



Transmittal

June 24, 2020

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300 Desmond Drive SE
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Ref. No.: 11145925

From: Matthew Davis

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Subject: 2019 Annual Groundwater Monitoring Report

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1	2019 Annual Groundwater Monitoring Report		

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2019 Annual Groundwater Monitoring 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 Services Inc. (GHD) prepared this report on behalf of Phillips 66 Company (P66). This annual report includes all groundwater monitoring data collected in fourth quarter 2019. Third quarter data was reported in GHD's *Site Investigation Summary Report* issued November 21, 2019

1.1 Site Information

Site Address	1300 West 12th Street, Vancouver, Washington
Site Use	Used oil collection, treatment, and resale facility
GHD Project Manager	Matthew Davis
Lead Agency	Washington Department of Ecology (Independent Cleanup)

2. Site Activities and Findings

2.1 Current Activities

Groundwater monitoring and sampling was completed by Blaine Tech Services, Inc. (BTS) according to the established monitoring program during 2019. Groundwater monitoring and sampling consisted of measuring depth to water in each well from the surveyed top of casing elevation and collecting a groundwater sample using low-flow sampling procedures. Groundwater samples were placed immediately on ice and shipped under chain of custody to an approved laboratory for analysis of the Site COCs.

GHD prepared a vicinity map (Figure 1) and a groundwater elevation and chemical concentration map (Figure 2). GHD prepared Table 1 summarizing groundwater monitoring data and laboratory analytical results. Field forms and the laboratory analytical reports are included as Appendices A and B, respectively.

2.2 Findings

Quarter/Date	4 th /October 22-23, 2019
Groundwater Flow Direction	South-Southwest
Hydraulic Gradient	0.005 foot/foot
Depth to Water	44.09 to 60.14 feet below top of well casing

Laboratory analytical results indicate no petroleum related concentrations exceeding the MTCA Method A cleanup levels in any of the wells sampled. Well MW-5A had a concentration of tetrachloroethene (PCE) at 6 µg/L, exceeding the MTCA Method A cleanup level of 5 µg/L. No



other wells exceeded the MTCA Method A cleanup level for PCE. Quarterly groundwater monitoring was discontinued following first quarter 2020 pending completion of the second phase of investigation activities.

All of Which is Respectfully Submitted,

GHD

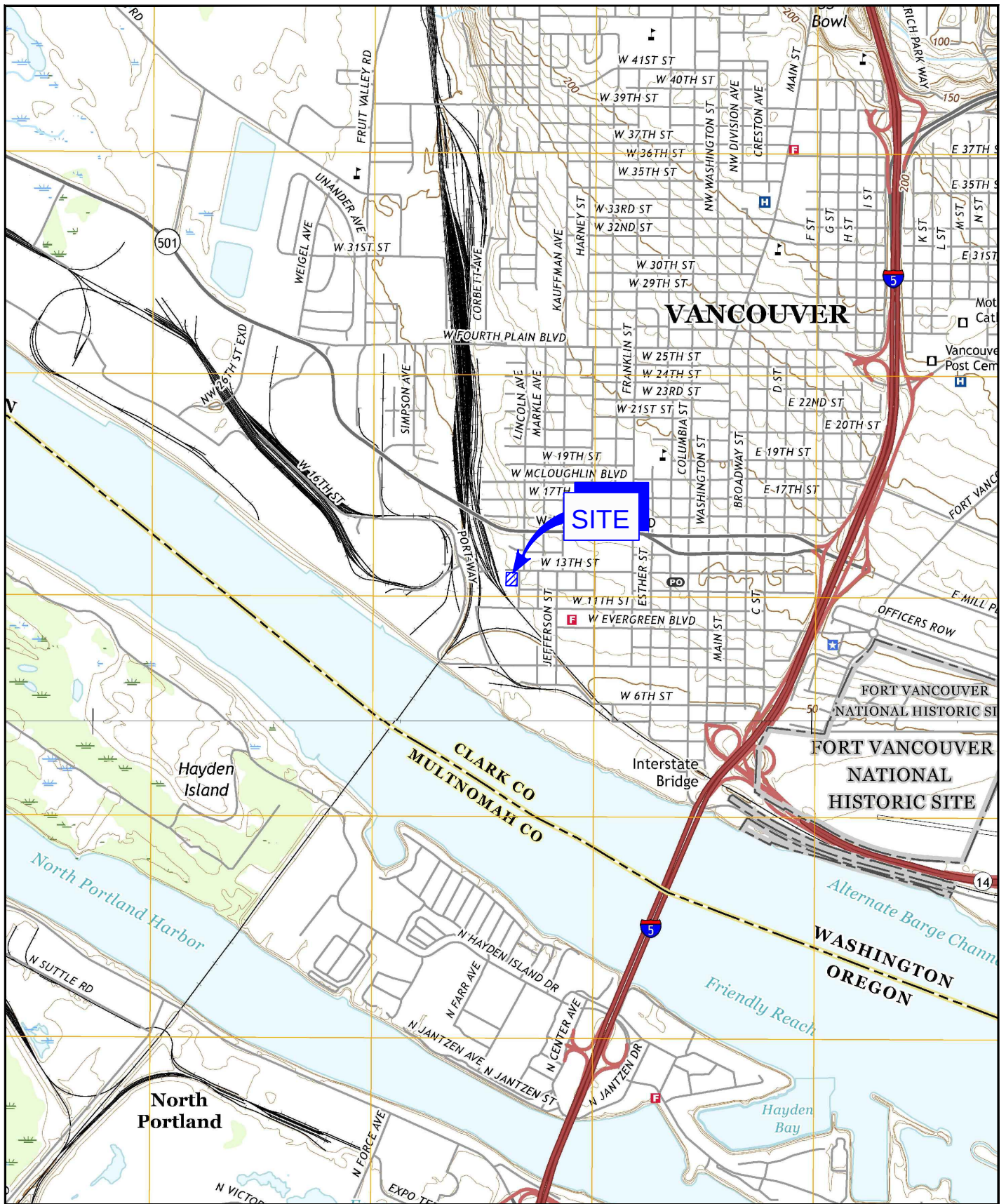


Moshghan Mansoori



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

VICINITY MAP

11145925-2RM00

Feb 27, 2020

FIGURE 1

Table

Table 1

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)	Chloroform (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	96.52	37.34	59.18	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-1	8/30/2000	96.52	44.19	52.33	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.96	--	--	--	--	--
MW-1	10/4/2000	96.52	44.75	51.77	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.98	--	<1.00	--	--	--
MW-1	1/15/2001	96.52	43.41	53.11	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.88	--	--	--	--	--
MW-1	4/23/2001	96.52	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	7/25/2001	96.52	46.17	50.35	--	--	--	--	--	--	--	--	ND	3.63	ND	ND	1.83	--	<1.00	47.8	--	--
MW-1	10/16/2001	96.52	45.38	51.14	--	--	--	--	--	--	--	--	ND	1.67	ND	ND	1.29	--	<8.59	23.1	--	--
MW-1	1/9/2002	96.52	40.90	55.62	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<1.00	2.52	--	--
MW-1	4/4/2002	96.52	42.96	53.56	--	--	--	--	--	--	--	--	ND	5,120	ND	ND	108	--	--	--	--	--
MW-1	7/8/2002	96.52	40.24	56.28	--	--	--	--	--	--	--	--	ND	476	ND	ND	28.2	--	--	--	--	--
MW-1	10/30/2002	96.52	45.25	51.27	--	--	--	--	--	--	--	--	ND	144	ND	1.46	11.4	--	--	--	--	--
MW-1	1/17/2003	96.52	43.05	53.47	--	--	--	--	--	--	--	--	ND	346	ND	ND	15.1	--	--	--	--	--
MW-1	4/4/2003	96.52	40.23	56.29	--	--	--	--	--	--	--	--	ND	85.3	ND	ND	2.93	--	--	--	--	--
MW-1	7/2/2003	96.52	42.58	53.94	--	--	--	--	--	--	--	--	ND	574	ND	ND	17.3	--	--	--	--	--
MW-1	1/28/2004	96.52	40.90	55.62	--	--	--	--	--	--	--	--	ND	326	ND	ND	ND	--	--	--	--	--
MW-1	4/26/2004	96.52	42.75	53.77	--	--	--	--	--	--	--	--	ND	338	ND	0.757	6.31	--	--	--	--	2.03
MW-1	7/23/2004	96.52	44.25	52.27	--	--	--	--	--	--	--	--	ND	127	ND	2.06	19.5	--	--	--	--	--
MW-1	11/5/2004	96.52	44.13	52.39	--	--	--	--	--	--	--	--	1.01	447	ND	1.3	8.06	--	--	--	--	2.88
MW-1	2/4/2005	96.52	43.68	52.84	--	--	--	--	--	--	--	--	<1.0	192	ND	12.6	1.08	--	--	--	--	--
MW-1	5/10/2005	96.52	41.02	55.50	--	--	--	--	--	--	--	--	<5.0	197	ND	ND	ND	--	--	--	--	--
MW-1	8/8/2005	96.52	43.72	52.80	--	--	--	--	--	--	--	--	<1.0	234	<200	1.33	12.9	--	--	--	--	4.88
MW-1	12/13/2005	96.52	43.67	52.85	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	6.0	--	--	--	--	7.59
MW-1	3/3/2006	96.52	40.78	55.74	--	--	--	--	--	--	--	--	<2.0	100	<0.8	<1.0	6.0	--	--	--	--	6.23
MW-1	6/29/2006	96.52	40.30	56.22	--	--	--	--	--	--	--	--	<2.0	18	<0.8	<1.0	10	--	--	--	--	6.04
MW-1	9/8/2006	96.52	44.40	52.12	--	--	--	--	--	--	--	--	<2.0	58	<0.8	1.0	10	--	--	--	--	6.89
MW-1	12/1/2006	96.52	41.34	55.18	--	--	--	--	--	--	--	--	<2.0	19	<0.8	<1.0	4.0	--	--	--	--	5.20
MW-1	3/1/2007	96.52	41.60	54.92	--	--	--	--	--	--	--	--	<2.0	14	<0.8	<1.0	7.0	--	--	--	--	7.35
MW-1	6/28/2007	96.52	43.10	53.42	--	--	--	--	--	--	--	--	<2	<0.5	<0.8	1	12	--	--	--	--	7.0
MW-1	2/1/2008	96.52	42.25	54.27	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	7	--	--	--	--	--
MW-1	3/20/2008	96.52	42.07	54.45	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	5	--	--	--	--	--
MW-1	6/19/2008	96.52	36.39	60.13	--	--	--	<0.5	<0.7	<0.8	<0.8	2	<2	<0.5	<0.8	<1	3	--	--	--	--	--
MW-1	9/30/2008	96.52	44.92	51.60	--	--	--	<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	96.52	44.65	51.87	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	8	--	--	--	--	--
MW-1	2/19/2009	96.52	44.19	52.33	--	--	--	<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	97.10	42.02	55.08	--	--	--	<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	97.10	44.25	52.85	--	--	--	<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	97.10	45.98	51.12	--	--	--	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	97.10	44.38	52.72	--	--	--	<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	97.10	40.20	56.90	--	<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	97.10	46.00	51.10	--	<75.8	<379	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	4.6	--	--	--	--	--

Table 1

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

	Sample	TOC Elevation	Depth to Water	GW Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2- Dichloro- ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
MW-1	12/1/2010	97.10	43.36	53.74	--	<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	97.10	40.53	56.57	--	<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	97.10	31.98	65.12	--	<88.9	<444	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<1.0	1.4	--	--	--	--	--
MW-1	9/26/2011	97.10	45.00	52.10	<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	97.10	45.15	51.95	--	<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	97.10	28.61	68.49	--	<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	97.10	38.27	58.83	--	<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	97.10	43.32	53.78	--	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	97.10	39.52	57.58	--	<28	<66	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.8	<1	1	--	--	--	<50	--
MW-1	3/5/2013	97.10	43.90	53.20	--	<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	97.10	42.38	54.72	--	<30	96	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-1	9/9/2013	97.10	45.12	51.98	--	<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	97.10	43.23	53.87	--	<29	<67	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-1	3/26/2014	97.10	41.07	56.03	--	<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	97.10	40.80	56.30	--	<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	97.10	43.89	53.21	--	<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	97.10	41.23	55.87	--	<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	97.10	--	--	<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-1	10/23/2019	52.90	45.66	7.24	<100	<476	<476	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	2.0	<1.0	---	---	---	---
MW-2	4/24/2000	96.95	37.76	59.19	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-2	8/30/2000	96.95	44.63	52.32	--	--	--	--	--	--	--	--	ND	ND	1.07	ND	4.00	--	--	--	--	--
MW-2	10/4/2000	96.95	45.26	51.69	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.37	--	<1.00	--	--	--
MW-2	1/15/2001	96.95	43.87	53.08	--	--	--	--	--	--	--	--	ND	ND	ND	ND	1.24	--	--	--	--	--
MW-2	4/23/2001	96.95	44.97	51.98	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.29	--	<1.00	6.00	--	--
MW-2	7/25/2001	96.95	46.65	50.30	--	--	--	--	--	--	--	--	ND	ND	ND	ND	6.74	--	<1.00	73.3	--	--
MW-2	10/16/2001	96.95	45.72	51.23	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.26	--	<1.00	15.7	--	--
MW-2	1/9/2002	96.95	41.34	55.61	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.33	--	<1.00	7.57	--	--
MW-2	4/4/2002	96.95	43.42	53.53	--	--	--	--	--	--	--	--	ND	1.54	ND	ND	3.78	--	--	--	--	--
MW-2	7/8/2002	96.95	40.69	56.26	--	--	--	--	--	--	--	--	ND	ND	ND	1.48	6.88	--	--	--	--	--
MW-2	10/30/2002	96.95	45.74	51.21	--	--	--	--	--	--	--	--	ND	ND	ND	7.1	<5	--	--	--	--	--
MW-2	1/17/2003	96.95	43.49	53.46	--	--	--	--	--	--	--	--	ND	1.03	ND	1.22	8.83	--	--	--	--	--
MW-2	4/4/2003	96.95	40.70	56.25	--	--	--	--	--	--	--	--	ND	11.8	ND	ND	5.34	--	--	--	--	--
MW-2	7/2/2003	96.95	43.02	53.93	--	--	--	--	--	--	--	--	ND	3.33	ND	1.55	8.91	--	--	--	--	--
MW-2	1/28/2004	96.95	41.35	55.60	--	--	--	--	--	--	--	--	ND	40.4	ND	2.1	9.4	--	--	--	--	--
MW-2	4/26/2004	96.95	43.21	53.74	--	--	--	--	--	--	--	--	ND	16.1	0.563	2.53	12.5	--	--	--	--	1.91
MW-2	7/23/2004	96.95	44.70	52.25	--	--	--	--	--	--	--	--	ND	7.24	0.899	3.58	18.5	--	--	--	--	--
MW-2	11/5/2004	96.95	44.60	52.35	--	--	--	--	--	--	--	--	ND	2.67	ND	2.74	10.8	--	--	--	--	2.83
MW-2	2/4/2005	96.95	44.13	52.82	--	--	--	--	--	--	--	--	<1.0	2.78	ND	3.20	17	--	--	--	--	--
MW-2	5/10/2005	96.95	41.42	55.53	--	--	--	--	--	--	--	--	<5.0	ND	ND	ND	4.84	--	--	--	--	--
MW-2	8/8/2005	96.95	44.16	52.79	--	--	--	--	--	--	--	--	<1.0	29.2	<200	3.26	15.6	--	--	--	--	3.84
MW-2	12/13/2005	96.95	44.14	52.81	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	1.0	9.0	--	--	--	--	7.36

