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Shaping the Future

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GROUNDWATER MONITORING REPORT
(Third Quarter 2014)

Phillips 66 Facility No. 255353 (AOC #1396)
600 Westlake Avenue North
Seattle, Washington
Washington State Department of Ecology VCP No. NW1714

Submitted to:
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Washington State Department of Ecology
3190 160th Avenue Southeast
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Submitted on behalf of:
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Submitted by:
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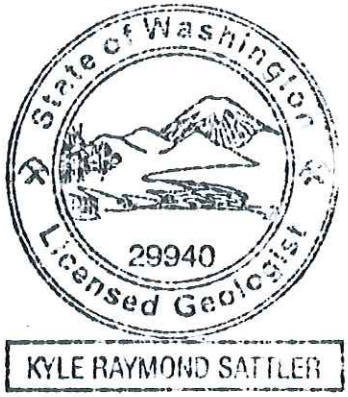
Tigard, Oregon 97223

Cardno ATC Project No. 76.75118.1396
September 8, 2014



Mark Newman
Project Scientist

Kyle Sattler, L.G.
Senior Project Manager

GROUNDWATER MONITORING REPORT
(Third Quarter 2014)
Phillips 66 Facility No. 255353 (AOC #1396)
600 Westlake Avenue North
Seattle, Washington

SITE INFORMATION:

Cardno ATC Contact Person:	Kyle Sattler
Date of previous sampling event:	11/06/13 and 11/07/13
Current remediation technique(s):	Soil Vapor Extraction/Air Sparge (Not active during monitoring and sampling event)
Ecology VCP Number:	NW1714

FIELD ACTIVITY:

Date(s) monitored and/or sampled:	07/29/14 & 07/30/14
Wells monitored:	Fourteen (MWR-1 through MWR-6, MW-41, MW-45, MW-50, MW-54, MW-209, MW-210, MW-211 and SMW-3).
Wells sampled:	Six (SMW-3, MW-41, MW-42, MW-209, MW-210, and MW-211).
Purging method:	Wells were purged prior to sampling using low flow pumping via a peristaltic pump and dedicated polyethylene tubing.
Sampling method:	Samples were collected using peristaltic pump and dedicated polyethylene tubing.

SITE HYDROGEOLOGY:

Minimum depth to groundwater (feet below top of casing [TOC]):	10.36 (MW-209)
Maximum depth to groundwater (feet below TOC):	15.72 (MW-41)
Average groundwater elevation (feet above mean sea level):	16.80
Change in average groundwater elevation since previous monitoring event (feet):	-1.12
Approximate groundwater gradient/flow direction:	Indeterminate beneath site; regionally to the north
Previous groundwater gradient/flow direction:	0.003 East

GROUNDWATER CONDITIONS (07/29/14 and 07/30/14):

Minimum dissolved phase gasoline-range hydrocarbons concentration excluding "non-detects" (micrograms per liter [µg/L]):	All wells sampled were "non-detect"
Maximum dissolved phase gasoline-range hydrocarbons concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase gasoline-range hydrocarbons concentration (µg/L) observed previous sampling event:	3,820 (MWR-5)
Minimum dissolved phase benzene concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase benzene concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase benzene concentration (µg/L) observed previous sampling event:	23.0 (MWR-5)
Minimum dissolved phase ethylbenzene concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase ethylbenzene concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase ethylbenzene concentration (µg/L) observed previous sampling event:	150 (MWR-5); all other wells sampled were "non-detect"
Minimum dissolved phase toluene concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase toluene concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase toluene concentration (µg/L) observed previous sampling event:	All wells sampled were "non-detect"
Minimum dissolved phase total xylenes concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase total xylenes concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase total xylenes concentration (µg/L) observed previous sampling event:	286 (MWR-5); all other wells sampled were "non-detect"

Minimum dissolved phase methyl tertiary-butyl ether (MTBE) concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase MTBE concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase MTBE concentration (µg/L) observed previous sampling event:	All wells sampled were "non-detect"
Minimum dissolved phase 1,2-dibromoethane (EDB) concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase EDB concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase EDB concentration (µg/L) observed previous sampling event:	All wells samples were "non-detect"
Minimum dissolved phase 1,2-dichloroethane (EDC) concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase EDC concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase EDC concentration (µg/L) observed previous sampling event:	All wells sampled were "non-detect"
Minimum dissolved phase lead concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase lead concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase lead concentration (µg/L) observed previous sampling event:	All wells sampled were "non-detect"
Minimum total lead concentration excluding "non-detects" (µg/L):	All wells sampled were "non-detect"
Maximum total lead concentration (µg/L):	All wells sampled were "non-detect"
Maximum dissolved phase lead concentration (µg/L) observed previous sampling event:	All wells sampled were "non-detect"

ADDITIONAL INFORMATION AND COMMENTS:

Monitor wells MWR-1, MWR-3 through MWR-6, and MW-45 were dry during this groundwater monitoring and sampling event. Additionally, monitor wells MWR-2 and MW-50 contained minor amounts of stagnant water (not representative of actual groundwater conditions) assumed to have accumulated in the bottom caps of the wells. Consequently, none of these wells were sampled during this event. It is Cardno ATC's technical opinion that continued dewatering in the vicinity of the site, for construction purposes, has drawn the water table downward, causing these wells (completed to depths as great as 19.5 feet below ground surface) to dry up for the first time since monitoring began.

Gasoline-range hydrocarbons, benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC) and total and dissolved lead were not detected at concentrations greater than the laboratory's method reporting limits in any of the groundwater samples collected during this sampling event. These results are consistent with the previous analytical results. Purge water generated during the July 2014 groundwater monitoring and sampling event was placed in the AS/SVE system holding tank, and treated through the liquid carbon vessels prior to discharge to the City's sewer system.

The depths to water and groundwater flow direction is likely influenced by the presence of native soil and fill materials on and off-site, the presence of subsurface hydrogeologic barriers installed during the remedial excavation activities completed in 2008, and the current construction dewatering occurring in the immediate vicinity of the Site. The groundwater flow direction beneath the site could not be determined during this event. The regional groundwater flow direction is generally toward the north.

ATTACHMENTS:

Table 1 Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Figure 1 Groundwater Conditions Map (07/29/14 and 07/30/14)

Appendix A Laboratory Analytical Data Report and Chain of Custody Document
Appendix B Field Report / Groundwater Gauging & Sampling Logs / Drum Inventory Log / MW Inspection Log

