2
5.6	5.7	
5.9	6.0	
4.0	4.1	

Tracking Number/Temperature	

Other Issues		
Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	

Appendix E
Waste Disposal Documentation

471603

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N/A

2. Page 1 of: 1

3. Emergency Response Phone: (800) 397-7455

4. Waste Tracking Number: P66-V-070319-02

5. Generator's Name and Mailing Address:
Phillips 66
76 Broadway
Sacramento, CA 95818

Generator's Phone: (916)558-7670 Attn: Ed Stalder

Generator's Site Address (if different than mailing address):
Phillips 66 (AOC0978)
1300 W 12th St.
Vancouver, WA 98660

6. Transporter 1 Company Name: ~~DH Environmental, Inc.~~ amd 7-30-19 per Becky Blagg / WM.
U.S. EPA ID Number: ~~WAH000047817~~

7. Transporter 2 Company Name: Chemical Waste Management of the Northwest
U.S. EPA ID Number: ORD089452353

8. Designated Facility Name and Site Address:
Chemical Waste Management of the Northwest
17629 Cedar Springs Lane
Arlington, OR 97812
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1. Material Not Regulated by DOT (non-reg IDW Soil)	15 ~~17~~	DM	16765 ~~19,000~~	P	X004
2. Material Not Regulated by DOT (non-reg IDW water)	kg 8-1-19 78	DM	3735 ~~1500~~	P	X004
3.					
4.					

13. Special Handling Instructions and Additional Information
1. OR342374--LF01/STAB01
2. OR342375--STAB01

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brian Pauly on behalf of P66
Signature: [signature] on behalf of P66
Month/Day/Year: 10 11 19 (amd 7-30-19)

15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Michael Krause
Signature: [signature]
Month/Day/Year: 07 11 19

Transporter 2 Printed/Typed Name:
Signature:
Month / Day / Year

17. Discrepancy
17a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

10.1, 10.2, 11.1, 11.2 Approved to amend drum counts and weights per Scott St John/Director of Project Services/DH Environmental. kg 8-1-19

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Becky Sumner
Signature: Becky Sumner
Month/Day/Year: 7 30 19

GENERATOR · TRANSPORTER · INT'L · DESIGNATED FACILITY

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97811

SPECIAL BILLING WORKSHEET

47/603

Bill To. ☐ Generator ☐ Transporter ☐ Other _____

Generator: Phillips 66 Date: 8/1/19

Manifest Number: P66-V-070319-02 Profile #: OR342374

BIF #

Authorized By: (Customer Name & Title) Robert Mulholland/District Manager II - Haz Mat WM

Brief Description (i.e., late load, excavation, transporter assistance.) 2 drums manifested as the wrong line items. Amended manifest to have correct piece count & weights.

discrepant load $250

Man-hours (1 hr. minimum)

Manager	_____	hrs. @ $80.00=	_____
Laborer	_____	hrs. @ $45.00=	_____
Mechanic	_____	hrs. @ $60.00=	_____
Clerk	_____	hrs. @ $35.00=	_____
Customer Service	_____	hrs. @ $30.00=	_____
Receiving Technician	_____	hrs. @ $45.00=	_____
First Responder	_____	hrs. @ $60.00=	_____
		Sub-Total	_____

Equipment

Excavator	_____	hr. @ $180.00=	_____
Scraper	_____	hrs. @ $220.00=	_____
Grader	_____	hrs. @ $130.00=	_____
Backhoe	_____	hrs. @ $125.00=	_____
Truck (i.e. roll-off)	_____	hrs. @ $90.00=	_____
Forklift	_____	hrs. @ $60.00=	_____
Pickup truck	_____	hrs. @ $60.00=	_____
Loader	_____	hrs. @ $150.00=	_____
Dozer	_____	hrs. @ $180.00=	_____
Taylor	_____	hrs @ $180.00=	_____
Vacuum Truck	_____	hrs @150.00=	_____
		Sub-Total	_____

Administrative Costs

Mailing & Overnight Fees	_____	$25.00 ea Package	_____
Copies of Invoices	_____	$25.00 ea Invoice	_____
Tonnage Reports	_____	$10.00 ea Report	_____
Records Search	_____	hrs. @ $30.00=	_____
PCB/Asbestos Search	_____	hrs. @ $30.00=	_____
Rejected Load	_____	Manifest @ $100.00=	_____
Hazardous Manifest	_____	$5.00 ea Manifest	_____
NON HAZ Manifest	_____	$2.00 ea NON HAZ	_____
Priority Approval (48 hr.)	_____	$250.00 ea	_____
Rush Approval (24 hr.)	_____	$500.00 ea	_____
		Sub-Total	_____

Lab Costs

3rd Party analytical	_____	Cost + 25%	_____
Cyanide (distillation)	_____	@ $100.00=	_____
Volatiles (8260) by GC/MS	_____	@ $250.00=	_____
Semi Volatiles (8270) by GC/MS	_____	@ $300.00=	_____
PCBs	_____	@ $150.00=	_____
TCLP Metals	_____	@ $150.00=	_____
TCLP Volatiles	_____	@ $300.00=	_____
STLC Metals	_____	@ $200.00=	_____
Mercury	_____	@ $150.00=	_____
Flash Point	_____	@ $30.00=	_____
% Moisture	_____	@ $25.00=	_____
		Sub-Total	_____

Landfill

Bin Top Absorption per contract or $230.00/load	_____	Loads @ $230.00/load=	_____
	_____	> 300 gallons x $0.90 gal	_____
Minimum Charge Bulk Load	_____	$200.00 per load	_____
Digout (<1 hr)	_____	@ $125.00=	_____
		Sub-Total	_____

DSU

Storage of Discrepant drums >10 days	_____	days @ $10.00/day=	_____
Incidental Liquids in drums	_____	drums @ $145.00/drum=	_____
Liq VS Solid Drum	_____	$100.00 per drum	_____
		Sub-Total	_____

VISUAL MOISTURE CONTENT DETERMINATION UPON UNLOADING _____ %

MOISTURE CONTENT PROBE READING _____ %

FSU

Transfer and Store	_____	Loads @ $250.00/load=	_____
Washout FSU	_____	$1 gal or contracted rate	_____
Free liquid (Bulk)	_____	Loads @ $500.00/load=	_____
		Sub-Total	_____

Transportation

Scheduled/Unscheduled		S/U	
Demurrage	_____	hrs. @	_____
		Sub-Total	_____

Materials

Absorbent	_____	Cost + 20%	_____
Overpack (95 G Poly)	_____	Cost + 20%	_____
Overpack (85 G Steel)	_____	Cost + 20%	_____
Drum (55 G and Less)	_____	Cost + 20%	_____
Trivalt	_____	Cost + 20%	_____
Soil for Cover	_____	cy @ $12.00/cy=	_____
Soil to Fill In Tanks	_____	cy @ $30.00/cy=	_____
Bin Parts & Materials	_____	@ cost plus 30%=	_____
		Sub-Total	_____

MISC.

Minimum Truck Load/Call-out	_____	@ $1500.00/day=	_____
Cranes less than 20T	_____	hrs. @ $250=	_____
Cranes greater than 20T	_____	@ cost plus 30%=	_____
	_____		_____
		Sub-Total	_____

Totals $250 (Plus all applicable taxes)

POUNDS ORM 4 ADDED _____ #

POUNDS DIRT ADDED _____ #

TOTAL ADDED _____ #

INITIAL _____ DATE _____

Completed By: Nathan Reede Date: 8/1/19

Approved By:

Customer: _____ Date: _____

WM: _____ Date: _____

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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