Table 1

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

	Sample	TOC Elevation	Depth to Water	GW Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2- Dichloro- ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
MW-2	3/3/2006	96.95	41.22	55.73	--	--	--	--	--	--	--	--	<2.0	7.0	<0.8	2.0	8.0	--	--	--	--	6.3
MW-2	6/29/2006	96.95	40.78	56.17	--	--	--	--	--	--	--	--	<2.0	12	<0.8	2.0	13	--	--	--	--	6.2
MW-2	9/8/2006	96.95	42.82	54.13	--	--	--	--	--	--	--	--	<2.0	120	<0.8	4.0	20	--	--	--	--	5.5
MW-2	12/1/2006	96.95	41.81	55.14	--	--	--	--	--	--	--	--	<2.0	5.0	<0.8	<1.0	8.0	--	--	--	--	4.95
MW-2	3/1/2007	96.95	42.08	54.87	--	--	--	--	--	--	--	--	<2.0	23.0	<0.8	2.0	11.0	--	--	--	--	5.7
MW-2	6/28/2007	96.95	43.64	53.31	--	--	--	--	--	--	--	--	<2	35	<0.8	2	13	--	--	--	--	6.40
MW-2	2/1/2008	96.95	42.70	54.25	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	7	--	--	--	--	--
MW-2	3/20/2008	96.95	42.50	54.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/19/2008	96.95	36.82	60.13	--	--	--	<0.5	<0.7	<0.8	<0.8	3	<2	<0.5	<0.8	<1	7	--	--	--	--	--
MW-2	9/30/2008	96.95	45.30	51.65	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.9	11	--	--	--	--	--
MW-2	11/7/2008	96.95	45.10	51.85	--	--	--	<0.5	<0.7	<0.8	<0.8	2	<2	<0.5	<0.8	<1	8	--	--	--	--	--
MW-2	2/19/2009	96.95	45.60	51.35	--	--	--	<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	96.95	41.82	55.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	7/30/2009	96.95	44.00	52.95	--	--	--	<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	96.95	45.77	51.18	--	--	--	<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	96.95	44.15	52.80	--	--	--	<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	96.95	40.06	56.89	--	<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	96.95	45.82	51.13	--	<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	96.95	43.15	53.80	--	<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	96.95	40.33	56.62	--	<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	96.95	31.87	65.08	--	<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	96.95	44.79	52.16	<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	96.95	45.11	51.84	--	34	<67	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	3/23/2012	96.95	28.49	68.46	--	<28	<66	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.8	<1	1	--	--	--	<50	--
MW-2	6/18/2012	96.95	38.09	58.86	--	<28	<66	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-2	8/28/2012	96.95	43.13	53.82	--	49	<66	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	12/17/2012	96.95	39.39	57.56	--	<29	<68	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.8	<1	2	--	--	--	<50	--
MW-2	3/5/2013	96.95	43.66	53.29	--	<31	<73	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	6/21/2013	96.95	42.20	54.75	--	39	140	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.8	<1	3	--	--	--	<50	--
MW-2	9/9/2013	96.95	44.96	51.99	--	60	87	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-2	12/19/2013	96.95	44.10	52.85	--	<29	<67	<0.5	<0.5	<0.5	<0.5	3	<2	<0.5	<0.8	<1	3	--	--	--	<50	--
MW-2	3/26/2014	96.95	40.80	56.15	--	<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	96.95	40.60	56.35	--	<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	96.95	43.56	53.39	--	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	96.95	41.01	55.94	--	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	96.95	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	2.1	--	--	--	--	--
MW-2	7/19/2019	51.52	43.92	7.60	<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	10/22/2019	52.69	45.22	7.47	<100	<476	<476	<1.0	<1.0	<1.0	<3.0	1.7	<4.0	<1.0	<1.0	<0.40	2.1	<1.0	---	---	---	---
MW-4	9/22/1999	95.8	--	--	<80	995*	1,750*	<1	<1	<1	<3	--	--	--	2.01	<1	15.1	--	--	15.5	--	--
MW-4	8/30/2000	95.80	43.50	52.30	--	--	--	--	--	--	--	--	ND	ND	ND	ND	12.6	--	--	--	--	--
MW-4	10/4/2000	95.80	44.07	51.73	--	--	--	--	--	--	--	--	ND	ND	ND	ND	12.8	--	1.22	--	--	--
MW-4	1/15/2001	95.80	42.69	53.11	--	--	--	--	--	--	--	--	ND	ND	ND	ND	5.19	--	--	--	--	--

Table 1

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

	Sample	TOC Elevation	Depth to Water	GW Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2- Dichloro- ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
MW-4	4/23/2001	95.80	43.87	51.93	--	--	--	--	--	--	--	--	ND	ND	ND	ND	9.02	--	<1.00	2.38	--	--
MW-4	7/25/2001	95.80	45.43	50.37	--	--	--	--	--	--	--	--	ND	ND	ND	ND	7.92	--	<1.00	62.0	--	--
MW-4	10/16/2001	95.80	44.59	51.21	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.8	--	<1.00	10.8	--	--
MW-4	1/9/2002	95.80	40.17	55.63	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.21	--	<1.00	13.9	--	--
MW-4	4/4/2002	95.80	43.32	52.48	--	--	--	--	--	--	--	--	ND	8.58	2.87	15.4	45.5	--	--	--	--	--
MW-4	7/8/2002	95.80	39.53	56.27	--	--	--	--	--	--	--	--	ND	22.7	1.83	9.59	22.2	--	--	--	--	--
MW-4	10/30/2002	95.80	44.53	51.27	--	--	--	--	--	--	--	--	ND	1,090	ND	35	76.6	--	--	--	--	--
MW-4	1/17/2003	95.80	42.32	53.48	--	--	--	--	--	--	--	--	ND	2,960	ND	27.2	84.8	--	--	--	--	--
MW-4	4/4/2003	95.80	39.53	56.27	--	--	--	--	--	--	--	--	ND	779	ND	12.2	48.2	--	--	--	--	--
MW-4	7/2/2003	95.80	41.90	53.90	--	--	--	--	--	--	--	--	ND	397	2.38	11.6	58.2	--	--	--	--	--
MW-4	1/28/2004	95.80	40.20	55.60	--	--	--	--	--	--	--	--	ND	289	ND	11.2	63.9	--	--	--	--	--
MW-4	4/26/2004	95.80	42.05	53.75	--	--	--	--	--	--	--	--	ND	362	1.62	6.86	49.6	--	--	--	--	2.11
MW-4	7/23/2004	95.80	43.61	52.19	--	--	--	--	--	--	--	--	ND	86.1	1.7	4.97	48.4	--	--	--	--	--
MW-4	11/5/2004	95.80	43.49	52.31	--	--	--	--	--	--	--	--	ND	59.8	2.13	6.14	45.5	--	--	--	--	3.18
MW-4	2/4/2005	95.80	42.96	52.84	--	--	--	--	--	--	--	--	<1.0	169	2.14	5.15	46.8	--	--	--	--	--
MW-4	5/10/2005	95.80	40.29	55.51	--	--	--	--	--	--	--	--	<5.0	4.86	ND	ND	4.91	--	--	--	--	--
MW-4	8/8/2005	95.80	43.00	52.80	--	--	--	--	--	--	--	--	<1.0	139	1.85	5.3	44.8	--	--	--	--	1.94
MW-4	12/13/2005	95.80	42.97	52.83	--	--	--	--	--	--	--	--	<2.0	110	0.9	2.0	17	--	--	--	--	6.07
MW-4	3/3/2006	95.80	40.02	55.78	--	--	--	--	--	--	--	--	<2.0	70	<0.8	2.0	11	--	--	--	--	4.89
MW-4	6/29/2006	95.80	39.63	56.17	--	--	--	--	--	--	--	--	<2.0	110	<0.8	3.0	23	--	--	--	--	4.90
MW-4	9/8/2006	95.80	43.66	52.14	--	--	--	--	--	--	--	--	<2.0	270	1	5.0	35	--	--	--	--	4.30
MW-4	12/1/2006	95.80	40.65	55.15	--	--	--	--	--	--	--	--	<2.0	160	<0.8	2.0	18	--	--	--	--	3.80
MW-4	3/1/2007	95.80	40.90	54.90	--	--	--	--	--	--	--	--	<2.0	180	<0.8	2.0	25	--	--	--	--	4.65
MW-4	6/28/2007	95.80	42.48	53.32	--	--	--	--	--	--	--	--	<2	2	<0.8	2	33	--	--	--	--	3.5
MW-4	2/1/2008	95.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	3/20/2008	95.80	41.34	54.46	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	1	11	--	--	--	--	--
MW-4	6/19/2008	95.80	35.66	60.14	--	--	--	<0.5	<0.7	<0.8	<0.8	0.9	<2	<0.5	<0.8	<1	9	--	--	--	--	--
MW-4	9/30/2008	95.80	44.15	51.65	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.2	15	--	--	--	--	--
MW-4	11/7/2008	95.80	43.94	51.86	--	--	--	<0.5	<0.7	<0.20	<0.8	<0.8	<2	<0.5	<0.8	1	16	--	--	--	--	--
MW-4	2/19/2009	95.80	43.54	52.26	--	--	--	<0.12	<0.21	<0.20	<0.27	0.19	<1.0	0.89	0.33	0.98	26	--	--	--	--	--
MW-4	4/21/2009	95.80	40.65	55.15	--	--	--	<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	95.80	42.85	52.95	--	--	--	<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	95.80	44.61	51.19	--	--	--	<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	95.80	43.02	52.78	--	--	--	<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	95.80	38.90	56.90	--	<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	95.80	44.65	51.15	--	<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	95.80	42.00	53.80	--	<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	95.80	39.16	56.64	--	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	95.80	31.25	64.55	--	<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	95.80	43.63	52.17	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	95.80	43.82	51.98	--	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	95.80	27.33	68.47	--	80	290	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	4	--	--	--	<50	--
MW-4	6/18/2012	95.80	39.16	56.64	--	100	330	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	5	--	--	--	<50	--

Table 1

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Former Unocal Facility
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		TOC	Depth to	GW				Benzene	Toluene	Ethyl-	Total	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2-Dichloro-ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
		Elevation	Water	Elevation	TPHg	TPHd	TPHo			benzene	Xylenes											
MW-4	8/28/2012	95.80	42.01	53.79	--	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	95.80	38.17	57.63	--	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	95.80	42.52	53.28	--	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	95.80	40.98	54.82	--	540	850	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	9	--	--	--	<50	--
MW-4	9/9/2013	95.80	42.89	52.91	--	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	95.80	42.86	52.94	--	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	95.80	39.65	56.15	--	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	95.80	39.48	56.32	--	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	95.80	42.55	53.25	--	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	95.80	40.05	55.75	--	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	95.80	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	4.1	--	--	--	--	--
MW-4	7/19/2019	52.15	42.73	9.42	<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-4	10/22/2019	51.52	44.09	7.43	<100	<500	<500	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	4.6	<1.0	---	---	---	---
MW-4 Dup	10/22/2019	51.52	44.09	7.43	<100	---	---	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	4.4	<1.0	---	---	---	---
MW_5	9/22/1999	96.47	--	--	<80	432*	632*	<1	<1	<1	<3	--	--	--	3.67	2.53	23.6	--	--	27	--	--
MW-5	8/30/2000	96.47	44.18	52.29	--	--	--	--	--	--	--	--	ND	ND	2.0	1.56	25.6	--	--	--	--	--
MW-5	10/4/2000	96.47	44.72	51.75	--	--	--	--	--	--	--	--	ND	ND	ND	1.73	16.9	--	<1.00	--	--	--
MW-5	1/15/2001	96.47	43.35	53.12	--	--	--	--	--	--	--	--	ND	ND	ND	ND	7.37	--	--	--	--	--
MW-5	4/23/2001	96.47	44.52	51.95	--	--	--	--	--	--	--	--	ND	ND	ND	ND	9.21	--	<1.00	1.74	--	--
MW-5	7/25/2001	96.47	46.11	50.36	--	--	--	--	--	--	--	--	ND	ND	ND	1.42	22.9	--	<1.00	12.3	--	--
MW-5	10/16/2001	96.47	45.28	51.19	--	--	--	--	--	--	--	--	ND	ND	ND	1.29	18	--	<1.00	6.02	--	--
MW-5	1/9/2002	96.47	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	4/4/2002	96.47	42.95	53.52	--	--	--	--	--	--	--	--	ND	ND	2.78	15.1	105	--	--	--	--	--
MW-5	7/8/2002	96.47	40.22	56.25	--	--	--	--	--	--	--	--	ND	ND	1.48	5.6	57.6	--	--	--	--	--
MW-5	10/30/2002	96.47	45.15	51.32	--	--	--	--	--	--	--	--	ND	1.37	2.75	14.8	101	--	--	--	--	--
MW-5A	1/17/2003	96.46	42.93	53.53	--	--	--	--	--	--	--	--	ND	15.1	2.29	10.3	79	--	--	--	--	--
MW-5A	4/4/2003	96.46	40.18	56.28	--	--	--	--	--	--	--	--	ND	67	ND	1.91	17.1	--	--	--	--	--
MW-5A	7/2/2003	96.46	42.55	53.91	--	--	--	--	--	--	--	--	ND	35.7	2.2	9.8	78.1	--	--	--	--	--
MW-5A	1/28/2004	96.46	40.83	55.63	--	--	--	--	--	--	--	--	ND	449	ND	ND	31.4	--	--	--	--	--
MW-5A	4/26/2004	96.46	42.68	53.78	--	--	--	--	--	--	--	--	ND	164	3.9	7.43	68	--	--	--	--	2.89
MW-5A	7/23/2004	96.46	44.21	52.25	--	--	--	--	--	--	--	--	ND	45	5.07	9.93	79.3	--	--	--	--	--
MW-5A	11/5/2004	96.46	44.06	52.40	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.98	--	--	--	--	4.89
MW-5A	2/4/2005	96.46	43.60	52.86	--	--	--	--	--	--	--	--	<1.0	26	2.71	5.47	58.8	--	--	--	--	--
MW-5A	5/10/2005	96.46	40.94	55.52	--	--	--	--	--	--	--	--	<5.0	214	ND	ND	21.2	--	--	--	--	--
MW-5A	8/8/2005	96.46	43.64	52.82	--	--	--	--	--	--	--	--	<1.0	89	2.3	5.8	59.4	--	--	--	--	4.62
MW-5A	12/13/2005	96.46	43.60	52.86	--	--	--	--	--	--	--	--	<2.0	95	1.0	3.0	26	--	--	--	--	5.82
MW-5A	3/3/2006	96.46	40.71	55.75	--	--	--	--	--	--	--	--	<2.0	110	0.8	2.0	25	--	--	--	--	3.09
MW-5A	6/29/2006	96.46	40.25	56.21	--	--	--	--	--	--	--	--	<2.0	130	1.0	3.0	37	--	--	--	--	4.15
MW-5A	9/8/2006	96.46	44.30	52.16	--	--	--	--	--	--	--	--	<2.0	16	2.0	6.0	66	--	--	--	--	3.30
MW-5A	12/1/2006	96.46	41.29	55.17	--	--	--	--	--	--	--	--	<2.0	12	<0.8	2.0	25	--	--	--	--	4.10
MW-5A	3/1/2007	96.46	41.54	54.92	--	--	--	--	--	--	--	--	<2.0	26	0.9	2.0	38	--	--	--	--	5.50