TABLE

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-41	11/05/91	**<1,000**	**<1,000**	--	**67**	<0.5	<0.5	<0.5	--	--	--	--			--	--	--	--	--
27.00	12/29/93	<100	<250	**<750**	4.6	<0.5	<0.5	<0.5	--	--	--	--			--	11.24	0.00	15.76	--
	07/14/94	<100	<250	**<750**	**10**	<0.5	<0.5	<0.5	--	--	--	--			--	10.81	0.00	16.19	--
	10/25/94	<50	**500**	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	13.69	0.00	13.31	--
	03/08/95	<50	<250	**<750**	1.6	<0.5	<0.5	<1.0	--	--	--	--			--	14.72	--	12.28	--
	06/06/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	15.02	--	11.98	--
	09/07/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	15.00	--	12.00	--
	12/08/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	16.30	--	10.70	--
	04/01/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	15.02	--	11.98	--
	06/25/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.00	--	--	--	--			--	15.07	--	11.93	--
	09/27/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.00	--	--	--	--			--	15.42	0.00	11.58	--
	03/28/97	--	--	--	--	--	--	--	--	--	--	--			--	15.27	0.00	11.73	--
	06/30/97	--	--	--	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	06/02/05	<100	<237	<474	<1	<1	<1	<2	<1	--	--	--			--	15.48	0.00	11.52	1.40
	07/26/05	<50	258[c]	**977**	<0.2	<0.2	<0.2	<0.50	<1	<0.5	--	--			--	15.88	0.00	--	5.70
36.25	11/02/05	<50	<238	<476	<0.5	<0.5	<0.5	<3.00	<1	--	--	--	--	--	--	15.89	0.00	20.36	0.80
	02/23/06	<50	<250	<500	<0.5	<0.5	<0.5	<3.00	<1	<1	1.32	--	--	--	--	15.26	0.00	20.99	--
	05/09/06	<50	<253	**<505**	<0.5	<0.5	<0.5	<3.00	<1	<1	1.56	--	--	--	--	15.47	0.00	20.78	0.57
	08/30/06	<80	<240	<481	<0.5	<0.5	<0.5	<3.00	<1	<5	<1	--	--	--	--	15.90	0.00	20.35	0.80
	12/12/06	<50	<243	<485	<0.5	<0.5	<0.5	<3.00	<1	<5	8.79	--	--	--	--	15.81	0.00	20.44	1.42
	03/07/07	<50	<263	**<526**	<0.5	<0.5	<0.5	<3.00	<1	<5	<1	--	--	--	--	15.38	0.00	20.87	0.32
	06/14/07	79.2	<236	<472	<0.5	<0.5	<0.5	<3.00	<1	<5	<1	--	--	--	--	15.45	0.00	20.80	0.53
	09/13/07	<50	<236	<472	<0.5	<0.5	<0.5	<3.00	<1	<5	2.56	--	--	--	--	15.61	0.00	20.64	0.28
	12/18/07	<50	<236	<472	<1	<1	<1	<3	<1	<1	2.73	--	--	--	--	15.46	0.00	20.79	--
	03/17/08	<50	<236	<472	**<236**	<0.5	<0.5	<0.5	<3	<1	<5	<1	--	--	<1	15.33	--	20.92	--
	06/03/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	<1	--	--	<236	15.31	0.00	20.94	--
	08/04/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	<1	--	--	<236	15.59	0.00	20.66	--
	11/04/08	<50.0	<245	<490	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00	--	--	<245	15.80	0.00	20.45	--
	02/24/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00	--	--	<240	15.60	0.00	20.65	--
	05/17/09	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	2.05	<1.00	--	--	<250	15.78	0.00	20.47	--
	08/16/09	<50	470	<480	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0	--	--	<240	16.25	0.00	20.00	--
	11/15/09	<50	<280	**<560**	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	--	--	--	--	<280	16.50	0.00	19.75	--
	02/21/10	<50.0	98.4	<379	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.8	<0.10	--	--	<75.8	15.50	0.00	20.75	--
	05/23/10	<50.0	<76.9	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.35	<0.10	--	--	<76.9	15.42	0.00	20.83	--
	08/16/10	Unable to gauge and sample; Well damaged.																	--
	11/15/10	<50.0	<77.7	<388	<1.0	1.8	<1.0	<3.0	--	<1.0	<10.0	<10.0	--	--	<77.7	15.24	0.00	21.01	--
	02/28/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--	--	--	<77.7	15.09	0.00	21.16	--
	06/14/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.51	<0.10	--	--	--	15.13	0.00	21.12	--
	08/29/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	<0.10	--	--	<84.2	15.19	0.00	21.06	--
	12/05/11	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.16	0.11	--	--	<85.1	15.32	0.00	20.93	--
	02/15/12	<50.0	<76.2	<381	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0	--	--	<76.2	15.19	0.00	21.06	--
	05/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0	--	--	<81.6	14.92	0.00	21.33	--
	08/14/12	<50.0	<88.9	<444	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0	--	--	<88.9	15.10	0.00	21.15	--
	11/20/12	<50.0	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	14.8	7.1	--	--	<100	15.19	0	21.06	--
	11/07/13	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	--	--	--	15.69	0.00	20.56	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	15.72	0.00	20.53	--

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600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-45	11/04/91	**17,000**	**2,000**	--		500	**1,000**	370	**2,300**	--	--	--			--	--	--	--	--
18.11	12/29/93	**11,000**	**1,100**	**860**		**2,900**	**760**	680	**3,000**	--	--	--			--	8.79	0.00	9.32	--
	04/07/94	**16,000**	**830**	**<750**		**2,500**	620	580	**2,500**	--	--	--			--	8.22	0.00	9.89	--
	07/14/94	**25,000**	**850**	**1,100**		**4,000**	**750**	870	**3,600**	--	--	--			--	8.39	0.00	9.72	--
	10/25/94	**19,000**	**1,000**	**<750**		**2,600**	230	920	**3,000**	--	--	--			--	9.10	0.00	9.01	--
	09/07/01 [b]	<50	375	**<606**		<0.5	<0.5	<0.5	<1	--	--	--			--	9.80	0.00	8.31	--
	10/10/01	--	--	--		--	--	--	--	--	--	--			--	NM	NM	--	--
	12/28/01	**17,300**	**2,210**	**597**		**2,130**	73.4	**1,330**	**2,970**	--	--	--			--	9.03	0.00	9.08	--
	03/08/02	**15,500**	**2,380**	**686**		**2,090**	38.4	**1,190**	**1,650**	--	--	--			--	9.12	0.00	8.99	--
	06/24/02	**5,100**	**1,920**	**761**		**1,330**	6.39	451	**235**	--	--	--			--	9.00	0.00	9.11	--
	09/26/02 [c]	**2,420**	**1,190**	**547**		394	3.41	204	**106**	--	--	--			--	10.20	0.00	7.91	--
	12/12/02	Obstructed by vehicle														NM	NM	--	--
	03/13/03	**3,590**	**2,050**	<500		219	133	99.4	**368**	--	--	--			--	8.05	0.00	10.06	--
	06/12/03	**10,700**	**1,470**	**<575**		**1,350**	10.8	**954**	**631**	--	--	--			--	9.16	0.00	8.95	--
	09/19/03	583	<298	**<595**		1.93	2.25	5.65	**38.6**	--	--	--			--	10.68	0.00	7.43	--
	01/14/04	360	<118	<236		4.97	<0.5	2.48	1.01	--	--	--			--	10.12	0.00	7.99	0.40
	03/30/04	303	234	<240		<1	<1	<1	<2	--	--	--			--	10.19	0.00	7.92	0.84
	06/22/04	151	365	358		<1	<1	<1	<2	--	--	--			--	10.34	0.00	7.77	0.70
	09/29/04	270	<251	**<503**		<0.5	1.5	0.62	7.3	--	--	--			--	10.40	0.00	7.71	0.90
	12/29/04	207	<249	<498		2.90	<1	<1	9.04	--	--	--			--	9.40	0.00	8.71	0.30
	03/17/05	235	<239	<477		5.61	1.08	2.49	19.1	--	--	--			--	9.44	0.00	8.67	1.20
	06/01/05	793	283 [f,j]	<491 [j]		17.1	37.9	13.9	**83.8**	<1	--	--			--	8.62	0.00	9.49	1.30
	07/25/05	564	<250	**<500**		18.6	14.6	16.7	**113.2**	<1	7.51	--			--	8.98	0.00	--	3.20
27.52	11/01/05	100	<240	<481		<0.200	<0.5	<0.5	<1	<2	--	--			--	9.81	0.00	17.71	NM [o]
	02/21/06	484	<275	**<549**		5.13	<0.5	7.65	**36.5**	<1	3.77	1.30			--	8.83	0.00	18.69	--
	05/08/06	198	**540**	**<500**		1.06	<0.5	0.980	2.70	<1	1.69	<1			--	8.79	0.00	18.73	1.00
	08/30/06	104	<248	<495		<0.5	<0.5	<0.500	<3	<1	<5	<1			--	9.84	0.00	17.68	3.03
	12/12/06	**25,900**	**662**	<485		64.1	23.8	330	**5,020**	<5	**278**	10.8			--	9.13	0.00	18.39	1.49
	03/06/07	**1,680**	<260	**<521**		<0.5	<0.5	22.0	**139**	<1	54	<1			--	8.75	0.00	18.77	0.30
	06/15/07	**12,500**	439	<481 [r]		16.8	2.77	178	**1,590**	<1	**330**	1.77			--	8.85	0.00	18.67	0.24
	09/13/07	**23,400**	328	<481		65.3	16.9	303	**3,740**	<1	**246**	6.85			--	9.07	0.00	18.45	0.15
	12/17/07	Unable to sample, well under water														--	--	--	--
	03/18/08	<50	<236	<472	**<236**	<0.5	<0.5	<0.5	<3	<1	<5	<1			<1	8.30	0.00	19.22	--
	06/03/08	Unable to sample, well under water														--	--	--	--
	08/05/08	64.4	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	1.39	<1			<236	8.90	0.00	18.62	--
	11/03/08	Well under water, unable to sample.														--	--	--	--
	02/22/09	53.2	<236	<472	<0.500	<0.500	<0.500	<3.00	--	15.0	<1.00	<1.00			<236	11.44	0.00	8.38	--
	05/17/09	176.0	428	<476	<0.500	<0.500	<0.500	<3.00	<1.00	97.9	<1.00	<1.00			431	16.67	0.00	10.85	--
	08/16/09	250	**570**	<480	<0.50	<0.50	<0.50	<2.0	<1.0	100	<5.0	<5.0			**1200**	16.92	0.00	10.60	--
	11/15/09	**1000**	**2,200 [Y]**	<480	3.9	2.2	11	28	<1.0	14	9.2	<1			**2,100 [Y]**	9.12	0.00	18.40	--
	02/21/10	745	**1,160**	**832**	3.9	<1.0	34	23.2	--	14.5	4.7	<0.10			**566**	8.46	0.00	19.06	--
	05/23/10	398	**692**	**449**	1.3	<1.0	14.5	4	--	7.9	3.1	<0.10			**665**	8.15	0.00	19.37	--
	08/16/10	319	<77.7	<388	<1.0	<1.0	5.8	<3.0	--	7.5	7.2	0.37			177	8.80	0.00	18.72	--
	11/16/10	**1,880**	106	<388	**5.8**	1.3	43.1	212	--	28.4	<10.0	<10.0			**547**	8.15	0.00	19.37	--
	02/28/11	**10,500**	347	<388	**17.6**	3.3	172.0	479	--	150.0	<10.0	--			**2,750**	8.66	0.00	18.86	--
	06/14/11	**3,230**	137	<396	1.7	<1.0	46.8	34	--	--	1.8	<0.10			**--**	8.85	0.00	18.67	--
	08/29/11	**1,790**	119	<421	<1.0	<1.0	5.1	<3.0	--	36.5	0.4	<0.10			489	8.62	0.00	18.90	--
	12/05/11	**19,900**	298	<426	**20.5**	5.7	327	**2,240**	--	**213**	2.1	0.34			**6,960**	7.80	0.00	19.72	--
	02/15/12	**14,000**	219	<404	**11.6**	2.7	203	631	--	**206.0**	<10.0	<10.0			**2,470**	9.05	0.00	18.47	--
	05/15/12	**3,920**	211	<421	<5.0	<5.0	77.0	122	--	75.4	<10.0	<10.0			**1,330**	8.14	0.00	19.38	--
	08/14/12	**1,600**	206	<430	<1.0	<1.0	7.3	<3.0	--	33.7	<10.0	<10.0			**676**	8.78	0.00	18.74	--
	11/20/12	**4,130**	**1,900**	<100	**6.0**	2.8	105	612	--	99.3	3.7	<3.0			**2,500**	4.37	--	23.15	
	11/06/13	281	<400	<400	<1.0	1.3	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.50	0.00	Note Z	--
28.06	07/29/14	Well was dry																	