Table 1

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

	Sample	TOC Elevation	Depth to Water	GW Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2- Dichloro- ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
MW-5A	6/28/2007	96.46	43.12	53.34	--	--	--	--	--	--	--	--	<2	1	<0.8	3	40	--	--	--	--	3.5
MW-5A	2/1/2008	96.46	42.19	54.27	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	1	32	--	--	--	--	--
MW-5A	3/20/2008	96.46	42.00	54.46	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	2	28	--	--	--	--	--
MW-5A	6/19/2008	96.46	36.25	60.21	--	--	--	<0.5	<0.7	<0.8	<0.8	1	<2	<0.5	<0.8	<1	9	--	--	--	--	--
MW-5A	9/30/2008	96.46	44.80	51.66	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.5	26	--	--	--	--	--
MW-5A	11/7/2008	96.46	44.62	51.84	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	1.0	26	--	--	--	--	--
MW-5A	2/19/2009	96.46	44.15	52.31	--	--	--	<0.12	<0.21	<0.20	<0.27	3.1	<1.0	0.23	0.26	0.97	26	--	--	--	--	--
MW-5A	4/21/2009	96.46	41.31	55.15	--	--	--	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	96.46	43.50	52.96	--	--	--	<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	96.46	45.22	51.24	--	--	--	<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	96.46	43.65	52.81	--	--	--	<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	96.46	39.59	56.87	--	<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	96.46	45.29	51.17	--	<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	96.46	42.59	53.87	--	<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	96.46	39.81	56.65	--	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	96.46	30.62	65.84	--	<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	96.46	44.30	52.16	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	96.46	44.37	52.09	--	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	96.46	27.98	68.48	--	160	380	<0.5	<0.5	<0.5	<0.5	1	<2	<0.5	<0.8	<1	3	--	--	--	<50	--
MW-5A	6/18/2012	96.46	37.57	58.89	--	180	720	<0.5	<0.5	<0.5	<0.5	2	<2	<0.5	<0.8	<1	7	--	--	--	<50	--
MW-5A	8/28/2012	96.46	42.61	53.85	--	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	96.46	38.82	57.64	--	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	96.46	43.12	53.34	--	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	96.46	41.60	54.86	--	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	96.46	43.38	53.08	--	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	96.46	42.46	54.00	--	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	96.46	40.21	56.25	--	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	96.46	39.98	56.48	--	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	96.46	43.08	53.38	--	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	96.46	40.56	55.90	--	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	96.46	--	--	<100	<400	<400	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	6.2	--	--	--	--	--
MW-5A	7/19/2019	66.49	43.47	23.02	<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-5A	10/22/2019	52.15	44.68	7.47	<100	<476	<476	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	6.0	<1.0	---	---	---	---
MW-6	9/22/1999	110.19	--	--	<80	<250	<500	<1	<1	<1	<3	--	--	--	<1	<1	<1	--	--	11.7	--	--
MW-6	8/30/2000	110.19	57.87	52.32	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-6	10/4/2000	110.19	58.42	51.77	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<1.00	--	--	--
MW-6	1/15/2001	110.19	57.04	53.15	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-6	4/23/2001	110.19	58.18	52.01	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<1.00	3.47	--	--
MW-6	7/25/2001	110.19	59.80	50.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/16/2001	110.19	59.02	51.17	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--
MW-6	1/9/2002	110.19	54.58	55.61	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	<8.30	7.14	--	--
MW-6	4/4/2002	110.19	56.64	53.55	--	--	--	--	--	--	--	--	ND	ND	ND	ND	5.84	--	<1.00	4.61	--	--

Table 1

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

	Sample	TOC Elevation	Depth to Water	GW Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2- Dichloro- ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
MW-6	7/8/2002	110.19	53.90	56.29	--	--	--	--	--	--	--	--	ND	ND	ND	ND	3.8	--	--	--	--	--
MW-6	10/30/2002	110.19	58.90	51.29	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.26	--	--	--	--	--
MW-6	1/17/2003	110.19	56.69	53.50	--	--	--	--	--	--	--	--	ND	ND	ND	ND	4.56	--	--	--	--	--
MW-6	4/4/2003	110.19	53.90	56.29	--	--	--	--	--	--	--	--	ND	1.17	ND	ND	2.64	--	--	--	--	--
MW-6	7/2/2003	110.19	56.24	53.95	--	--	--	--	--	--	--	--	ND	ND	ND	ND	4.26	--	--	--	--	--
MW-6	1/28/2004	110.19	54.56	55.63	--	--	--	--	--	--	--	--	ND	ND	ND	ND	2.39	--	--	--	--	--
MW-6	4/26/2004	110.19	56.38	53.81	--	--	--	--	--	--	--	--	ND	ND	ND	ND	14.9	--	--	--	--	1.83
MW-6	7/23/2004	110.19	58.01	52.18	--	--	--	--	--	--	--	--	ND	ND	ND	ND	7.26	--	--	--	--	--
MW-6	11/5/2004	110.19	57.76	52.43	--	--	--	--	--	--	--	--	ND	332	ND	3.05	17.7	--	--	--	--	3.08
MW-6	2/4/2005	110.19	57.34	52.85	--	--	--	--	--	--	--	--	<1.0	ND	ND	ND	8.55	--	--	--	--	--
MW-6	5/10/2005	110.19	54.70	55.49	--	--	--	--	--	--	--	--	<5.0	ND	ND	ND	1.53	--	--	--	--	--
MW-6	8/8/2005	110.19	57.40	52.79	--	--	--	--	--	--	--	--	<1.0	<1	<200	<5.0	5.48	--	--	--	--	3.71
MW-6	12/13/2005	110.19	57.30	52.89	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	2.0	--	--	--	--	7.4
MW-6	3/3/2006	110.19	54.45	55.74	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	6.0	--	--	--	--	6.48
MW-6	6/29/2006	110.19	53.94	56.25	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	11	--	--	--	--	6.95
MW-6	9/8/2006	110.19	58.09	52.10	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	3.0	--	--	--	--	7.10
MW-6	12/1/2006	110.19	55.00	55.19	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	2.0	--	--	--	--	6.90
MW-6	3/1/2007	110.19	55.25	54.94	--	--	--	--	--	--	--	--	<2.0	<0.5	<0.8	<1.0	6.0	--	--	--	--	7.75
MW-6	6/28/2007	110.19	56.77	53.42	--	--	--	--	--	--	--	--	<2	<0.5	<0.8	<1	2	--	--	--	--	6.70
MW-6	2/1/2008	110.19	55.90	54.29	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	4	--	--	--	--	--
MW-6	3/20/2008	110.19	55.75	54.44	--	--	--	<0.5	<0.7	<0.8	<0.8	--	<2	<0.5	<0.8	<1	3	--	--	--	--	--
MW-6	6/19/2008	110.19	50.07	60.12	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	1	--	--	--	--	--
MW-6	9/30/2008	110.19	58.60	51.59	--	--	--	<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	110.19	58.30	51.89	--	--	--	<0.5	<0.7	<0.8	<0.8	<0.8	<2	<0.5	<0.8	<1	0.9	--	--	--	--	--
MW-6	2/19/2009	110.19	57.87	52.32	--	--	--	<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	110.19	55.04	55.15	--	--	--	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	110.19	57.25	52.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/27/2009	110.19	58.95	51.24	--	--	--	<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	110.19	57.40	52.79	--	--	--	<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	110.19	53.33	56.86	--	<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	110.19	59.01	51.18	--	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	110.19	56.39	53.80	--	<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	110.19	53.53	56.66	--	<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	110.19	45.00	65.19	--	<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	110.19	58.01	52.18	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	110.19	58.09	52.10	--	<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	110.19	51.73	58.46	--	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	110.19	51.33	58.86	--	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	110.19	56.33	53.86	--	<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	110.19	52.55	57.64	--	<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	110.19	56.90	53.29	--	<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	110.19	55.40	54.79	--	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	110.19	58.05	52.14	--	<28	<66	<0.5	<0.5	<0.5	<0.5	<0.8	<2	<0.5	<0.8	<1	1	--	--	--	<50	--

Table 1

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

		TOC	Depth to	GW						Ethyl-	Total							cis-1,2-				
	Sample	Elevation	Water	Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	benzene	Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	Dichloro-	Dissolved	Total Lead	Ethanol	Dissolved
																		ethene	Lead			Oxygen
MW-6	12/19/2013	110.19	57.23	52.96	--	<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	110.19	53.98	56.21	--	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	110.19	53.77	56.42	--	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	110.19	57.82	52.37	--	<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	110.19	54.33	55.86	--	<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	110.19	--	--	<100	<430	<430	<1	<1	<1	<3	<1	<4	<1	<1	<0.4	<1	--	--	--	--	--
MW-6	7/19/2019	67.12	57.15	9.97	<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-6	10/23/2019	66.49	58.62	7.87	<100	<500	<500	<1.0	<1.0	<1.0	<3.0	<1.0	<4.0	<1.0	<1.0	<0.40	<1.0	<1.0	---	---	---	---
MW-7	7/19/2019	67.63	58.42	9.21	<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-7	10/22/2019	67.12	59.68	7.44	<100	<385	<385	<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	52.66	58.87	-6.21	<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-8	10/22/2019	67.63	60.14	7.49	<100	<455	<455	<1.0	<1.0	<1.0	<3.0	1.0	<4.0	<1.0	<1.0	<0.40	<1.0	<1.0	---	---	---	---
MW-9	7/19/2019	52.94	43.91	9.03	<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-9	10/23/2019	52.66	45.45	7.21	<100	<588	<588	<1.0	<1.0	<1.0	<3.0	2.5	<4.0	<1.0	<1.0	<0.40	2.1	<1.0	---	---	---	---
MW-10	7/19/2019	52.69	44.21	8.48	<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	---	---	---	---
MW-10	10/23/2019	52.94	45.70	7.24	<100	<526	<526	<1.0	<1.0	<1.0	<3.0	1.9	<4.0	<1.0	<1.0	<0.40	1.8	<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

Table 1

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

Sample	TOC Elevation	Depth to Water	GW Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chloroform	Chloroform	MTBE	1,1,1-TCA	TCE	PCE	cis-1,2- Dichloro- ethene	Dissolved Lead	Total Lead	Ethanol	Dissolved Oxygen
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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

Field Forms

WELL GAUGING DATA

Project # 191022-HP1 Date 10/22/19 Client GHD

Site 1300 W. 12th St., Vancouver, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0920	2					45.66	48.60	↓	
MW-2	1432	2					45.22	48.46		
MW-4	1320	2					44.09	49.13		
MW-5A	1359	2					44.68	49.22		
MW-6	0955	2					58.62	64.67		
MW-7	1119	2					59.68	69.92		
MW-8	1039	2					60.14	69.72		
MW-9	1032	2					45.45	47.83		
MW-10	0845	2					45.70	48.70		

LOW FLOW WELL MONITORING DATA SHEET

Project #: 141022-HP1	Client: GHD
Sampler: HP	Gauging Date: 10/23/19
Well I.D.: mw-1	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 48.60	Depth to Water (ft.): 45.66
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: 451 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 0922 Flow Rate: 200 ml/min Pump Depth: 47'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0925	13.21	5.47	185	71000	10.31	29.7	600	45.66
0928	12.86	6.21	257	71000	9.62	30.8	1200	45.66
0931	12.55	6.24	257	71000	9.02	35.8	1800	45.66
0934	12.49	6.34	257	71000	8.90	35.9	2400	45.66
0937	12.42	6.36	259	71000	8.81	36.6	3000	45.66
0940	12.36	6.37	263	71000	8.72	38.6	3600	45.66

Did well dewater? Yes ☒ No	Amount actually evacuated: 3.62
Sampling Time: 0941	Sampling Date: 10/23/19
Sample I.D.: mw-1	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see c.o.c.
Equipment Blank I.D.: @	Duplicate I.D.: Time

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022-HPI	Client: GHD
Sampler: HP	Gauging Date: 10/22/19
Well I.D.: mw-2	Well Diameter (in.): ② 3 4 6 8 ____
Total Well Depth (ft.): 48.96	Depth to Water (ft.): 45.22
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1434 Flow Rate: 200 mL/min Pump Depth: 48'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1437	16.50	6.76	229	588	8.82	79.5	600	45.24
1440	17.44	6.35	231	45	8.43	71.0	1200	45.24
1443	17.64	6.29	224	12	8.42	67.8	1800	45.24
1446	17.65	6.30	223	8	8.41	66.0	2400	45.24
1449	17.63	6.31	222	8	8.44	65.4	3000	45.24
1452	17.63	6.32	221	8	8.43	65.0	3600	45.24

Did well dewater? Yes ☒ No		Amount actually evacuated: 3.6 L
Sampling Time: 1453		Sampling Date: 10/22/19
Sample I.D.: mw-2		Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: see C.O.C.
Equipment Blank I.D.: @	Duplicate I.D.:	

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022-HF1	Client: GHD
Sampler: HP	Gauging Date: 10/22/19
Well I.D.: mw-4	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 49.13	Depth to Water (ft.): 44.09
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVO Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1322 Flow Rate: 200 mL/min Pump Depth: 47'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1325	14.90	6.37	261	218	9.01	30.8	600	44.09
1328	14.54	5.88	264	70	7.73	61.1	1200	44.09
1331	14.49	5.86	264	44	7.62	65.4	1800	44.09
1334	14.48	5.86	264	39	7.55	66.5	2400	44.09
1337	14.47	5.88	264	42	7.51	66.6	3000	44.09
1340	14.50	5.90	264	38	7.52	66.8	3600	44.09

Did well dewater? Yes ☒ No	Amount actually evacuated: 3.6 L
Sampling Time: 1341	Sampling Date: 10/22/19
Sample I.D.: mw-4	Laboratory: Paive
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see C.O.C.
Equipment Blank I.D.: @	Duplicate I.D.: DUP-1 @ 1200

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022-HF1	Client: GHD
Sampler: HP	Gauging Date: 10/22/19
Well I.D.: mw-SA	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 44.22	Depth to Water (ft.): 44.68
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1400 Flow Rate: 200 mL/min Pump Depth: 47'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1403	15.15	6.56	217	55	9.65	63.7	600	44.68
1406	14.77	6.30	218	65	7.46	70.0	1200	44.68
1409	14.44	6.08	219	39	7.53	75.3	1800	44.68
1412	14.38	6.06	220	8	7.65	74.2	2400	44.71
1415	14.37	6.10	221	7	7.72	72.6	3000	44.71
1418	14.33	6.14	221	8	7.74	64.6	3600	44.71
1421	14.31	6.15	221	8	7.79	68.4	4200	44.71

Did well dewater? Yes ☒ No	Amount actually evacuated: 4.2L
Sampling Time: 1422	Sampling Date: 10/22/19
Sample I.D.: mw-SA	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see I.O.C.
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022-HR1	Client: GHD
Sampler: MF	Gauging Date: 10/23/19
Well I.D.: mw-b	Well Diameter (in.): ☒ 3 ☐ 4 ☐ 6 ☐ 8 _____
Total Well Depth (ft.): 64.67	Depth to Water (ft.): 58.62
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: ☒ Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump ☒ Bladder Pump
 Sampling Method: ☒ Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0956 Flow Rate: 200 mL/min Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or ☒ µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ☒ mL)	Depth to Water (ft.)
0959	12.66	6.80	249	71000	9.12	39.1	600	58.62
1002	12.74	6.72	221	454	9.02	44.7	1200	58.62
1005	12.90	6.72	220	346	8.79	45.6	1800	58.62
1008	12.95	6.70	217	399	8.66	43.3	2400	58.62
1011	13.03	6.69	213	415	8.56	42.7	3000	58.62
1014	13.02	6.66	212	421	8.57	41.1	3600	58.62

Did well dewater? Yes ☒ No		Amount actually evacuated: 3.62	
Sampling Time: 1015		Sampling Date: 10/23/19	
Sample I.D.: mw-b		Laboratory: Pace	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: ☒ see C.O.C.	
Equipment Blank I.D.: @		Duplicate I.D.: Time	

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022-HP1	Client: GRD
Sampler: HP	Gauging Date: 10/22/19
Well I.D.: mw-7	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 69.92	Depth to Water (ft.): 59.68
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1121 Flow Rate: 200 mL/min Pump Depth: 65'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or μ S/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1124	15.54	6.71	224	459	10.68	81.2	600	59.69
1127	17.85	5.98	226	310	8.83	98.0	1200	59.69
1130	17.80	6.03	226	292	8.91	93.8	1800	59.69
1133	17.77	6.08	226	123	9.00	89.6	2400	59.69
1136	17.79	6.11	226	115	8.95	86.2	3000	59.69
1139	17.81	6.15	226	117	8.94	85.2	3600	59.69

Did well dewater? Yes ☒ No ☐		Amount actually evacuated: 3.6L	
Sampling Time: 1140		Sampling Date: 10/22/19	
Sample I.D.: mw-7		Laboratory: Pace	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: see C.O.C.	
Equipment Blank I.D.: @		Duplicate I.D.:	

LOW FLOW WELL MONITORING DATA SHEET

Project #:	191022-HP1	Client:	GHD
Sampler:	HP	Gauging Date:	10/22/19
Well I.D.:	MW-8	Well Diameter (in.):	② 3 4 6 8
Total Well Depth (ft.):	69.72	Depth to Water (ft.):	60.17
Depth to Free Product:	—	Thickness of Free Product (feet):	—
Referenced to:	PVC Grade	Flow Cell Type:	YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____

Start Purge Time: 1041 Flow Rate: 200 mL/min Pump Depth: 65'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1044	16.17	5.67	268	71000	6.20	128.4	600	60.18
1047	15.81	5.83	247	42	9.25	128.1	1200	60.18
1050	15.06	5.83	235	48	9.36	124.4	1800	60.18
1053	14.93	5.83	233	37	9.29	124.0	2400	60.18
1056	17.83	5.85	233	38	9.32	121.6	3000	60.18
1059	17.80	5.87	232	37	9.36	117.7	3600	60.18

Did well dewater? Yes	No	Amount actually evacuated:	3.6 L
Sampling Time:	1100	Sampling Date:	10/22/19
Sample I.D.:	MW-8	Laboratory:	Pace
Analyzed for:	TPH-G BTEX MTBE TPH-D	Other:	see C.O.C.
Equipment Blank I.D.:	@	Duplicate I.D.:	

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022-HP1	Client: GHD
Sampler: HP	Gauging Date: 10/23/19
Well I.D.: MW-9	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 47.83	Depth to Water (ft.): 45.45
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVO Grade	Flow Cell Type: 451 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1034 Flow Rate: 200 mL/min Pump Depth: 47'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1037	12.54	6.95	222	71000	9.80	59.4	600	45.47
1040	12.38	6.88	219	71000	8.45	57.7	1200	45.47
1043	12.55	6.85	217	71000	6.79	52.3	1800	45.47
1046	12.66	6.84	217	71000	6.33	50.1	2400	45.47
1049	12.69	6.84	216	71000	6.32	50.0	3000	45.47
1052	12.67	6.83	215	71000	6.24	48.5	3600	45.47

Did well dewater? Yes ☒ No	Amount actually evacuated: 3.6L
Sampling Time: 1053	Sampling Date: 10/23/19
Sample I.D.: MW-9	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see C.O.C.
Equipment Blank I.D.: @	Duplicate I.D.: Time

LOW FLOW WELL MONITORING DATA SHEET

Project #: 191022- MFI	Client: GRD
Sampler: MF	Gauging Date: 10/23/19
Well I.D.: mw-10	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 48.70	Depth to Water (ft.): 45.70
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: RVC Grade	Flow Cell Type: 461 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0850 Flow Rate: 200 mL/min Pump Depth: 48'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0853	13.82	6.95	185	71000	7.90	-16.7	600	45.70
0856	14.06	6.79	182	71000	7.10	-2.9	1200	45.70
0859	14.09	6.75	180	71000	6.95	1.6	1800	45.70
0902	14.11	6.73	177	71000	6.94	4.7	2400	45.70
0905	14.12	6.70	176	71000	6.98	6.5	3000	45.72
0908	14.11	6.70	176	71000	7.00	7.9	3600	45.72

Did well dewater? Yes <u>(No)</u>	Amount actually evacuated: 3.6 L
Sampling Time: 0909	Sampling Date: 10/23/19
Sample I.D.: mw-10	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See C.O.C.
Equipment Blank I.D.: @	Duplicate I.D.:

WELLHEAD INSPECTION FORM

Client: GND Site: 1300 W. 12th St., Vancouver, WA Date: 10/22/19
 Job #: 191022-H#1 Technician: HW Page 1 of 1

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency										Well Not Inspected (explain in notes)	Notes (list if cap or lick replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)			
		Cap non-functional	Lock non-functional	Lock missing	Bolts missing (list qty)	Tabs stripped (list qty)	Tabs broken (list qty)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard			Below Grade	Other (explain in notes)	
MW-1	X			X												
MW-2	X			X												
MW-4					3/3											
MW-5A					2/3							X				water bailed
MW-6					3/3											
MW-7	X			X												
MW-8	X			X								X				water bailed
MW-9	X															
MW-10	X											X				water bailed

NOTES: _____

PHILLIPS 66-WASHINGTON/OREGON TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING**
FOR PURGEWATER RECOVERED FROM
GROUNDWATER WELLS AT PHILLIPS 66 FACILITIES IN
THE STATE OF WASHINGTON AND OREGON. THE
PURGE- WATER WHICH HAS BEEN RECOVERED FROM
GROUND- WATER WELLS IS COLLECTED BY THE
CONTRACTOR AND HAULED TO THEIR FACILITY IN
KENT, WASHINGTON FOR TEMPORARILY HOLDING
PENDING TRANSPORT BY OTHERS TO FINAL
DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 22727 72ND Ave South, Suite D - 102, Kent, WA 98032. BLAINE TECH. is authorized by PHILLIPS 66 to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the PHILLIPS 66 facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one PHILLIPS 66 facility to BLAINE TECH; from one PHILLIPS 66 facility to BLAINE TECH via another PHILLIPS 66 facility; or any combination thereof. The well purgewater is and remains the property of PHILLIPS 66.

This Source Record **BILL OF LADING** was
initiated to cover the recovery of Non-Hazardous Well
Purgewater from wells at the PHILLIPS 66 facility described
below:

11195925 Matt Davis
PHILLIPS 66 # PHILLIPS 66 Project Manager
1300 W. 12th St Vancouver WA
Street number street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-1	1.0		
MW-2	1.0		
MW-4	1.0		
MW-5A	1.2		
MW-6	1.0		
MW-7	1.0		
MW-8	1.0		
MW-9	1.0		
MW-10	1.0		

added equip.
rinse water / 2.0

any other
adjustments /

TOTAL GALS.

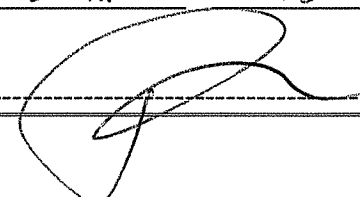
RECOVERED 11.2

loaded onto

BTS vehicle # 88

BTS event # 191022 HPI time 1500 date 10/27/19

signature



TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 1300 W. 12 th St., Vancouver, WA				PROJECT NUMBER 191022-HF1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP(c)	INITIALS
YSI 556	BTS #5	10/22/19 0950	pH-7 7 10	4.01 7.03 10.02	✓ ✓ ✓	12.71 13.12 12.97	MP MP MP
↓	↓	↓	Cond-3900	3900	✓	13.84	MP
↓	↓	↓	ORP-240	242	✓	14.57	MP
↓	↓	↓	DO-100	105.8	✓	13.87	MP
YSI 55	BTS #5	10/23/19 0800	pH-7 7 10	4.06 7.04 10.05	✓ ✓ ✓	12.49 12.87 12.59	MP MP MP
↓	↓	↓	Cond-3900	3922	✓	11.41	MP
↓	↓	↓	ORP-240	242	✓	13.72	MP
↓	↓	↓	DO-100	103.2	✓	13.54	MP

Appendix B

Laboratory Analytical Reports

November 13, 2019

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

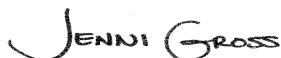
RE: Project: 11145925 P66/ 1300 W. 12th St.
Pace Project No.: 10496731

Dear Matthew Davis:

Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 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.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Minnesota Certification IDs

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
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: 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

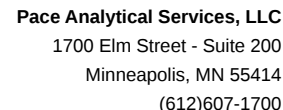
Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10496731001	Dup-1	Water	10/22/19 12:00	10/24/19 08:45
10496731002	MW-1	Water	10/23/19 09:41	10/24/19 08:45
10496731003	MW-2	Water	10/22/19 14:53	10/24/19 08:45
10496731004	MW-4	Water	10/22/19 13:41	10/24/19 08:45
10496731005	MW-5A	Water	10/22/19 14:22	10/24/19 08:45
10496731006	MW-6	Water	10/23/19 10:15	10/24/19 08:45
10496731007	MW-7	Water	10/22/19 11:40	10/24/19 08:45
10496731008	MW-8	Water	10/22/19 11:00	10/24/19 08:45
10496731009	MW-9	Water	10/23/19 10:53	10/24/19 08:45
10496731010	MW-10	Water	10/23/19 09:09	10/24/19 08:45
10496731011	Trip Blank	Water	10/22/19 00:00	10/24/19 08:45

REPORT OF LABORATORY ANALYSIS

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Project: 11145925 P66/ 1300 W. 12th St.
Pace Project No.: 10496731

Page 4 of 50

PROJECT NARRATIVE

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Method: NWTPH-Dx

Description: NWTPH-Dx GCS LV

Client: GHD Services Inc

Date: November 13, 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 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.

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:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: GHD Services Inc

Date: November 13, 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:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Method: EPA 8260B

Description: 8260B VOC

Client: GHD Services Inc

Date: November 13, 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.

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- Trip Blank (Lab ID: 10496731011)

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.

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: 642600

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10496899006

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

- MS (Lab ID: 3461768)
 - Chloromethane
 - Hexachloro-1,3-butadiene
 - Vinyl chloride

QC Batch: 642766

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10496944003

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

- MS (Lab ID: 3461379)
 - Hexachloro-1,3-butadiene

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Method: EPA 8260B

Description: 8260B VOC

Client: GHD Services Inc

Date: November 13, 2019

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: Dup-1		Lab ID: 10496731001		Collected: 10/22/19 12:00		Received: 10/24/19 08:45		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		11/05/19 23:53			
Surrogates									
a,a,a-Trifluorotoluene (S)	89	%.	50-150	1		11/05/19 23:53	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/01/19 00:29	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/01/19 00:29	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/01/19 00:29	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/01/19 00:29	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/01/19 00:29	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/01/19 00:29	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/01/19 00:29	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/01/19 00:29	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/01/19 00:29	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/01/19 00:29	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/01/19 00:29	106-46-7		
Benzene	ND	ug/L	1.0	1		11/01/19 00:29	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/01/19 00:29	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/01/19 00:29	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/01/19 00:29	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/01/19 00:29	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/01/19 00:29	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/01/19 00:29	75-00-3		
Chloroform	ND	ug/L	1.0	1		11/01/19 00:29	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/01/19 00:29	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/01/19 00:29	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/01/19 00:29	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/01/19 00:29	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/01/19 00:29	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/01/19 00:29	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/01/19 00:29	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/01/19 00:29	91-20-3		
Tetrachloroethene	4.4	ug/L	1.0	1		11/01/19 00:29	127-18-4		
Toluene	ND	ug/L	1.0	1		11/01/19 00:29	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/01/19 00:29	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/01/19 00:29	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		11/01/19 00:29	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/01/19 00:29	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/01/19 00:29	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/01/19 00:29	10061-01-5		
m&p-Xylene	ND	ug/L	2.0	1		11/01/19 00:29	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		11/01/19 00:29	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/01/19 00:29	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/01/19 00:29	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	87	%.	75-125	1		11/01/19 00:29	17060-07-0		
Toluene-d8 (S)	99	%.	75-125	1		11/01/19 00:29	2037-26-5		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: Dup-1		Lab ID: 10496731001		Collected: 10/22/19 12:00		Received: 10/24/19 08:45		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		11/01/19 00:29	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-1		Lab ID: 10496731002		Collected: 10/23/19 09:41		Received: 10/24/19 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	476	1	10/24/19 18:56	10/28/19 15:42	68334-30-5		
Motor Oil Range	ND	ug/L	476	1	10/24/19 18:56	10/28/19 15:42			
Surrogates									
o-Terphenyl (S)	69	%.	50-150	1	10/24/19 18:56	10/28/19 15:42	84-15-1		
n-Triacontane (S)	71	%.	50-150	1	10/24/19 18:56	10/28/19 15:42	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/06/19 21:06			
Surrogates									
a,a,a-Trifluorotoluene (S)	85	%.	50-150	1		11/06/19 21:06	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/04/19 14:43	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/04/19 14:43	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/04/19 14:43	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/04/19 14:43	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/04/19 14:43	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/04/19 14:43	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 14:43	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/04/19 14:43	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/04/19 14:43	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 14:43	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 14:43	106-46-7		
Benzene	ND	ug/L	1.0	1		11/04/19 14:43	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/04/19 14:43	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/04/19 14:43	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/04/19 14:43	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/04/19 14:43	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/04/19 14:43	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/04/19 14:43	75-00-3		
Chloroform	ND	ug/L	1.0	1		11/04/19 14:43	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/04/19 14:43	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/04/19 14:43	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/04/19 14:43	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/04/19 14:43	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/04/19 14:43	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/04/19 14:43	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/04/19 14:43	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/04/19 14:43	91-20-3		
Tetrachloroethene	2.0	ug/L	1.0	1		11/04/19 14:43	127-18-4		
Toluene	ND	ug/L	1.0	1		11/04/19 14:43	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/04/19 14:43	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/04/19 14:43	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		11/04/19 14:43	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/04/19 14:43	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/04/19 14:43	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/04/19 14:43	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-1		Lab ID: 10496731002		Collected: 10/23/19 09:41		Received: 10/24/19 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		11/04/19 14:43	179601-23-1	
o-Xylene		ND	ug/L	1.0	1		11/04/19 14:43	95-47-6	
trans-1,2-Dichloroethene		ND	ug/L	1.0	1		11/04/19 14:43	156-60-5	
trans-1,3-Dichloropropene		ND	ug/L	4.0	1		11/04/19 14:43	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)		85	%.	75-125	1		11/04/19 14:43	17060-07-0	
Toluene-d8 (S)		97	%.	75-125	1		11/04/19 14:43	2037-26-5	
4-Bromofluorobenzene (S)		102	%.	75-125	1		11/04/19 14:43	460-00-4	