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-50	10/10/01	**8,970**	**2,200**	<606		674	221	382	**779**	--	--	--				11.11	0.00	8.69	--
19.80	12/28/01	**23,200**	**3,460**	<500		1,630	3,690	991	**4,480**	--	--	--				10.45	0.00	9.35	--
	03/08/02	Obstructed by vehicle														NM	NM	--	--
	06/24/02	**8,290**	**1,970**	556		414	23	314	**2,010**	--	--	--				10.84	0.00	8.96	--
	09/26/02	Obstructed by vehicle														NM	NM	--	--
	12/12/02	Obstructed by vehicle														NM	NM	--	--
	03/13/03	**12,200**	**1,810**	<588		733	127	523	**1,100**	--	--	--				9.93	0.00	9.87	--
	06/12/03	**6,450**	**1,740**	<500		448	13.7	299	**286**	--	--	--				11.27	0.00	8.53	--
	09/19/03	**4,440**	<250	<500		51.7	315	26.1	**462**	--	--	--				12.05	0.00	7.75	--
	01/14/04	**29,700**	**1,970**	<258		308	502	312	**6,180**	--	--	--				11.81	0.00	7.99	4.10
	03/30/04	**3,330**	**867**	<241		21.8	<5	21.9	**226.4**	--	--	--				11.65	0.00	8.15	1.69
	06/22/04	**2,130**	**874**	<237		14.2	2.4	27.9	**85.11**	--	--	--				11.79	0.00	8.01	1.10
	09/29/04	**3,600**	**1,330**	<502		92	62	100	**520**	--	--	--				11.71	0.00	8.09	0.20
	12/29/04	**1,570**	**745**	<611		9.69	3.88	9.98	**27.62**	--	--	--				11.01	0.00	8.79	1.50
	03/17/05	**1,420**	**1,060**	506		5.82	2.41	10.6	**30.59**	--	--	--				11.26	0.00	8.54	0.60
	06/01/05	**1,710**	**528** [g]	<503		20.3	10.7	42.3	**84.7**	8.01	--	--				10.58	0.00	9.22	1.30
	07/25/05	**1,500**	<250	<500		16.8	3.23	36.9	**50.11**	4.29	7.04	--				10.90	0.00	--	1.70
29.32	11/01/05	634	380 [g]	<472		15.9	2.49	0.52	2.19	5.62	--	--				10.60	0.00	18.72	NM [o]
	02/21/06	**1,430**	<272	<543		139	15.4	16.7	**28.20**	<5	7.05	1.33				10.56	0.00	18.76	--
	05/08/06	**1,550** [j]	**1,870**	<485		28.4	2.13	24.7	**35.06**	3.88	9.48	<1				10.81	0.00	18.51	<1.00
	08/29/06	264	<248	<495		8.55	0.780	6.87	7.26	4.23	<5	<1				11.58	0.00	17.74	0.47
	12/12/06	**1,650**	<243	<485		80.9	2.75	18.9	41.9	3.93	**17.4**	1.62				10.61	0.00	18.71	0.09
	03/08/07	**1,650**	<240	<481		51.3	1.06	14.1	33.6	2.92	**35.9**	<1				10.53	0.00	18.79	0.30
	06/15/07	**1390** [J]	333	<495 [r]		28.0	1.00	6.46	5.20	1.85	**40.5**	<1				10.74	0.00	18.58	0.35
	09/13/07	439	<240	<481		4.36	<0.5	0.650	<3	1.89	10.3	<1				10.90	0.00	18.42	0.13
	12/18/07	886	<236	<472		1.10	<1	4	<3	<1	6.9	2.94				9.63	0.00	19.69	--
	03/18/08	77.6	<236	<472	<236	1.02	0.58	1.85	<3	<1	<5	<1			<1	11.39	0.00	17.93	--
	06/03/08	Well covered by trailer truck, unable to sample														--	--	--	--
	08/05/08	**1,260**	<236	<472	3.94	0.50	8.42	9.76	2.06	<5	4	<1			494	11.28	0.00	18.04	--
	11/03/08	**1,250**	<236	<472	<0.500	<0.500	3.69	4.84	<1.00	<5.00	<1.00	<1.00			478	10.79	0.00	18.53	--
	11/18/08	Thought to be Decommissioned														--	--	--	--
	11/15/09	630	**2,900** [Y]	<490	2.3	0.74	0.65	<2.0	<1.0	660 [H]	1.1	<1			**3000**	11.88	0.00	17.44	--
	02/21/10	<50.0	**1,280**	457	<1.0	<1.0	<1.0	4.9	--	62.8	0.61	<0.10			392	11.02	0.00	18.30	--
	05/23/10	57.4	**1320**	433	<1.0	<1.0	<1.0	<3.0	--	60.4	0.92	<0.10			**1080**	10.72	0.00	18.60	--
	08/16/10	<50.0	158	<392	<1.0	<1.0	<1.0	<3.0	--	33.4	0.63	0.18			181	11.07	0.00	18.25	--
	11/16/10	<50.0	102	<388	<1.0	<1.0	<1.0	<3.0	--	35.6	<10.0	<10.0			102	10.43	0.00	18.89	--
	02/28/11	74.8	102	<388	<1.0	<1.0	<1.0	<3.0	--	19.2	<10.0	--			114	10.75	0.00	18.57	--
	06/14/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.52	<0.10			--	10.06	0.00	19.26	--
	08/29/11	65.1	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	15	0.19	0.12			88.2	10.65	0.00	18.67	--
	12/05/11	71.6	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	10.2	0.53	<0.10			<86.0	10.15	0.00	19.17	--
	02/15/12	85.0	110	<426	<1.0	<1.0	<1.0	<3.0	--	20.5	<10.0	<10.0			154	11.35	0.00	17.97	--
	05/15/12	97.9	<80.0	<400	<1.0	<1.0	<1.0	<3.0	--	16.1	<10.0	<10.0			87.3	10.36	0.00	18.96	--
	08/14/12	138	117	<430	<1.0	<1.0	<1.0	<3.0	--	11.4	<10.0	<10.0			143	10.75	0.00	18.57	
	11/20/12	183	180	<100	<1.0	<1.0	<1.0	<3.0	--	6.5	6.4	<3.0			250	8.88	0.00	20.44	
	11/06/13	185	**540**	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			**530**	12.55	0.00	16.77	--
	07/29/14	Well contained approximately 0.05 foot of water in well cap; well was not sampled.																	

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-54	06/16/05	206	130[f]	410	4.82	<1	2.09	10.27	<1	--	--	--			--	9.09	0.00	18.91	1.40
28.00	07/25/05	177	<250	<500	**5.26**	0.280	0.680	3.11	<1	0.990	--	--			--	9.51	0.00	18.49	0.20
	11/18/05	75.8	<243	<485	0.560	0.530	4.19	10.8	<1	--	--	--			--	9.73	0.00	18.27	0.39
	02/23/06	<50	**695**	<472	<0.5	<0.5	<0.5	<0.5	<1	<1	1.04	--			--	9.44	0.00	18.56	--
	05/08/06	<50	328[p]	<500	<0.5	<0.5	<0.5	<3	<1	<1	1.41	--			--	9.31	0.00	18.69	0.97
	08/29/06	<80	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	10.33	0.00	17.67	0.53
	12/12/06	<50	<248	<495	<0.5	<0.5	<0.5	<3	<1	<5	2.69	--			--	9.69	0.00	18.31	1.99
	03/06/07	<50	<263	**<526**	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	9.40	0.00	18.60	0.83
	06/15/07	<50	<243	<485[r]	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	9.25	0.00	18.75	0.38
	09/13/07	<50	<245	<490	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	9.59	0.00	18.41	0.20
	12/18/07	<50	<236	<472	<1	<1	<1	<3	<1	<1	1.13	--			--	8.53	0.00	19.47	
	03/18/08	<50	<236	<472	**<236**	<0.5	<0.5	<0.5	<3	<1	<5	<1			<1	9.06		18.94	--
	06/03/08	Unable to sample, well under water														--	--	--	--
	08/05/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	2.37	<1			<236	9.68	0.00	18.32	--
	11/03/08	<50	<236	<472	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	8.64	<1.00			<236	8.72	0.00	19.28	--
	02/22/09	Well inaccessible: buried under garbage containers.														--	--	--	--
	05/17/09	Well inaccessible: buried under garbage containers.														--	--	--	--
	08/16/09	280	<240	<480	<0.50	<0.50	1.4	2.5	<1.0	<5.0	<5.0	<5.0			310	11.78	0.00	16.22	--
	11/15/09	<50	<240	<470	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	1.8	<1			<240	9.78	0.00	18.22	--
	02/21/10	<50.0	178	434	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.1	0.24			<75.8	9.20	0.00	18.80	--
	05/23/10	<50.0	144	384	<1.0	<1.0	<1.0	<3.0	--	<1.0	4.4	0.12			92.8	8.64	0.00	19.36	--
	08/16/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	5.7	0.21			<77.7	9.30	0.00	18.70	--
	11/17/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	8.76	0.00	19.24	--
	02/28/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	9.23	0.00	18.77	--
	06/14/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	--	1.2	<0.10			--	8.50	0.00	19.50	--
	08/29/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.58	<0.10			<84.2	9.13	0.00	18.87	--
	12/05/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.70	0.18			<84.2	8.90	0.00	19.10	--
	02/16/12	<50.0	<75.8	<379	<1.0	<1.0	<1.0	<3.0	--	2.4	<10.0	<10.0			<75.8	9.98	0.00	18.02	--
	05/15/12	<50.0	<75.5	<377	<1.0	<1.0	<1.0	<3.0	--	4.0	<10.0	<10.0			<75.5	8.38	0.00	19.62	--
	08/14/12	<50.0	<87.9	<440	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<87.9	9.40	0.00	18.60	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	6.89	0	21.11	--
	11/06/13	281	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.43	0.00	Note Z	--
28.05	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	14.81	0.00	13.24	--