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-2		Lab ID: 10496731003		Collected: 10/22/19 14:53		Received: 10/24/19 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	476	1	10/24/19 18:56	10/28/19 14:56	68334-30-5		
Motor Oil Range	ND	ug/L	476	1	10/24/19 18:56	10/28/19 14:56			
Surrogates									
o-Terphenyl (S)	79	%.	50-150	1	10/24/19 18:56	10/28/19 14:56	84-15-1		
n-Triacontane (S)	83	%.	50-150	1	10/24/19 18:56	10/28/19 14:56	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/05/19 22:12			
Surrogates									
a,a,a-Trifluorotoluene (S)	86	%.	50-150	1		11/05/19 22:12	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/31/19 22:30	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/31/19 22:30	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/31/19 22:30	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		10/31/19 22:30	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		10/31/19 22:30	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		10/31/19 22:30	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 22:30	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		10/31/19 22:30	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		10/31/19 22:30	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 22:30	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 22:30	106-46-7		
Benzene	ND	ug/L	1.0	1		10/31/19 22:30	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		10/31/19 22:30	75-27-4		
Bromoform	ND	ug/L	4.0	1		10/31/19 22:30	75-25-2		
Bromomethane	ND	ug/L	4.0	1		10/31/19 22:30	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		10/31/19 22:30	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		10/31/19 22:30	108-90-7		
Chloroethane	ND	ug/L	1.0	1		10/31/19 22:30	75-00-3		
Chloroform	1.7	ug/L	1.0	1		10/31/19 22:30	67-66-3		
Chloromethane	ND	ug/L	4.0	1		10/31/19 22:30	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		10/31/19 22:30	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		10/31/19 22:30	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		10/31/19 22:30	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		10/31/19 22:30	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/31/19 22:30	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		10/31/19 22:30	75-09-2		
Naphthalene	ND	ug/L	4.0	1		10/31/19 22:30	91-20-3		
Tetrachloroethene	2.1	ug/L	1.0	1		10/31/19 22:30	127-18-4		
Toluene	ND	ug/L	1.0	1		10/31/19 22:30	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		10/31/19 22:30	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		10/31/19 22:30	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		10/31/19 22:30	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		10/31/19 22:30	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 22:30	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 22:30	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-2		Lab ID: 10496731003		Collected: 10/22/19 14:53		Received: 10/24/19 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		10/31/19 22:30	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		10/31/19 22:30	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 22:30	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 22:30	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	89	%.	75-125	1		10/31/19 22:30	17060-07-0		
Toluene-d8 (S)	98	%.	75-125	1		10/31/19 22:30	2037-26-5		
4-Bromofluorobenzene (S)	98	%.	75-125	1		10/31/19 22:30	460-00-4		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-4		Lab ID: 10496731004		Collected: 10/22/19 13:41		Received: 10/24/19 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	500	1	10/24/19 18:56	10/28/19 15:08	68334-30-5		
Motor Oil Range	ND	ug/L	500	1	10/24/19 18:56	10/28/19 15:08			
Surrogates									
o-Terphenyl (S)	80	%.	50-150	1	10/24/19 18:56	10/28/19 15:08	84-15-1		
n-Triacontane (S)	78	%.	50-150	1	10/24/19 18:56	10/28/19 15:08	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/05/19 22:28			
Surrogates									
a,a,a-Trifluorotoluene (S)	86	%.	50-150	1		11/05/19 22:28	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/31/19 22:47	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/31/19 22:47	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/31/19 22:47	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		10/31/19 22:47	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		10/31/19 22:47	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		10/31/19 22:47	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 22:47	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		10/31/19 22:47	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		10/31/19 22:47	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 22:47	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 22:47	106-46-7		
Benzene	ND	ug/L	1.0	1		10/31/19 22:47	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		10/31/19 22:47	75-27-4		
Bromoform	ND	ug/L	4.0	1		10/31/19 22:47	75-25-2		
Bromomethane	ND	ug/L	4.0	1		10/31/19 22:47	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		10/31/19 22:47	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		10/31/19 22:47	108-90-7		
Chloroethane	ND	ug/L	1.0	1		10/31/19 22:47	75-00-3		
Chloroform	ND	ug/L	1.0	1		10/31/19 22:47	67-66-3		
Chloromethane	ND	ug/L	4.0	1		10/31/19 22:47	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		10/31/19 22:47	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		10/31/19 22:47	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		10/31/19 22:47	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		10/31/19 22:47	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/31/19 22:47	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		10/31/19 22:47	75-09-2		
Naphthalene	ND	ug/L	4.0	1		10/31/19 22:47	91-20-3		
Tetrachloroethene	4.6	ug/L	1.0	1		10/31/19 22:47	127-18-4		
Toluene	ND	ug/L	1.0	1		10/31/19 22:47	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		10/31/19 22:47	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		10/31/19 22:47	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		10/31/19 22:47	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		10/31/19 22:47	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 22:47	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 22:47	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-4		Lab ID: 10496731004		Collected: 10/22/19 13:41		Received: 10/24/19 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		10/31/19 22:47	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		10/31/19 22:47	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 22:47	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 22:47	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	88	%.	75-125	1		10/31/19 22:47	17060-07-0		
Toluene-d8 (S)	99	%.	75-125	1		10/31/19 22:47	2037-26-5		
4-Bromofluorobenzene (S)	100	%.	75-125	1		10/31/19 22:47	460-00-4		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-5A		Lab ID: 10496731005		Collected: 10/22/19 14:22		Received: 10/24/19 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	476	1	10/24/19 18:56	10/28/19 15:19	68334-30-5		
Motor Oil Range	ND	ug/L	476	1	10/24/19 18:56	10/28/19 15:19			
Surrogates									
o-Terphenyl (S)	52	%.	50-150	1	10/24/19 18:56	10/28/19 15:19	84-15-1		
n-Triacontane (S)	59	%.	50-150	1	10/24/19 18:56	10/28/19 15:19	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/05/19 22:45			
Surrogates									
a,a,a-Trifluorotoluene (S)	88	%.	50-150	1		11/05/19 22:45	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/31/19 23:04	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/31/19 23:04	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/31/19 23:04	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		10/31/19 23:04	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		10/31/19 23:04	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		10/31/19 23:04	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 23:04	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		10/31/19 23:04	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		10/31/19 23:04	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 23:04	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 23:04	106-46-7		
Benzene	ND	ug/L	1.0	1		10/31/19 23:04	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		10/31/19 23:04	75-27-4		
Bromoform	ND	ug/L	4.0	1		10/31/19 23:04	75-25-2		
Bromomethane	ND	ug/L	4.0	1		10/31/19 23:04	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		10/31/19 23:04	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		10/31/19 23:04	108-90-7		
Chloroethane	ND	ug/L	1.0	1		10/31/19 23:04	75-00-3		
Chloroform	ND	ug/L	1.0	1		10/31/19 23:04	67-66-3		
Chloromethane	ND	ug/L	4.0	1		10/31/19 23:04	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		10/31/19 23:04	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		10/31/19 23:04	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		10/31/19 23:04	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		10/31/19 23:04	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/31/19 23:04	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		10/31/19 23:04	75-09-2		
Naphthalene	ND	ug/L	4.0	1		10/31/19 23:04	91-20-3		
Tetrachloroethene	6.0	ug/L	1.0	1		10/31/19 23:04	127-18-4		
Toluene	ND	ug/L	1.0	1		10/31/19 23:04	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		10/31/19 23:04	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		10/31/19 23:04	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		10/31/19 23:04	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		10/31/19 23:04	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 23:04	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 23:04	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-5A		Lab ID: 10496731005		Collected: 10/22/19 14:22		Received: 10/24/19 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		10/31/19 23:04	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		10/31/19 23:04	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 23:04	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 23:04	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	89	%.	75-125	1		10/31/19 23:04	17060-07-0		
Toluene-d8 (S)	100	%.	75-125	1		10/31/19 23:04	2037-26-5		
4-Bromofluorobenzene (S)	100	%.	75-125	1		10/31/19 23:04	460-00-4		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-6		Lab ID: 10496731006		Collected: 10/23/19 10:15		Received: 10/24/19 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	500	1	10/24/19 18:56	10/28/19 15:54	68334-30-5		
Motor Oil Range	ND	ug/L	500	1	10/24/19 18:56	10/28/19 15:54			
Surrogates									
o-Terphenyl (S)	68	%.	50-150	1	10/24/19 18:56	10/28/19 15:54	84-15-1		
n-Triacontane (S)	76	%.	50-150	1	10/24/19 18:56	10/28/19 15:54	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/06/19 21:39			
Surrogates									
a,a,a-Trifluorotoluene (S)	87	%.	50-150	1		11/06/19 21:39	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/04/19 15:00	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/04/19 15:00	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/04/19 15:00	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/04/19 15:00	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:00	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/04/19 15:00	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:00	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/04/19 15:00	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/04/19 15:00	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:00	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:00	106-46-7		
Benzene	ND	ug/L	1.0	1		11/04/19 15:00	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/04/19 15:00	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/04/19 15:00	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/04/19 15:00	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/04/19 15:00	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/04/19 15:00	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/04/19 15:00	75-00-3		
Chloroform	ND	ug/L	1.0	1		11/04/19 15:00	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/04/19 15:00	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/04/19 15:00	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/04/19 15:00	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/04/19 15:00	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/04/19 15:00	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/04/19 15:00	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/04/19 15:00	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/04/19 15:00	91-20-3		
Tetrachloroethene	ND	ug/L	1.0	1		11/04/19 15:00	127-18-4		
Toluene	ND	ug/L	1.0	1		11/04/19 15:00	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/04/19 15:00	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/04/19 15:00	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		11/04/19 15:00	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/04/19 15:00	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:00	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/04/19 15:00	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-6		Lab ID: 10496731006		Collected: 10/23/19 10:15		Received: 10/24/19 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		11/04/19 15:00	179601-23-1	
o-Xylene		ND	ug/L	1.0	1		11/04/19 15:00	95-47-6	
trans-1,2-Dichloroethene		ND	ug/L	1.0	1		11/04/19 15:00	156-60-5	
trans-1,3-Dichloropropene		ND	ug/L	4.0	1		11/04/19 15:00	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)		86	%.	75-125	1		11/04/19 15:00	17060-07-0	
Toluene-d8 (S)		97	%.	75-125	1		11/04/19 15:00	2037-26-5	
4-Bromofluorobenzene (S)		102	%.	75-125	1		11/04/19 15:00	460-00-4	

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-7		Lab ID: 10496731007		Collected: 10/22/19 11:40		Received: 10/24/19 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	385	1	10/24/19 18:56	10/28/19 15:31	68334-30-5		
Motor Oil Range	ND	ug/L	385	1	10/24/19 18:56	10/28/19 15:31			
Surrogates									
o-Terphenyl (S)	78	%.	50-150	1	10/24/19 18:56	10/28/19 15:31	84-15-1		
n-Triacontane (S)	88	%.	50-150	1	10/24/19 18:56	10/28/19 15:31	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/05/19 23:02			
Surrogates									
a,a,a-Trifluorotoluene (S)	91	%.	50-150	1		11/05/19 23:02	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/31/19 23:20	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/31/19 23:20	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/31/19 23:20	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		10/31/19 23:20	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		10/31/19 23:20	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		10/31/19 23:20	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 23:20	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		10/31/19 23:20	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		10/31/19 23:20	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 23:20	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		10/31/19 23:20	106-46-7		
Benzene	ND	ug/L	1.0	1		10/31/19 23:20	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		10/31/19 23:20	75-27-4		
Bromoform	ND	ug/L	4.0	1		10/31/19 23:20	75-25-2		
Bromomethane	ND	ug/L	4.0	1		10/31/19 23:20	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		10/31/19 23:20	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		10/31/19 23:20	108-90-7		
Chloroethane	ND	ug/L	1.0	1		10/31/19 23:20	75-00-3		
Chloroform	ND	ug/L	1.0	1		10/31/19 23:20	67-66-3		
Chloromethane	ND	ug/L	4.0	1		10/31/19 23:20	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		10/31/19 23:20	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		10/31/19 23:20	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		10/31/19 23:20	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		10/31/19 23:20	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/31/19 23:20	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		10/31/19 23:20	75-09-2		
Naphthalene	ND	ug/L	4.0	1		10/31/19 23:20	91-20-3		
Tetrachloroethene	ND	ug/L	1.0	1		10/31/19 23:20	127-18-4		
Toluene	ND	ug/L	1.0	1		10/31/19 23:20	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		10/31/19 23:20	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		10/31/19 23:20	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		10/31/19 23:20	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		10/31/19 23:20	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 23:20	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 23:20	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-7		Lab ID: 10496731007		Collected: 10/22/19 11:40		Received: 10/24/19 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		10/31/19 23:20	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		10/31/19 23:20	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/31/19 23:20	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		10/31/19 23:20	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	89	%.	75-125	1		10/31/19 23:20	17060-07-0		
Toluene-d8 (S)	100	%.	75-125	1		10/31/19 23:20	2037-26-5		
4-Bromofluorobenzene (S)	99	%.	75-125	1		10/31/19 23:20	460-00-4		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-8		Lab ID: 10496731008		Collected: 10/22/19 11:00		Received: 10/24/19 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	455	1	10/24/19 18:56	10/28/19 16:05	68334-30-5		
Motor Oil Range	ND	ug/L	455	1	10/24/19 18:56	10/28/19 16:05			
Surrogates									
o-Terphenyl (S)	63	%.	50-150	1	10/24/19 18:56	10/28/19 16:05	84-15-1		
n-Triacontane (S)	72	%.	50-150	1	10/24/19 18:56	10/28/19 16:05	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/05/19 23:19			
Surrogates									
a,a,a-Trifluorotoluene (S)	87	%.	50-150	1		11/05/19 23:19	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/01/19 00:12	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/01/19 00:12	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/01/19 00:12	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/01/19 00:12	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/01/19 00:12	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/01/19 00:12	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/01/19 00:12	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/01/19 00:12	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/01/19 00:12	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/01/19 00:12	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/01/19 00:12	106-46-7		
Benzene	ND	ug/L	1.0	1		11/01/19 00:12	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/01/19 00:12	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/01/19 00:12	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/01/19 00:12	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/01/19 00:12	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/01/19 00:12	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/01/19 00:12	75-00-3		
Chloroform	1.0	ug/L	1.0	1		11/01/19 00:12	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/01/19 00:12	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/01/19 00:12	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/01/19 00:12	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/01/19 00:12	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/01/19 00:12	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/01/19 00:12	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/01/19 00:12	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/01/19 00:12	91-20-3		
Tetrachloroethene	ND	ug/L	1.0	1		11/01/19 00:12	127-18-4		
Toluene	ND	ug/L	1.0	1		11/01/19 00:12	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/01/19 00:12	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/01/19 00:12	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		11/01/19 00:12	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/01/19 00:12	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/01/19 00:12	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/01/19 00:12	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-8		Lab ID: 10496731008		Collected: 10/22/19 11:00		Received: 10/24/19 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		11/01/19 00:12	179601-23-1	
o-Xylene		ND	ug/L	1.0	1		11/01/19 00:12	95-47-6	
trans-1,2-Dichloroethene		ND	ug/L	1.0	1		11/01/19 00:12	156-60-5	
trans-1,3-Dichloropropene		ND	ug/L	4.0	1		11/01/19 00:12	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)		90	%.	75-125	1		11/01/19 00:12	17060-07-0	
Toluene-d8 (S)		100	%.	75-125	1		11/01/19 00:12	2037-26-5	
4-Bromofluorobenzene (S)		101	%.	75-125	1		11/01/19 00:12	460-00-4	