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Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-209	11/05/08	<50.0	<238	<476	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<238	9.22	0.00	17.78	--
27.00	02/23/09	Inaccessible														--	--	--	--
	05/17/09	Inaccessible														--	--	--	--
	08/17/09	Inaccessible														--	--	--	--
	11/17/09	Inaccessible														--	--	--	--
	02/22/10	<50.0	251	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.3	<0.10			<77.7	9.30	0.00	17.70	--
	05/24/10	<50.0	192	<396	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.1	<0.10			137	8.04	0.00	18.96	--
	08/18/10	<50.0	86.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.3	<0.10			<77.7	8.86	0.00	18.14	--
	11/16/10	<50.0	85.1	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	9.45	0.00	17.55	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	9.26	0.00	17.74	--
	06/15/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.19	<0.10			--	8.10	0.00	18.90	--
	08/30/11	<50.0	<80.0	<400	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.35	0.17			--	9.09	0.00	17.91	--
	12/06/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.12	0.18			<82.5	9.50	0.00	17.50	--
	02/15/12	<50.0	103	<412	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<82.5	9.70	0.00	17.30	--
	05/16/12	<50.0	<79.2	<396	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<79.2	8.08	0.00	18.92	--
	08/15/12	<50.0	117	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			85.6	8.80	0.00	18.20	
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.00	0.00	18.00	
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	9.66	0.00	17.34	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	10.36	0.00	16.64	--
MW-210	11/05/08	<50.0	<243	<485	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<243	8.60	0.00	18.10	--
26.70	02/25/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00			<240	5.90	0.00	20.80	--
	05/17/09	<50.0	<245	<490	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<245	8.61	0.00	18.09	--
	08/17/09	<50	<240	<280	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0			<240	9.60	0.00	17.10	--
	11/17/09	<50	<240	<490	<0.50	<0.50	<0.50[H]	<2.0	<1.0	<5.0	1.3	<1			<240	8.15	0.00	18.55	--
	02/22/10	<50.0	154	<381	<1.0	<1.0	<1.0	5.5	--	<1.0	0.31	0.21			<76.2	8.73	0.00	17.97	--
	05/24/10	<50.0	190	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	.45	<0.10			150	7.65	0.00	19.05	--
	08/18/10	<50.0	<78.4	<392	<1.0	<1.0	<1.0	<3.0	--	<1.0	.36	<0.10			<78.4	8.54	0.00	18.16	--
	11/16/10	<50.0	85.1	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	8.81	0.00	17.89	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	8.77	0.00	17.93	--
	06/15/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	--	0.27	<0.10			--	7.73	0.00	18.97	--
	08/30/11	<50.0	<87.0	<435	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	<0.10			<87.0	8.67	0.00	18.03	--
	12/06/11	<50.0	<86.2	<412	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	0.22			<82.5	8.95	0.00	17.75	--
	02/15/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<82.5	9.20	0.00	17.50	--
	05/16/12	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<83.3	7.64	0.00	19.06	--
	08/15/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	8.43	0.00	18.27	--
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	6.42	0.00	20.28	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	9.42	0.00	17.28	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	10.72	0.00	15.98	--
MW-211	11/05/08	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<240	7.23	0.00	19.32	--
26.55	02/25/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00			<240	8.19	0.00	18.39	--
	05/17/09	<50.0	<236	<472	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	4.72	<1.00			<236	9.10	0.00	17.45	--
	08/17/09	<50	<240	<490	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0			<240	9.74	0.00	16.81	--
	11/17/09	<50	<240	<480	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<1	<1			<240	8.24	0.00	18.31	--
	02/22/10	<50.0	146	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.42	<0.10			<76.9	7.91	0.00	18.64	--
	05/24/10	<50.0	115	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	.46	.29			85.1	7.56	0.00	18.99	--
	08/18/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	.34	.13			<77.7	8.42	0.00	18.13	--
	11/15/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	8.37	0.00	18.18	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	8.54	0.00	18.01	--
	06/15/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	--	0.12	<0.10			--	5.61	0.00	20.94	--
	08/30/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	<0.10			<84.2	8.48	0.00	18.07	--
	12/06/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<10.0	<0.10	0.15			<83.3	8.83	0.00	17.72	--
	02/15/12	<50.0	<75.5	<377	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<75.5	9.10	0.00	17.45	--
	05/16/12	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	4.0	<10.0	<10.0			<83.3	7.65	0.00	18.90	--
	08/15/12	<50.0	<88.9	<444	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<88.9	8.42	0.00	18.13	--
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	6.70	0.00	19.85	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	9.45	0.00	17.10	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0097	<1.0	--	12.24	0.00	14.31	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
SMW-3	03/08/95	<50	400	**2,500**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.25	0.00	--	--
29.03	06/06/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.23	0.00	--	--
	09/07/95	<50	300	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.89	0.00	--	--
	12/08/95	<50	300	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.36	0.00	--	--
	04/01/96	**34,000**	**4,000**	**2,300**	**6,400**	42	**2,100**	**3,000**	--	--	--	--			--	10.07	0.00	--	--
	06/25/96	<50	320	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.19	0.00	--	--
	09/27/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	11.12	0.00	--	--
	03/28/97	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.19	0.00	--	--
	06/30/97[b]	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.14	0.00	--	--
	09/08/97[b]	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.85	0.00	--	--
	12/19/97[b]	<50	521	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.67	0.00	--	--
	03/16/98[b]	50.1	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.28	0.00	--	--
	06/26/98[b]	<50	500	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	8.87	0.00	--	--
	09/23/98[b]	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.88	0.00	--	--
	12/17/98[b]	<50	293	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.22	0.00	--	--
	03/31/99[b]	<50	360	**<750**	<0.5	<0.5	0.53	4.97	--	--	--	--			--	9.01	0.00	--	--
	06/30/99[b]	<50	639	**<750**	<0.5	0.609	<0.5	1.32	--	--	--	--			--	9.55	0.00	--	--
	12/08/99[b]	<50	<484	**<1,450**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	8.75	0.00	--	--
	06/20/00[b]	<50	<250	**<750**	<0.5	0.585	<0.5	1.86	--	--	--	--			--	8.89	0.00	--	--
	12/19/00	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	06/15/01[b]	<50	368	**<866**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	7.23	0.00	--	--
	06/26/01	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/07/01[b]	<50	385	**<571**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.19	0.00	--	--
	10/10/01	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	12/28/01	<50	**1,160**	<500	<0.5	0.902	<0.5	2.78	--	--	--	--			--	8.89	0.00	--	--
	03/08/02	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	06/24/02	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/26/02	<100	<250	<500	1.83	<2	<1.00	<1.5	--	--	--	--			--	10.32	0.00	--	--
	12/12/02	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	03/13/03	<50	<250	<500	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.99	0.00	--	--
	06/12/03	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/19/03	<50	<287	**<575**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	11.00	0.00	--	--
	01/14/04	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	03/30/04	<100	<119	<238	<1	<1	<1	<2	--	--	--	--			--	10.42	0.00	--	2.10
	06/22/04	--	--	--	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/29/04	56	<242	<483	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	11.67	0.00	--	0.10
	12/29/04	--	--	--	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	03/17/05	<100	<248	<495	<1	<1	<1	<2	--	--	--	--			--	11.68	0.00	--	1.20
	06/01/05	<100	<249	<498	<1	<1	<1	<2	<1	--	--	--			--	10.62	0.00	--	1.30
	07/25/05	<50	<250	<500	<0.2	<0.2	<0.2	<0.5	<1	<0.5	--	--			--	11.19	0.00	--	1.20
29.03	11/08/05	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	--	--	--			--	11.77	0.00	17.26	NM [o]
	02/24/06	<50	<278	**<556**	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	--			--	11.84	0.00	17.19	--
	08/30/06	<80	<243	<485	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--				
	10/11/06	<50	<243	<485	<0.5	<0.5	<0.5	<3	<1	<1	<1	--			--	10.70	0.00	18.33	0.17
	12/13/06	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	12.14	0.00	16.89	1.05
	03/08/07	<50	<250	<500	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	11.68	0.00	17.35	1.44
	06/13/07	Not Accessible														--	--	--	--
	09/12/07	Not Accessible														--	--	--	--
	12/17/07	Not Accessible														--	--	--	--
	03/17/08	Unable to locate														--	--	--	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
SMW-3	06/02/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	<1			<236	9.05	0.00	19.98	--
contd.	08/05/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	4.54	<1			<236	7.64	0.00	21.39	--
27.40	11/04/08	<50.0	<238	<476	<0.500	<0.500	<0.500	<3.00		<5.00	5.88	<1.00			<238	9.70	0.00	17.70	--
	02/25/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00			<240	9.90	0.00	17.50	--
	05/17/09	Not Accessible														--	--	--	--
	08/17/09	<50	<250	<490	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0			<250	10.10	0.00	17.30	--
	11/17/09	<50	<240	<490	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	1.2	<1			<240	9.53	0.00	17.87	--
	02/22/10	<50.0	107	**605**	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.26	<0.10			<76.2	9.90	0.00	17.50	--
	05/24/10	<50.0	255	**510**	<1.0	<1.0	<1.0	<3.0	--	<1.0	.42	<0.10			100	8.50	0.00	18.90	--
	08/18/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	.39	<0.10			<77.7	9.29	0.00	18.11	--
	11/16/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	10.11	0.00	17.29	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	9.85	0.00	17.55	--
	06/15/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	--	0.21	<0.10			--	8.55	0.00	18.85	--
	08/30/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.13	0.14			<86.0	9.63	0.00	17.77	--
	12/06/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.13	0.38			<82.5	10.13	0.00	17.27	--
	02/15/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<82.5	10.22	0.00	17.18	--
	05/16/12	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	2.9	<10.0	<10.0			<83.3	8.64	0.00	18.76	--
	08/15/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	9.30	0.00	18.10	--
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.16	0.00	18.24	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.10	0.00	17.30	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	10.85	0.00	16.55	--
MWR-1	11/17/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	9.75	0.00	20.16	--
29.91	03/03/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	10.23	0.00	19.68	--
	06/15/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	--	1.5	<0.10			--	10.28	0.00	19.63	--
	08/30/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.51	<0.10			--	10.97	0.00	18.94	--
	12/06/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.68	0.62			<83.3	10.80	0.00	19.11	--
	02/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<81.6	10.51	0.00	19.40	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<81.6	10.20	0.00	19.71	--
	08/15/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	10.65	0.00	19.26	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	8.82	0.00	21.09	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	12.04	0.00	17.87	--
	07/29/14	Well was dry																	
MWR-2	11/17/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	11.7	<10.0			<77.7	8.08	0.00	20.17	--
28.25	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	16.0	--			<77.7	8.61	0.00	19.64	--
	06/14/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	--	3.1	<0.10			--	8.67	0.00	19.58	--
	08/29/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.35	0			<87.0	9.32	0.00	18.93	--
	12/06/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<10.0	1.3	<0.10			<86.0	9.09	0.00	19.16	--
	02/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0			<81.6	8.97	0.00	19.28	--
	05/15/12	<50.0	<75.8	<379	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<75.8	8.62	0.00	19.63	--
	08/15/12	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<84.2	9.05	0.00	19.20	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	7.32	0.00	20.93	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.33	0.00	17.92	--
	07/29/14	Well contained 0.65 foot of water in well cap; well was not sampled.																	