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-9		Lab ID: 10496731009		Collected: 10/23/19 10:53		Received: 10/24/19 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	588	1	10/24/19 18:56	10/28/19 16:17	68334-30-5		
Motor Oil Range	ND	ug/L	588	1	10/24/19 18:56	10/28/19 16:17			
Surrogates									
o-Terphenyl (S)	61	%.	50-150	1	10/24/19 18:56	10/28/19 16:17	84-15-1		
n-Triacontane (S)	63	%.	50-150	1	10/24/19 18:56	10/28/19 16:17	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/06/19 21:56			
Surrogates									
a,a,a-Trifluorotoluene (S)	89	%.	50-150	1		11/06/19 21:56	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/04/19 15:17	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/04/19 15:17	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/04/19 15:17	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/04/19 15:17	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:17	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/04/19 15:17	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:17	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/04/19 15:17	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/04/19 15:17	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:17	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:17	106-46-7		
Benzene	ND	ug/L	1.0	1		11/04/19 15:17	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/04/19 15:17	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/04/19 15:17	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/04/19 15:17	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/04/19 15:17	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/04/19 15:17	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/04/19 15:17	75-00-3		
Chloroform	2.5	ug/L	1.0	1		11/04/19 15:17	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/04/19 15:17	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/04/19 15:17	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/04/19 15:17	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/04/19 15:17	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/04/19 15:17	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/04/19 15:17	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/04/19 15:17	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/04/19 15:17	91-20-3		
Tetrachloroethene	2.1	ug/L	1.0	1		11/04/19 15:17	127-18-4		
Toluene	ND	ug/L	1.0	1		11/04/19 15:17	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/04/19 15:17	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/04/19 15:17	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		11/04/19 15:17	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/04/19 15:17	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:17	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/04/19 15:17	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-9		Lab ID: 10496731009		Collected: 10/23/19 10:53		Received: 10/24/19 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		11/04/19 15:17	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		11/04/19 15:17	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:17	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/04/19 15:17	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	85	%.	75-125	1		11/04/19 15:17	17060-07-0		
Toluene-d8 (S)	98	%.	75-125	1		11/04/19 15:17	2037-26-5		
4-Bromofluorobenzene (S)	99	%.	75-125	1		11/04/19 15:17	460-00-4		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-10		Lab ID: 10496731010		Collected: 10/23/19 09:09		Received: 10/24/19 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	526	1	10/24/19 18:56	10/28/19 16:28	68334-30-5		
Motor Oil Range	ND	ug/L	526	1	10/24/19 18:56	10/28/19 16:28			
Surrogates									
o-Terphenyl (S)	56	%.	50-150	1	10/24/19 18:56	10/28/19 16:28	84-15-1		
n-Triacontane (S)	53	%.	50-150	1	10/24/19 18:56	10/28/19 16:28	638-68-6		
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		11/06/19 22:13			
Surrogates									
a,a,a-Trifluorotoluene (S)	88	%.	50-150	1		11/06/19 22:13	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/04/19 15:34	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/04/19 15:34	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/04/19 15:34	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/04/19 15:34	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:34	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/04/19 15:34	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:34	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/04/19 15:34	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/04/19 15:34	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:34	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/04/19 15:34	106-46-7		
Benzene	ND	ug/L	1.0	1		11/04/19 15:34	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/04/19 15:34	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/04/19 15:34	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/04/19 15:34	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/04/19 15:34	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/04/19 15:34	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/04/19 15:34	75-00-3		
Chloroform	1.9	ug/L	1.0	1		11/04/19 15:34	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/04/19 15:34	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/04/19 15:34	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/04/19 15:34	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/04/19 15:34	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/04/19 15:34	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/04/19 15:34	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/04/19 15:34	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/04/19 15:34	91-20-3		
Tetrachloroethene	1.8	ug/L	1.0	1		11/04/19 15:34	127-18-4		
Toluene	ND	ug/L	1.0	1		11/04/19 15:34	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/04/19 15:34	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/04/19 15:34	75-69-4		
Vinyl chloride	ND	ug/L	0.20	1		11/04/19 15:34	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/04/19 15:34	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/04/19 15:34	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/04/19 15:34	10061-01-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: MW-10		Lab ID: 10496731010		Collected: 10/23/19 09:09		Received: 10/24/19 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		11/04/19 15:34	179601-23-1	
o-Xylene		ND	ug/L	1.0	1		11/04/19 15:34	95-47-6	
trans-1,2-Dichloroethene		ND	ug/L	1.0	1		11/04/19 15:34	156-60-5	
trans-1,3-Dichloropropene		ND	ug/L	4.0	1		11/04/19 15:34	10061-02-6	
Surrogates									
1,2-Dichloroethane-d4 (S)		86	%.	75-125	1		11/04/19 15:34	17060-07-0	
Toluene-d8 (S)		98	%.	75-125	1		11/04/19 15:34	2037-26-5	
4-Bromofluorobenzene (S)		101	%.	75-125	1		11/04/19 15:34	460-00-4	

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: Trip Blank		Lab ID: 10496731011		Collected: 10/22/19 00:00		Received: 10/24/19 08:45		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		11/05/19 23:36			
Surrogates									
a,a,a-Trifluorotoluene (S)	88	%.	50-150	1		11/05/19 23:36	98-08-8		
8260B VOC		Analytical Method: EPA 8260B							
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/03/19 15:25	71-55-6		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/03/19 15:25	79-34-5		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/03/19 15:25	79-00-5		
1,1-Dichloroethane	ND	ug/L	1.0	1		11/03/19 15:25	75-34-3		
1,1-Dichloroethene	ND	ug/L	1.0	1		11/03/19 15:25	75-35-4		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/03/19 15:25	106-93-4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/03/19 15:25	95-50-1		
1,2-Dichloroethane	ND	ug/L	1.0	1		11/03/19 15:25	107-06-2		
1,2-Dichloropropane	ND	ug/L	4.0	1		11/03/19 15:25	78-87-5		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/03/19 15:25	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/03/19 15:25	106-46-7		
Benzene	ND	ug/L	1.0	1		11/03/19 15:25	71-43-2		
Bromodichloromethane	ND	ug/L	1.0	1		11/03/19 15:25	75-27-4		
Bromoform	ND	ug/L	4.0	1		11/03/19 15:25	75-25-2		
Bromomethane	ND	ug/L	4.0	1		11/03/19 15:25	74-83-9		
Carbon tetrachloride	ND	ug/L	1.0	1		11/03/19 15:25	56-23-5		
Chlorobenzene	ND	ug/L	1.0	1		11/03/19 15:25	108-90-7		
Chloroethane	ND	ug/L	1.0	1		11/03/19 15:25	75-00-3		
Chloroform	ND	ug/L	4.0	1		11/03/19 15:25	67-66-3		
Chloromethane	ND	ug/L	4.0	1		11/03/19 15:25	74-87-3		
Dibromochloromethane	ND	ug/L	1.0	1		11/03/19 15:25	124-48-1		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/03/19 15:25	75-71-8		
Ethylbenzene	ND	ug/L	1.0	1		11/03/19 15:25	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/03/19 15:25	87-68-3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/03/19 15:25	1634-04-4		
Methylene Chloride	ND	ug/L	4.0	1		11/03/19 15:25	75-09-2		
Naphthalene	ND	ug/L	4.0	1		11/03/19 15:25	91-20-3		
Tetrachloroethene	ND	ug/L	1.0	1		11/03/19 15:25	127-18-4		
Toluene	ND	ug/L	1.0	1		11/03/19 15:25	108-88-3		
Trichloroethene	ND	ug/L	0.40	1		11/03/19 15:25	79-01-6		
Trichlorofluoromethane	ND	ug/L	1.0	1		11/03/19 15:25	75-69-4	L2	
Vinyl chloride	ND	ug/L	0.20	1		11/03/19 15:25	75-01-4		
Xylene (Total)	ND	ug/L	3.0	1		11/03/19 15:25	1330-20-7		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/03/19 15:25	156-59-2		
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		11/03/19 15:25	10061-01-5		
m&p-Xylene	ND	ug/L	2.0	1		11/03/19 15:25	179601-23-1		
o-Xylene	ND	ug/L	1.0	1		11/03/19 15:25	95-47-6		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/03/19 15:25	156-60-5		
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		11/03/19 15:25	10061-02-6		
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%.	75-125	1		11/03/19 15:25	17060-07-0		
Toluene-d8 (S)	99	%.	75-125	1		11/03/19 15:25	2037-26-5		

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ANALYTICAL RESULTS

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Sample: Trip Blank		Lab ID: 10496731011		Collected: 10/22/19 00:00		Received: 10/24/19 08:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC		Analytical Method: EPA 8260B							
Surrogates									
4-Bromofluorobenzene (S)		104	%.	75-125	1		11/03/19 15:25	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

QC Batch:	642991	Analysis Method:	NWTPH-Gx
QC Batch Method:	NWTPH-Gx	Analysis Description:	NWTPH-Gx Water
Associated Lab Samples:	10496731001, 10496731003, 10496731004, 10496731005, 10496731007, 10496731008, 10496731011		

METHOD BLANK:	3462233	Matrix:	Water
Associated Lab Samples:	10496731001, 10496731003, 10496731004, 10496731005, 10496731007, 10496731008, 10496731011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	11/05/19 21:55	
a,a,a-Trifluorotoluene (S)	%.	92	50-150	11/05/19 21:55	

LABORATORY CONTROL SAMPLE & LCSD: 3462235			3462236							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	941	872	94	87	75-125	8	20	
a,a,a-Trifluorotoluene (S)	%.				101	95	50-150			

SAMPLE DUPLICATE: 3463049		10496731003	Dup	Max		Qualifiers
Parameter	Units	Result	Result	RPD	RPD	
TPH as Gas	ug/L	ND	ND		30	H1
a,a,a-Trifluorotoluene (S)	%.	86	87			

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

QC Batch: 643418 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10496731002, 10496731006, 10496731009, 10496731010

METHOD BLANK: 3464210 Matrix: Water
Associated Lab Samples: 10496731002, 10496731006, 10496731009, 10496731010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	11/06/19 20:49	
a,a,a-Trifluorotoluene (S)	%.	87	50-150	11/06/19 20:49	

LABORATORY CONTROL SAMPLE & LCSD: 3464212

LABORATORY CONTROL SAMPLE & LCSD: 3464212			3464213							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	875	910	88	91	75-125	4	20	
a,a,a-Trifluorotoluene (S)	%.				96	97	50-150			

SAMPLE DUPLICATE: 3464276

Parameter	Units	10496731002 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	85	86			

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

QC Batch:	642287	Analysis Method:	EPA 8260B
QC Batch Method:	EPA 8260B	Analysis Description:	8260B MSV 465 W
Associated Lab Samples:	10496731001, 10496731003, 10496731004, 10496731005, 10496731007, 10496731008		

METHOD BLANK:	3458638	Matrix:	Water
Associated Lab Samples:	10496731001, 10496731003, 10496731004, 10496731005, 10496731007, 10496731008		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/31/19 20:14	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/31/19 20:14	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/31/19 20:14	
1,1-Dichloroethane	ug/L	ND	1.0	10/31/19 20:14	
1,1-Dichloroethene	ug/L	ND	1.0	10/31/19 20:14	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/31/19 20:14	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/31/19 20:14	
1,2-Dichloroethane	ug/L	ND	1.0	10/31/19 20:14	
1,2-Dichloropropane	ug/L	ND	4.0	10/31/19 20:14	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/31/19 20:14	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/31/19 20:14	
Benzene	ug/L	ND	1.0	10/31/19 20:14	
Bromodichloromethane	ug/L	ND	1.0	10/31/19 20:14	
Bromoform	ug/L	ND	4.0	10/31/19 20:14	
Bromomethane	ug/L	ND	4.0	10/31/19 20:14	
Carbon tetrachloride	ug/L	ND	1.0	10/31/19 20:14	
Chlorobenzene	ug/L	ND	1.0	10/31/19 20:14	
Chloroethane	ug/L	ND	1.0	10/31/19 20:14	
Chloroform	ug/L	ND	1.0	10/31/19 20:14	
Chloromethane	ug/L	ND	4.0	10/31/19 20:14	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/31/19 20:14	
cis-1,3-Dichloropropene	ug/L	ND	4.0	10/31/19 20:14	
Dibromochloromethane	ug/L	ND	1.0	10/31/19 20:14	
Dichlorodifluoromethane	ug/L	ND	1.0	10/31/19 20:14	
Ethylbenzene	ug/L	ND	1.0	10/31/19 20:14	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/31/19 20:14	
m&p-Xylene	ug/L	ND	2.0	10/31/19 20:14	
Methyl-tert-butyl ether	ug/L	ND	1.0	10/31/19 20:14	
Methylene Chloride	ug/L	ND	4.0	10/31/19 20:14	
Naphthalene	ug/L	ND	4.0	10/31/19 20:14	
o-Xylene	ug/L	ND	1.0	10/31/19 20:14	
Tetrachloroethene	ug/L	ND	1.0	10/31/19 20:14	
Toluene	ug/L	ND	1.0	10/31/19 20:14	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/31/19 20:14	
trans-1,3-Dichloropropene	ug/L	ND	4.0	10/31/19 20:14	
Trichloroethene	ug/L	ND	0.40	10/31/19 20:14	
Trichlorofluoromethane	ug/L	ND	1.0	10/31/19 20:14	
Vinyl chloride	ug/L	ND	0.20	10/31/19 20:14	
Xylene (Total)	ug/L	ND	3.0	10/31/19 20:14	
1,2-Dichloroethane-d4 (S)	%	89	75-125	10/31/19 20:14	
4-Bromofluorobenzene (S)	%	102	75-125	10/31/19 20:14	

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

METHOD BLANK: 3458638

Matrix: Water

Associated Lab Samples: 10496731001, 10496731003, 10496731004, 10496731005, 10496731007, 10496731008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene-d8 (S)	%.	99	75-125	10/31/19 20:14	

LABORATORY CONTROL SAMPLE: 3458639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	10	9.5	95	75-125	
1,1,2,2-Tetrachloroethane	ug/L	10	10.6	106	71-128	
1,1,2-Trichloroethane	ug/L	10	9.8	98	75-125	
1,1-Dichloroethane	ug/L	10	10	100	75-125	
1,1-Dichloroethene	ug/L	10	9.0	90	69-125	
1,2-Dibromoethane (EDB)	ug/L	10	9.2	92	75-125	
1,2-Dichlorobenzene	ug/L	10	9.9	99	75-125	
1,2-Dichloroethane	ug/L	10	8.8	88	71-125	
1,2-Dichloropropane	ug/L	10	9.6	96	72-125	
1,3-Dichlorobenzene	ug/L	10	10.1	101	75-125	
1,4-Dichlorobenzene	ug/L	10	9.7	97	75-125	
Benzene	ug/L	10	10	100	75-125	
Bromodichloromethane	ug/L	10	8.8	88	75-125	
Bromoform	ug/L	10	8.9	89	74-125	
Bromomethane	ug/L	10	7.1	71	30-150	
Carbon tetrachloride	ug/L	10	9.2	92	70-125	
Chlorobenzene	ug/L	10	9.8	98	75-125	
Chloroethane	ug/L	10	10.3	103	64-129	
Chloroform	ug/L	10	9.5	95	75-125	
Chloromethane	ug/L	10	8.5	85	67-125	
cis-1,2-Dichloroethene	ug/L	10	10.1	101	73-125	
cis-1,3-Dichloropropene	ug/L	10	9.1	91	75-125	
Dibromochloromethane	ug/L	10	8.8	88	75-125	
Dichlorodifluoromethane	ug/L	10	9.2	92	65-129	
Ethylbenzene	ug/L	10	9.6	96	75-125	
Hexachloro-1,3-butadiene	ug/L	10	9.1	91	66-137	
m&p-Xylene	ug/L	20	17.9	90	75-125	
Methyl-tert-butyl ether	ug/L	10	9.0	90	75-125	
Methylene Chloride	ug/L	10	9.2	92	72-125	
Naphthalene	ug/L	10	8.5	85	63-125	
o-Xylene	ug/L	10	9.6	96	75-125	
Tetrachloroethene	ug/L	10	9.3	93	75-125	
Toluene	ug/L	10	9.7	97	75-125	
trans-1,2-Dichloroethene	ug/L	10	9.5	95	70-125	
trans-1,3-Dichloropropene	ug/L	10	8.3	83	75-125	
Trichloroethene	ug/L	10	10.5	105	74-125	
Trichlorofluoromethane	ug/L	10	8.8	88	74-125	
Vinyl chloride	ug/L	10	10.8	108	71-125	
Xylene (Total)	ug/L	30	27.5	92	75-125	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