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MWR-3	11/17/10	<50.0	83.6	<385	<1.0	1.4	<1.0	<3.0	--	<1.0	<10.0	<10.0			**1,140**	9.82	0.00	19.94	--
29.76	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	10.17	0.00	19.59	--
	06/15/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.74	<0.10			--	10.18	0.00	19.58	--
	08/30/11	<50.0	<88.9	<444	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.38	<0.10			<88.9	10.87	0.00	18.89	--
	12/06/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<10.0	<0.10	<0.10			<86.0	10.63	0.00	19.13	--
	02/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0			<81.6	10.51	0.00	19.25	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<81.6	10.22	0.00	19.54	--
	08/15/12	<50.0	<87.0	<435	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<87.0	10.56	0.00	19.20	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.86	0.00	19.90	
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	11.52	0.00	18.24	--
	07/29/14	Well was dry																	
MWR-4	11/17/10	141	<76.9	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			140	8.98	0.00	19.90	--
28.88	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			132	9.44	0.00	19.44	--
	06/14/11	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	--	0.63	<0.10			--	9.32	0.00	19.56	--
	08/29/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.18	0			<82.5	10.02	0.00	18.86	--
	12/06/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<10.0	<0.10	0.29			<83.3	9.78	0.00	19.10	--
	02/16/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0			<82.5	10.72	0.00	18.16	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<81.6	9.32	0.00	19.56	--
	08/15/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<82.5	9.82	0.00	19.06	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.31	0.00	19.57	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	11.02	0.00	17.86	--
	07/29/14	Well was dry																	
MWR-5	11/17/10	**15,900**	423	<388	**199**	371	592	**3,710**	--	157	<10.0	<10.0			**5,080**	7.91	0.00	19.36	--
27.27	02/28/11	**21,800**	368	<388	**195**	444	642	**3,430**	--	143	<10.0	--			**4,650**	8.60	0.00	18.67	--
	06/14/11	**22,700**	323	<400	**192**	383	**719**	**4,340**	--	--	4.1	0			**--**	7.82	0.00	19.45	--
	08/29/11	**35,400**	478	<408	**244**	271	**861**	**4,500**	--	**338**	0.95	0.62			**7,060**	8.50	0.00	18.77	--
	12/05/11	**30,500**	235	<412	**211**	450	**1,140**	**5,960**	--	**193**	1.3	0.52			**9,580**	7.75	0.00	19.52	--
	02/16/12	**9,490**	160	<396	**68.7**	9.1	218	**1,090**	--	88.2	<10.0	<10.0			**2,330**	8.93	0.00	18.34	--
	05/15/12	**27,900**	298	<404	**181**	160	**813**	**4,830**	--	**226**	<10.0	<10.0			**4,650**	8.01	0.00	19.26	--
	08/14/12	**7,720**	329	<440	**60.5**	3.80	244	**1,280**	--	81.3	<10.0	<10.0			**2,560**	8.62	0.00	18.65	--
	11/20/12	**35,500**	**15,500**	<100	**306**	471	**1,520**	**10,700**	--	**342**	5.8	<3.0			**20,500**	5.11	0.00	22.16	--
	11/06/13	**3,820**	<400	<400	**23.0**	<1.0	150	286	<1.0	--	<10.0	<10.0			**1,100**	9.45	0.00	17.82	--
	07/29/14	Well was dry																	
MWR-6	11/16/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	10.10	0.00	19.15	--
29.25	02/28/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	10.89	0.00	18.36	--
	06/14/11	<50.0	<80.8	<404	<1.0	<1.0	<1.0	<3.0	--	--	1.3	<0.10			--	10.11	0.00	19.14	--
	08/29/11	<50.0	<87.0	<435	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.3	<0.10			--	10.75	0.00	18.50	--
	12/05/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.54	0.11			<82.5	9.48	0.00	19.77	--
	02/16/12	<50.0	<75.5	<377	<1.0	<1.0	<1.0	<3.0	--	2.8	<10.0	<10.0			<75.5	11.90	0.00	17.35	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<81.6	10.26	0.00	18.99	--
	08/14/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	10.45	0.00	18.80	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.59	0.00	19.66	
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	11.77	0.00	17.48	--
	07/29/14	Well was dry																	
																			--
MTCA Method A Cleanup Level for Groundwater		**1000/800[k]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**160**	**15**	**15**			**500**	**--**	**--**	**--**	**--**

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data

Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue N.
Seattle, Washington

NOTES:

µg/L = micrograms per liter
mg/L = milligrams per liter
TOC = Relative top of casing elevation
DTW = Depth to water
SPH = Separate-phase hydrocarbon thickness
GWE = Groundwater table elevation relative to DTW data; corrected for SPH where applicable using a specific gravity of 0.80
<n = Below the detection limit
"--" = Not analyzed, sampled, or reported
NM = Not Measured
TPH as Gasoline - Analysis by Northwest Method NWTPH-Gx
TPH as Diesel and Oil - Analysis by Northwest Method NWTPH-Dx
BTEX Compounds - Analysis by EPA Method 8020A, 8021B or 8260B
Total Lead Analysis via EPA Method 6020.
Values in **BOLD** are detectable concentrations exceeding the MTCA Method A groundwater cleanup level.