LABORATORY CONTROL SAMPLE: 3458639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%.			92	75-125	
4-Bromofluorobenzene (S)	%.			99	75-125	
Toluene-d8 (S)	%.			99	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3458809 3458810

Parameter	Units	10496721008 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	11.1	11.0	111	110	30-150	1	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	10	10	9.5	10.2	95	102	30-150	6	30	
1,1,2-Trichloroethane	ug/L	ND	10	10	9.2	9.5	92	95	30-150	3	30	
1,1-Dichloroethane	ug/L	ND	10	10	10.1	10.4	101	104	30-150	3	30	
1,1-Dichloroethene	ug/L	ND	10	10	11.2	11.2	112	112	30-150	0	30	
1,2-Dibromoethane (EDB)	ug/L	ND	10	10	8.7	9.1	87	91	30-150	4	30	
1,2-Dichlorobenzene	ug/L	ND	10	10	9.9	10.3	99	103	30-150	4	30	
1,2-Dichloroethane	ug/L	ND	10	10	8.4	8.6	84	86	30-150	2	30	
1,2-Dichloropropane	ug/L	ND	10	10	9.1	9.5	91	95	30-150	4	30	
1,3-Dichlorobenzene	ug/L	ND	10	10	10.0	10.6	100	106	30-150	6	30	
1,4-Dichlorobenzene	ug/L	ND	10	10	9.8	10.1	98	101	30-150	3	30	
Benzene	ug/L	ND	10	10	10.3	10.4	103	104	30-150	0	30	
Bromodichloromethane	ug/L	ND	10	10	8.9	9.0	89	90	30-150	1	30	
Bromoform	ug/L	ND	10	10	8.1	8.3	81	83	30-150	3	30	
Bromomethane	ug/L	ND	10	10	7.3	8.1	73	81	30-150	11	30	
Carbon tetrachloride	ug/L	ND	10	10	12.0	11.6	120	116	30-150	3	30	
Chlorobenzene	ug/L	ND	10	10	10	10.0	100	100	30-150	0	30	
Chloroethane	ug/L	ND	10	10	11.6	13.2	116	132	30-150	13	30	
Chloroform	ug/L	ND	10	10	9.5	9.5	90	90	30-150	0	30	
Chloromethane	ug/L	ND	10	10	10.7	10.5	107	105	30-150	2	30	
cis-1,2-Dichloroethene	ug/L	ND	10	10	10.5	10.2	105	102	30-150	3	30	
cis-1,3-Dichloropropene	ug/L	ND	10	10	8.9	9.0	89	90	30-145	1	30	
Dibromochloromethane	ug/L	ND	10	10	8.4	8.6	84	86	30-150	1	30	
Dichlorodifluoromethane	ug/L	ND	10	10	11.1	11.2	111	112	30-150	1	30	
Ethylbenzene	ug/L	ND	10	10	10.3	10.5	103	105	30-150	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	10	10	11.9	11.7	119	117	30-150	2	30	
m&p-Xylene	ug/L	ND	20	20	18.8	19.4	94	97	30-150	3	30	
Methyl-tert-butyl ether	ug/L	ND	10	10	8.4	8.7	84	87	30-150	4	30	
Methylene Chloride	ug/L	ND	10	10	9.3	9.3	93	93	30-146	0	30	
Naphthalene	ug/L	ND	10	10	8.4	9.2	84	92	30-150	9	30	
o-Xylene	ug/L	ND	10	10	9.5	10	95	100	30-150	5	30	
Tetrachloroethene	ug/L	ND	10	10	11.1	11.1	111	111	30-150	0	30	
Toluene	ug/L	ND	10	10	10.2	10.2	101	101	30-150	0	30	
trans-1,2-Dichloroethene	ug/L	ND	10	10	10.6	10.3	106	103	30-150	2	30	
trans-1,3-Dichloropropene	ug/L	ND	10	10	8.0	8.3	80	83	30-150	4	30	
Trichloroethene	ug/L	ND	10	10	11.4	11.3	114	113	30-150	1	30	
Trichlorofluoromethane	ug/L	ND	10	10	10.1	10	101	100	30-150	1	30	

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3458809 3458810												
Parameter	Units	10496721008 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	10	10	11.5	11.5	115	115	30-150	1	30	
Xylene (Total)	ug/L	ND	30	30	28.3	29.4	94	98	30-150	4	30	
1,2-Dichloroethane-d4 (S)	%						91	90	75-125			
4-Bromofluorobenzene (S)	%						98	99	75-125			
Toluene-d8 (S)	%						99	100	75-125			

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.
Pace Project No.: 10496731

QC Batch:	642600	Analysis Method:	EPA 8260B
QC Batch Method:	EPA 8260B	Analysis Description:	8260B MSV 465 W
Associated Lab Samples:	10496731011		

METHOD BLANK: 3460701 Matrix: Water
Associated Lab Samples: 10496731011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	11/03/19 14:17	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/03/19 14:17	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/03/19 14:17	
1,1-Dichloroethane	ug/L	ND	1.0	11/03/19 14:17	
1,1-Dichloroethene	ug/L	ND	1.0	11/03/19 14:17	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/03/19 14:17	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/03/19 14:17	
1,2-Dichloroethane	ug/L	ND	1.0	11/03/19 14:17	
1,2-Dichloropropane	ug/L	ND	4.0	11/03/19 14:17	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/03/19 14:17	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/03/19 14:17	
Benzene	ug/L	ND	1.0	11/03/19 14:17	
Bromodichloromethane	ug/L	ND	1.0	11/03/19 14:17	
Bromoform	ug/L	ND	4.0	11/03/19 14:17	
Bromomethane	ug/L	ND	4.0	11/03/19 14:17	
Carbon tetrachloride	ug/L	ND	1.0	11/03/19 14:17	
Chlorobenzene	ug/L	ND	1.0	11/03/19 14:17	
Chloroethane	ug/L	ND	1.0	11/03/19 14:17	
Chloroform	ug/L	ND	4.0	11/03/19 14:17	MN
Chloromethane	ug/L	ND	4.0	11/03/19 14:17	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/03/19 14:17	
cis-1,3-Dichloropropene	ug/L	ND	4.0	11/03/19 14:17	
Dibromochloromethane	ug/L	ND	1.0	11/03/19 14:17	
Dichlorodifluoromethane	ug/L	ND	1.0	11/03/19 14:17	
Ethylbenzene	ug/L	ND	1.0	11/03/19 14:17	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/03/19 14:17	
m&p-Xylene	ug/L	ND	2.0	11/03/19 14:17	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/03/19 14:17	
Methylene Chloride	ug/L	ND	4.0	11/03/19 14:17	
Naphthalene	ug/L	ND	4.0	11/03/19 14:17	
o-Xylene	ug/L	ND	1.0	11/03/19 14:17	
Tetrachloroethene	ug/L	ND	1.0	11/03/19 14:17	
Toluene	ug/L	ND	1.0	11/03/19 14:17	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/03/19 14:17	
trans-1,3-Dichloropropene	ug/L	ND	4.0	11/03/19 14:17	
Trichloroethene	ug/L	ND	0.40	11/03/19 14:17	
Trichlorofluoromethane	ug/L	ND	1.0	11/03/19 14:17	
Vinyl chloride	ug/L	ND	0.20	11/03/19 14:17	
Xylene (Total)	ug/L	ND	3.0	11/03/19 14:17	
1,2-Dichloroethane-d4 (S)	%	104	75-125	11/03/19 14:17	
4-Bromofluorobenzene (S)	%	103	75-125	11/03/19 14:17	

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

METHOD BLANK: 3460701

Matrix: Water

Associated Lab Samples: 10496731011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene-d8 (S)	%.	101	75-125	11/03/19 14:17	

LABORATORY CONTROL SAMPLE: 3460702

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	10	9.6	96	75-125	
1,1,2,2-Tetrachloroethane	ug/L	10	9.1	91	71-128	
1,1,2-Trichloroethane	ug/L	10	9.3	93	75-125	
1,1-Dichloroethane	ug/L	10	10.6	106	75-125	
1,1-Dichloroethene	ug/L	10	10.1	101	69-125	
1,2-Dibromoethane (EDB)	ug/L	10	9.7	97	75-125	
1,2-Dichlorobenzene	ug/L	10	8.9	89	75-125	
1,2-Dichloroethane	ug/L	10	10.8	108	71-125	
1,2-Dichloropropane	ug/L	10	11.0	110	72-125	
1,3-Dichlorobenzene	ug/L	10	8.8	88	75-125	
1,4-Dichlorobenzene	ug/L	10	8.7	87	75-125	
Benzene	ug/L	10	10.4	104	75-125	
Bromodichloromethane	ug/L	10	9.4	94	75-125	
Bromoform	ug/L	10	9.3	93	74-125	
Bromomethane	ug/L	10	7.8	78	30-150	
Carbon tetrachloride	ug/L	10	9.3	93	70-125	
Chlorobenzene	ug/L	10	9.1	91	75-125	
Chloroethane	ug/L	10	7.9	79	64-129	
Chloroform	ug/L	10	10.6	106	75-125	
Chloromethane	ug/L	10	11.6	116	67-125	
cis-1,2-Dichloroethene	ug/L	10	10.2	102	73-125	
cis-1,3-Dichloropropene	ug/L	10	9.2	92	75-125	
Dibromochloromethane	ug/L	10	9.7	97	75-125	
Dichlorodifluoromethane	ug/L	10	6.8	68	65-129	
Ethylbenzene	ug/L	10	9.8	98	75-125	
Hexachloro-1,3-butadiene	ug/L	10	9.4	94	66-137	
m&p-Xylene	ug/L	20	19.8	99	75-125	
Methyl-tert-butyl ether	ug/L	10	9.4	94	75-125	
Methylene Chloride	ug/L	10	11.0	110	72-125	
Naphthalene	ug/L	10	7.4	74	63-125	
o-Xylene	ug/L	10	9.5	95	75-125	
Tetrachloroethene	ug/L	10	9.0	90	75-125	
Toluene	ug/L	10	9.6	96	75-125	
trans-1,2-Dichloroethene	ug/L	10	10.5	105	70-125	
trans-1,3-Dichloropropene	ug/L	10	9.5	95	75-125	
Trichloroethene	ug/L	10	9.6	96	74-125	
Trichlorofluoromethane	ug/L	10	7.3	73	74-125 L2	
Vinyl chloride	ug/L	10	9.2	92	71-125	
Xylene (Total)	ug/L	30	29.4	98	75-125	

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

LABORATORY CONTROL SAMPLE: 3460702

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%.			106	75-125	
4-Bromofluorobenzene (S)	%.			104	75-125	
Toluene-d8 (S)	%.			103	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461768 3461769

Parameter	Units	10496899006 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	<0.14	10	10	11.0	11.7	110	117	30-150	6	30	
1,1,2,2-Tetrachloroethane	ug/L	<0.17	10	10	8.8	10.1	88	101	30-150	14	30	
1,1,2-Trichloroethane	ug/L	<0.18	10	10	9.5	10.6	95	106	30-150	11	30	
1,1-Dichloroethane	ug/L	<0.17	10	10	11.5	11.6	115	116	30-150	1	30	
1,1-Dichloroethene	ug/L	<0.16	10	10	12.7	12.6	127	126	30-150	1	30	
1,2-Dibromoethane (EDB)	ug/L	<0.24	10	10	9.5	10.3	95	103	30-150	8	30	
1,2-Dichlorobenzene	ug/L	<0.14	10	10	9.3	10	93	100	30-150	8	30	
1,2-Dichloroethane	ug/L	<0.22	10	10	10.9	11.6	109	116	30-150	6	30	
1,2-Dichloropropane	ug/L	<0.16	10	10	11.7	12.4	117	124	30-150	6	30	
1,3-Dichlorobenzene	ug/L	<0.16	10	10	9.3	10.1	93	101	30-150	8	30	
1,4-Dichlorobenzene	ug/L	<0.17	10	10	9.3	9.9	93	99	30-150	6	30	
Benzene	ug/L	<0.10	10	10	11.2	11.5	112	115	30-150	2	30	
Bromodichloromethane	ug/L	<0.22	10	10	9.6	10.4	96	104	30-150	8	30	
Bromoform	ug/L	<0.80	10	10	9.5	10.6	95	106	30-150	11	30	
Bromomethane	ug/L	<1.8	10	10	12.1	9.9	121	99	30-150	21	30	
Carbon tetrachloride	ug/L	<0.19	10	10	11.1	11.5	111	115	30-150	4	30	
Chlorobenzene	ug/L	<0.17	10	10	9.4	10.3	94	103	30-150	9	30	
Chloroethane	ug/L	<0.49	10	10	12.9	9.9	129	99	30-150	27	30	
Chloroform	ug/L	<0.49	10	10	10.7	10.8	107	108	30-150	1	30	
Chloromethane	ug/L	<0.48	10	10	18.7	14.7	187	147	30-150	24	30	M1
cis-1,2-Dichloroethene	ug/L	<0.15	10	10	11.5	11.7	115	117	30-150	2	30	
cis-1,3-Dichloropropene	ug/L	<0.20	10	10	9.9	10.3	99	103	30-145	4	30	
Dibromochloromethane	ug/L	<0.46	10	10	9.7	10.3	97	103	30-150	6	30	
Dichlorodifluoromethane	ug/L	<0.23	10	10	13.7	10.8	137	108	30-150	23	30	
Ethylbenzene	ug/L	<0.14	10	10	10.3	11.1	103	111	30-150	8	30	
Hexachloro-1,3-butadiene	ug/L	<0.44	10	10	15.3	13.8	153	138	30-150	10	30	M1
m&p-Xylene	ug/L	<0.31	20	20	20.5	22.6	103	113	30-150	9	30	
Methyl-tert-butyl ether	ug/L	<0.16	10	10	9.5	10.8	95	108	30-150	13	30	
Methylene Chloride	ug/L	<1.5	10	10	11.8	11.9	118	119	30-146	1	30	
Naphthalene	ug/L	<1.6	10	10	8.3	10.7	83	107	30-150	25	30	
o-Xylene	ug/L	<0.16	10	10	9.9	10.8	99	108	30-150	8	30	
Tetrachloroethene	ug/L	<0.17	10	10	10	10.8	100	108	30-150	7	30	
Toluene	ug/L	0.90J	10	10	10.2	10.9	93	100	30-150	6	30	
trans-1,2-Dichloroethene	ug/L	<0.24	10	10	12.2	12.1	122	121	30-150	1	30	
trans-1,3-Dichloropropene	ug/L	<0.18	10	10	9.6	10.8	96	108	30-150	11	30	
Trichloroethene	ug/L	<0.15	10	10	10.8	11.4	108	114	30-150	5	30	
Trichlorofluoromethane	ug/L	<0.23	10	10	14.1	10.8	141	108	30-150	27	30	

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461768 3461769												
Parameter	Units	10496899006	MS	MSD	MS	MSD	MS	MSD	% Rec	RPD	Max	Qual
		Result	Spike Conc.	Spike Conc.								
Vinyl chloride	ug/L	<0.092	10	10	15.9	12.1	159	121	30-150	27	30	M1
Xylene (Total)	ug/L	<0.31	30	30	30.5	33.4	102	111	30-150	9	30	
1,2-Dichloroethane-d4 (S)	%						104	106	75-125			
4-Bromofluorobenzene (S)	%						105	102	75-125			
Toluene-d8 (S)	%						101	103	75-125			

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

QC Batch: 642766 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10496731002, 10496731006, 10496731009, 10496731010