[a] Top of casing elevations shown prior to November 2005 based on information provided by a previous consultant. All TOC elevations were re-surveyed between November 1 and November 15, 2005 relative to N.A.V.D. 1988 using a City of Seattle benchmark by Delta Environmental Consultants.

[b] Well was not purged prior to sample collection.

[c] TPH-Diesel and TPH-Oil did not resemble chromatogram used for quantitation.

[d] Well casing was trimmed down during monument replacement in December 2004. New TOC elevation surveyed on January 27, 2005.

[e] Quality control failed due to laboratory error. Quantitative analytical results not reported.

[f] Contaminant does not appear to be "typical" product.

[g] Chromatogram suggests that this may be overlap from the gasoline range.

[h] Chromatogram suggests that this may be overlap from the motor oil range.

[H] Anlaysis was performed outside of the method specified holding time

[j] Surrogate recovery outside advisory QC limits due to matrix interference.

[k] MTCA Method A Cleanup Level for TPH-Gasoline is 1,000 ug/L if benzene is not detectable in the groundwater sample. Otherwisxe, the action level is 800 ug/L.

[l] Samples analyzed using Northwest Method NWTPH-Dx without acid/silica gel cleanup.

[m] Surogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present.

[n] Detected hydrocarbons due mainly to cleanup artifact. There is no diesel present.

[o] DO meter was unavailable.

[p] The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

[q] Analyte had a high bias in the associated calibration verification standard.

[r] Laboratory Control Sample and/or Sample Duplicate recovery was above the laboratory control limits. Analyte not detected, data not impacted.

[s] Dilluted due to matrix effect.

[t] The total hydrocarbon result in this sample is primarily due to an individual compound eluting in the volatile hydrocarbon range.

[u] Due to laboratory error, the samples were not analyzed for EPA 8260B compounds.

[v] Possible field error.

[w] DTW not recorded prior to sampling. Approximate value based on last quarter's initial DTW and when sampling began

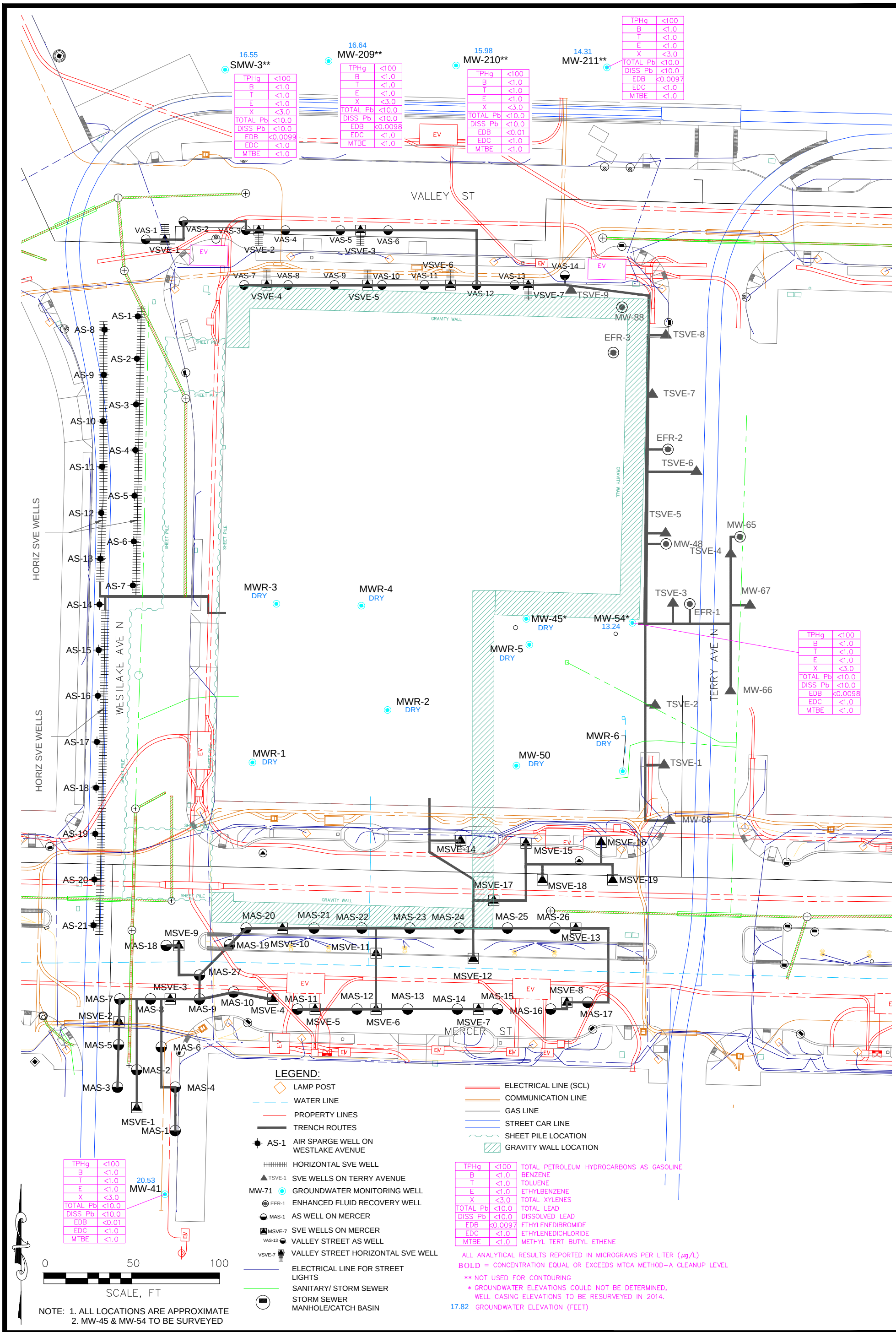
[x] The benzene and ethyl benzene concentrations were outside the calibration range of the instrument. A new concentration was measured during a second run, but this run was outside of the holding time for the sample. The laboratory still considers this value to be more accurate than the original estimated value listed in the lab report.

[Y] The Chromatogram response resembles a typical fuel pattern

[z] Well casings for MW-45 and MW-54 were compromised and repaired during installation of remediation conveyance piping. Wells were re-surveyed in July 2014. 2014.

"--[u]" = Due to laboratory error, the samples were not analyzed for EPA 8260B compounds.