METHOD BLANK: 3461256 Matrix: Water
Associated Lab Samples: 10496731002, 10496731006, 10496731009, 10496731010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	11/04/19 12:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/04/19 12:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/04/19 12:27	
1,1-Dichloroethane	ug/L	ND	1.0	11/04/19 12:27	
1,1-Dichloroethene	ug/L	ND	1.0	11/04/19 12:27	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/04/19 12:27	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/04/19 12:27	
1,2-Dichloroethane	ug/L	ND	1.0	11/04/19 12:27	
1,2-Dichloropropane	ug/L	ND	4.0	11/04/19 12:27	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/04/19 12:27	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/04/19 12:27	
Benzene	ug/L	ND	1.0	11/04/19 12:27	
Bromodichloromethane	ug/L	ND	1.0	11/04/19 12:27	
Bromoform	ug/L	ND	4.0	11/04/19 12:27	
Bromomethane	ug/L	ND	4.0	11/04/19 12:27	
Carbon tetrachloride	ug/L	ND	1.0	11/04/19 12:27	
Chlorobenzene	ug/L	ND	1.0	11/04/19 12:27	
Chloroethane	ug/L	ND	1.0	11/04/19 12:27	
Chloroform	ug/L	ND	1.0	11/04/19 12:27	
Chloromethane	ug/L	ND	4.0	11/04/19 12:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/04/19 12:27	
cis-1,3-Dichloropropene	ug/L	ND	4.0	11/04/19 12:27	
Dibromochloromethane	ug/L	ND	1.0	11/04/19 12:27	
Dichlorodifluoromethane	ug/L	ND	1.0	11/04/19 12:27	
Ethylbenzene	ug/L	ND	1.0	11/04/19 12:27	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/04/19 12:27	
m&p-Xylene	ug/L	ND	2.0	11/04/19 12:27	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/04/19 12:27	
Methylene Chloride	ug/L	ND	4.0	11/04/19 12:27	
Naphthalene	ug/L	ND	4.0	11/04/19 12:27	
o-Xylene	ug/L	ND	1.0	11/04/19 12:27	
Tetrachloroethene	ug/L	ND	1.0	11/04/19 12:27	
Toluene	ug/L	ND	1.0	11/04/19 12:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/04/19 12:27	
trans-1,3-Dichloropropene	ug/L	ND	4.0	11/04/19 12:27	
Trichloroethene	ug/L	ND	0.40	11/04/19 12:27	
Trichlorofluoromethane	ug/L	ND	1.0	11/04/19 12:27	
Vinyl chloride	ug/L	ND	0.20	11/04/19 12:27	
Xylene (Total)	ug/L	ND	3.0	11/04/19 12:27	
1,2-Dichloroethane-d4 (S)	%	84	75-125	11/04/19 12:27	
4-Bromofluorobenzene (S)	%	101	75-125	11/04/19 12:27	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

METHOD BLANK: 3461256

Matrix: Water

Associated Lab Samples: 10496731002, 10496731006, 10496731009, 10496731010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene-d8 (S)	%.	99	75-125	11/04/19 12:27	

LABORATORY CONTROL SAMPLE: 3461257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	10	9.8	98	75-125	
1,1,2,2-Tetrachloroethane	ug/L	10	10	100	71-128	
1,1,2-Trichloroethane	ug/L	10	9.7	97	75-125	
1,1-Dichloroethane	ug/L	10	10.2	102	75-125	
1,1-Dichloroethene	ug/L	10	10.8	108	69-125	
1,2-Dibromoethane (EDB)	ug/L	10	9.4	94	75-125	
1,2-Dichlorobenzene	ug/L	10	9.8	98	75-125	
1,2-Dichloroethane	ug/L	10	8.7	87	71-125	
1,2-Dichloropropane	ug/L	10	9.4	94	72-125	
1,3-Dichlorobenzene	ug/L	10	9.9	99	75-125	
1,4-Dichlorobenzene	ug/L	10	9.6	96	75-125	
Benzene	ug/L	10	10.4	104	75-125	
Bromodichloromethane	ug/L	10	8.5	85	75-125	
Bromoform	ug/L	10	8.9	89	74-125	
Bromomethane	ug/L	10	7.3	73	30-150	
Carbon tetrachloride	ug/L	10	10.3	103	70-125	
Chlorobenzene	ug/L	10	9.9	99	75-125	
Chloroethane	ug/L	10	9.6	96	64-129	
Chloroform	ug/L	10	9.4	94	75-125	
Chloromethane	ug/L	10	10.1	101	67-125	
cis-1,2-Dichloroethene	ug/L	10	10.5	105	73-125	
cis-1,3-Dichloropropene	ug/L	10	9.2	92	75-125	
Dibromochloromethane	ug/L	10	8.7	87	75-125	
Dichlorodifluoromethane	ug/L	10	9.2	92	65-129	
Ethylbenzene	ug/L	10	9.9	99	75-125	
Hexachloro-1,3-butadiene	ug/L	10	10.6	106	66-137	
m&p-Xylene	ug/L	20	18.9	94	75-125	
Methyl-tert-butyl ether	ug/L	10	9.2	92	75-125	
Methylene Chloride	ug/L	10	9.6	96	72-125	
Naphthalene	ug/L	10	8.8	88	63-125	
o-Xylene	ug/L	10	9.6	96	75-125	
Tetrachloroethene	ug/L	10	10.5	105	75-125	
Toluene	ug/L	10	10.0	100	75-125	
trans-1,2-Dichloroethene	ug/L	10	10.9	109	70-125	
trans-1,3-Dichloropropene	ug/L	10	8.2	82	75-125	
Trichloroethene	ug/L	10	10.9	109	74-125	
Trichlorofluoromethane	ug/L	10	8.9	89	74-125	
Vinyl chloride	ug/L	10	10.1	101	71-125	
Xylene (Total)	ug/L	30	28.5	95	75-125	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

LABORATORY CONTROL SAMPLE: 3461257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%.			86	75-125	
4-Bromofluorobenzene (S)	%.			101	75-125	
Toluene-d8 (S)	%.			99	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461379 3461380

Parameter	Units	10496944003 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	12.2	12.0	122	120	30-150	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	10	10	10.1	10.7	101	107	30-150	6	30	
1,1,2-Trichloroethane	ug/L	ND	10	10	10.3	10.4	103	104	30-150	1	30	
1,1-Dichloroethane	ug/L	ND	10	10	11.4	11.5	114	115	30-150	1	30	
1,1-Dichloroethene	ug/L	ND	10	10	14.2	13.9	142	139	30-150	2	30	
1,2-Dibromoethane (EDB)	ug/L	ND	10	10	9.8	10.0	98	100	30-150	2	30	
1,2-Dichlorobenzene	ug/L	ND	10	10	10.4	10.8	104	108	30-150	4	30	
1,2-Dichloroethane	ug/L	ND	10	10	9.0	9.0	90	90	30-150	0	30	
1,2-Dichloropropane	ug/L	ND	10	10	10.6	10.6	106	106	30-150	1	30	
1,3-Dichlorobenzene	ug/L	ND	10	10	10.7	11.5	107	115	30-150	7	30	
1,4-Dichlorobenzene	ug/L	ND	10	10	10.2	11.0	102	110	30-150	8	30	
Benzene	ug/L	ND	10	10	11.6	11.6	116	116	30-150	0	30	
Bromodichloromethane	ug/L	ND	10	10	9.6	9.5	96	95	30-150	1	30	
Bromoform	ug/L	ND	10	10	9.2	9.5	92	95	30-150	3	30	
Bromomethane	ug/L	ND	10	10	7.2	7.8	72	78	30-150	8	30	
Carbon tetrachloride	ug/L	ND	10	10	13.5	13.4	135	134	30-150	1	30	
Chlorobenzene	ug/L	ND	10	10	10.8	11.0	108	110	30-150	2	30	
Chloroethane	ug/L	ND	10	10	10	9.3	100	93	30-150	7	30	
Chloroform	ug/L	ND	10	10	9.7	9.7	97	97	30-150	0	30	
Chloromethane	ug/L	ND	10	10	9.0	10.8	90	108	30-150	18	30	
cis-1,2-Dichloroethene	ug/L	ND	10	10	12.1	11.7	118	114	30-150	3	30	
cis-1,3-Dichloropropene	ug/L	ND	10	10	10.1	10.0	101	100	30-145	1	30	
Dibromochloromethane	ug/L	ND	10	10	9.2	9.5	92	95	30-150	2	30	
Dichlorodifluoromethane	ug/L	ND	10	10	10.6	10.8	106	108	30-150	2	30	
Ethylbenzene	ug/L	ND	10	10	11.2	11.6	112	116	30-150	4	30	
Hexachloro-1,3-butadiene	ug/L	ND	10	10	16.9	13.8	169	138	30-150	20	30	M1
m&p-Xylene	ug/L	ND	20	20	21.1	21.7	106	108	30-150	3	30	
Methyl-tert-butyl ether	ug/L	ND	10	10	9.4	9.7	94	97	30-150	3	30	
Methylene Chloride	ug/L	ND	10	10	10.4	10.7	104	107	30-146	3	30	
Naphthalene	ug/L	ND	10	10	8.8	9.9	88	98	30-150	11	30	
o-Xylene	ug/L	ND	10	10	10.6	11.2	106	112	30-150	6	30	
Tetrachloroethene	ug/L	ND	10	10	13.1	13.7	123	129	30-150	4	30	
Toluene	ug/L	ND	10	10	11.6	11.7	116	117	30-150	1	30	
trans-1,2-Dichloroethene	ug/L	ND	10	10	13.1	12.9	131	129	30-150	2	30	
trans-1,3-Dichloropropene	ug/L	ND	10	10	9.1	9.0	91	90	30-150	0	30	
Trichloroethene	ug/L	ND	10	10	12.7	12.9	127	129	30-150	1	30	
Trichlorofluoromethane	ug/L	ND	10	10	9.8	10	98	100	30-150	2	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461379 3461380												
Parameter	Units	10496944003 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	10	10	10.7	11.0	107	110	30-150	2	30	
Xylene (Total)	ug/L	ND	30	30	31.7	32.9	106	110	30-150	4	30	
1,2-Dichloroethane-d4 (S)	%						85	82	75-125			
4-Bromofluorobenzene (S)	%						99	102	75-125			
Toluene-d8 (S)	%						99	100	75-125			

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QUALITY CONTROL DATA

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

QC Batch:	640557	Analysis Method:	NWTPH-Dx
QC Batch Method:	EPA Mod. 3510C	Analysis Description:	NWTPH-Dx GCS LV
Associated Lab Samples:	10496731002, 10496731003, 10496731004, 10496731005, 10496731006, 10496731007, 10496731008, 10496731009, 10496731010		

METHOD BLANK: 3450566 Matrix: Water
Associated Lab Samples: 10496731002, 10496731003, 10496731004, 10496731005, 10496731006, 10496731007, 10496731008, 10496731009, 10496731010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	400	10/28/19 13:59	
Motor Oil Range	ug/L	ND	400	10/28/19 13:59	
n-Triacontane (S)	%.	82	50-150	10/28/19 13:59	
o-Terphenyl (S)	%.	78	50-150	10/28/19 13:59	

LABORATORY CONTROL SAMPLE & LCSD: 3450567		3450568								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	2000	1500	1320	75	66	50-150	12	20	
Motor Oil Range	ug/L	2000	1520	1330	76	66	50-150	14	20	
n-Triacontane (S)	%.				76	68	50-150			
o-Terphenyl (S)	%.				76	66	50-150			

SAMPLE DUPLICATE: 3450656

Parameter	Units	10499124001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	ND	246J		30	
Motor Oil Range	ug/L	ND	279J		30	
n-Triacontane (S)	%.	60	68			
o-Terphenyl (S)	%.	59	59			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 11145925 P66/ 1300 W. 12th St.
Pace Project No.: 10496731

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

H1	Analysis conducted outside the recognized method holding time.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
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.

REPORT OF LABORATORY ANALYSIS

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METHOD CROSS REFERENCE TABLE

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Parameter	Matrix	Analytical Method	Preparation Method
8260B VOC	Water	SW-846 8260B/5030B	N/A

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11145925 P66/ 1300 W. 12th St.

Pace Project No.: 10496731

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10496731002	MW-1	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731003	MW-2	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731004	MW-4	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731005	MW-5A	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731006	MW-6	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731007	MW-7	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731008	MW-8	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731009	MW-9	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731010	MW-10	EPA Mod. 3510C	640557	NWTPH-Dx	641490
10496731001	Dup-1	NWTPH-Gx	642991		
10496731002	MW-1	NWTPH-Gx	643418		
10496731003	MW-2	NWTPH-Gx	642991		
10496731004	MW-4	NWTPH-Gx	642991		
10496731005	MW-5A	NWTPH-Gx	642991		
10496731006	MW-6	NWTPH-Gx	643418		
10496731007	MW-7	NWTPH-Gx	642991		
10496731008	MW-8	NWTPH-Gx	642991		
10496731009	MW-9	NWTPH-Gx	643418		
10496731010	MW-10	NWTPH-Gx	643418		
10496731011	Trip Blank	NWTPH-Gx	642991		
10496731001	Dup-1	EPA 8260B	642287		
10496731002	MW-1	EPA 8260B	642766		
10496731003	MW-2	EPA 8260B	642287		
10496731004	MW-4	EPA 8260B	642287		
10496731005	MW-5A	EPA 8260B	642287		
10496731006	MW-6	EPA 8260B	642766		
10496731007	MW-7	EPA 8260B	642287		
10496731008	MW-8	EPA 8260B	642287		
10496731009	MW-9	EPA 8260B	642766		
10496731010	MW-10	EPA 8260B	642766		
10496731011	Trip Blank	EPA 8260B	642600		

REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Aug2019 Page 1 of 1
	Document No.: F-MN-L-213-rev.29	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt	Client Name: <u>GHD Services Inc.</u>	Project #: WO# : 10496731
Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Speedee ☐ Commercial ☐ See Exceptions	Tracking Number: <u>7475 9399 4430/4934 3732 7550</u>	PM: JMG Due Date: 11/06/19 CLIENT: GHD_WA
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: <u>0.2, 2.4</u> °C	Average Corrected Temp (no temp blank only): ☐ See Exceptions ☐ 1 Container
Correction Factor: <u>-0.2</u>	Cooler Temp Corrected w/temp blank: <u>0.0, 2.2</u> °C	

USDA Regulated Soil: ☒ N/A, water sample/Other: _____ **Date/Initials of Person Examining Contents:** ACM 10.24.19

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? ☒ 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? ☒ Yes ☐ No	8.
-Pace Containers Used? ☒ Yes ☐ No	9.
Containers Intact? ☒ Yes ☐ No	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Field Filtered Volume Received for Dissolved Tests? ☐ Yes ☐ No ☒ N/A	11. If no, write ID/ Date/Time on Container Below: ☐ See Exception
Is sufficient information available to reconcile the samples to the COC? ☒ Yes ☐ No	
Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other	
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? ☐ Yes ☐ No ☒ N/A	☐ NaOH ☐ HNO ₃ ☐ H ₂ SO ₄ ☐ Zinc Acetate
(HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	Positive for Res. ☐ Yes ☐ No ☐ See Exception
Exceptions: <u>VOA</u> , Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	Chlorine? ☐ Yes ☐ No pH Paper Lot# ☐
	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. Pace Trip Blank Lot # (if purchased): <u>228292</u>
Trip Blank Custody Seals Present? ☒ Yes ☐ No ☐ N/A	

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____ Field Data Required? ☐ Yes ☐ No

Project Manager Review: JENNI GROSS **Date:** 10/25/19

Note: Whenever there is a discrepancy affecting 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).



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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