FIGURE



GROUNDWATER CONDITIONS MAP
(07/29/14 - 07/30/14)

PHILLIPS 66 FACILITY NO. 255353 (AOC 1396)
600 WESTLAKE AVENUE N
SEATTLE, WA

PROJECT NUMBER:	76.75118.1396	DATE:	8/27/14
APPROVED BY:	KS	DRAWN BY:	BK

FIGURE 1

Cardno ATC
Shaping the Future
6347 Seaview Avenue NW
Seattle, Washington 98107
Ph: (206) 781-1449 *** Fax: (206) 781-1543

APPENDIX A

LABORATORY ANALYTICAL DATA REPORT AND CHAIN OF CUSTODY DOCUMENT

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

August 13, 2014

Kyle Sattler
Cardno ATC
7070 SW Fir Loop
Suite 100
Portland, OR 97223

RE: Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Dear Kyle Sattler:
Enclosed are the analytical results for sample(s) received by the laboratory on July 31, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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
Project Manager

Enclosures

cc: Keith Fox, Cardno ATC

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

CERTIFICATIONS

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia DHHR #:9952C

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

SAMPLE SUMMARY

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10276026001	**SMW-3**	Water	07/28/14 13:20	07/31/14 09:45
10276026002	**MW-209**	Water	07/29/14 14:00	07/31/14 09:45
10276026003	**MW-210**	Water	07/29/14 14:40	07/31/14 09:45
10276026004	**MW-211**	Water	07/29/14 15:20	07/31/14 09:45
10276026005	**MW-54**	Water	07/30/14 11:00	07/31/14 09:45
10276026006	**MW-41**	Water	07/30/14 09:50	07/31/14 09:45

Pace Analytical Services, Inc.
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(612)607-1700

SAMPLE ANALYTE COUNT

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10276026001	**SMW-3**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6010C	IP	1	PASI-M
		6010C Met	IP	1	PASI-M
		EPA 8260	SH2	9	PASI-M
10276026002	**MW-209**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6010C	IP	1	PASI-M
		6010C Met	IP	1	PASI-M
		EPA 8260	SH2	9	PASI-M
10276026003	**MW-210**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6010C	IP	1	PASI-M
		6010C Met	IP	1	PASI-M
		EPA 8260	SH2	9	PASI-M
10276026004	**MW-211**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6010C	IP	1	PASI-M
		6010C Met	IP	1	PASI-M
		EPA 8260	SH2	9	PASI-M
10276026005	**MW-54**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6010C	IP	1	PASI-M
		6010C Met	IP	1	PASI-M
		EPA 8260	SH2	9	PASI-M
10276026006	**MW-41**	EPA 8011	XV1	2	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 6010C	IP	1	PASI-M
		6010C Met	IP	1	PASI-M
		EPA 8260	SH2	9	PASI-M

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

ANALYTICAL RESULTS

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Sample: SMW-3 **Lab ID: 10276026001** Collected: 07/28/14 13:20 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.0099	1	08/08/14 08:15	08/08/14 18:13	106-93-4	
Surrogates								
4-Bromofluorobenzene (S)	72	%.	70-130	1	08/08/14 08:15	08/08/14 18:13	460-00-4	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		08/06/14 19:28		
Surrogates								
a,a,a-Trifluorotoluene (S)	96	%.	70-125	1		08/06/14 19:28	98-08-8	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	08/07/14 10:09	08/12/14 13:07	7439-92-1	
6010C MET ICP, Lab Filtered	Analytical Method: 6010C Met Preparation Method: EPA 3010							
Lead, Dissolved	ND	ug/L	10.0	1	08/04/14 17:34	08/12/14 11:38	7439-92-1	
8260 MSV UST	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	ug/L	1.0	1		08/09/14 12:24	107-06-2	
Benzene	ND	ug/L	1.0	1		08/09/14 12:24	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		08/09/14 12:24	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/09/14 12:24	1634-04-4	
Toluene	ND	ug/L	1.0	1		08/09/14 12:24	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		08/09/14 12:24	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%.	75-125	1		08/09/14 12:24	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		08/09/14 12:24	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		08/09/14 12:24	460-00-4	

Sample: MW-209 **Lab ID: 10276026002** Collected: 07/29/14 14:00 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.0098	1	08/11/14 08:47	08/12/14 14:16	106-93-4	
Surrogates								
4-Bromofluorobenzene (S)	36	%.	70-130	1	08/11/14 08:47	08/12/14 14:16	460-00-4	S2
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		08/06/14 20:49		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	70-125	1		08/06/14 20:49	98-08-8	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	08/07/14 10:09	08/12/14 13:42	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Sample: MW-209 **Lab ID: 10276026002** Collected: 07/29/14 14:00 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP, Lab Filtered	Analytical Method: 6010C Met Preparation Method: EPA 3010							
Lead, Dissolved	ND	ug/L	10.0	1	08/04/14 17:34	08/12/14 12:05	7439-92-1	
8260 MSV UST	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	ug/L	1.0	1		08/09/14 12:40	107-06-2	
Benzene	ND	ug/L	1.0	1		08/09/14 12:40	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		08/09/14 12:40	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/09/14 12:40	1634-04-4	
Toluene	ND	ug/L	1.0	1		08/09/14 12:40	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		08/09/14 12:40	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%.	75-125	1		08/09/14 12:40	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		08/09/14 12:40	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		08/09/14 12:40	460-00-4	

Sample: MW-210 **Lab ID: 10276026003** Collected: 07/29/14 14:40 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.010	1	08/11/14 08:47	08/12/14 14:43	106-93-4	
Surrogates								
4-Bromofluorobenzene (S)	21	%.	70-130	1	08/11/14 08:47	08/12/14 14:43	460-00-4	S2
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		08/07/14 10:08		
Surrogates								
a,a,a-Trifluorotoluene (S)	96	%.	70-125	1		08/07/14 10:08	98-08-8	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	08/07/14 10:09	08/12/14 13:47	7439-92-1	
6010C MET ICP, Lab Filtered	Analytical Method: 6010C Met Preparation Method: EPA 3010							
Lead, Dissolved	ND	ug/L	10.0	1	08/04/14 17:34	08/12/14 12:19	7439-92-1	
8260 MSV UST	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	ug/L	1.0	1		08/09/14 13:13	107-06-2	
Benzene	ND	ug/L	1.0	1		08/09/14 13:13	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		08/09/14 13:13	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/09/14 13:13	1634-04-4	
Toluene	ND	ug/L	1.0	1		08/09/14 13:13	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		08/09/14 13:13	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%.	75-125	1		08/09/14 13:13	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		08/09/14 13:13	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		08/09/14 13:13	460-00-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Sample: MW-211 **Lab ID: 10276026004** Collected: 07/29/14 15:20 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.0097	1	08/11/14 08:47	08/12/14 15:09	106-93-4	
Surrogates								
4-Bromofluorobenzene (S)	63	%.	70-130	1	08/11/14 08:47	08/12/14 15:09	460-00-4	S2
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		08/06/14 20:09		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	70-125	1		08/06/14 20:09	98-08-8	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	08/07/14 10:09	08/12/14 13:56	7439-92-1	
6010C MET ICP, Lab Filtered	Analytical Method: 6010C Met Preparation Method: EPA 3010							
Lead, Dissolved	ND	ug/L	10.0	1	08/04/14 17:34	08/12/14 12:23	7439-92-1	
8260 MSV UST	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	ug/L	1.0	1		08/09/14 13:29	107-06-2	
Benzene	ND	ug/L	1.0	1		08/09/14 13:29	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		08/09/14 13:29	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/09/14 13:29	1634-04-4	
Toluene	ND	ug/L	1.0	1		08/09/14 13:29	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		08/09/14 13:29	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	75-125	1		08/09/14 13:29	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		08/09/14 13:29	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125	1		08/09/14 13:29	460-00-4	

Sample: MW-54 **Lab ID: 10276026005** Collected: 07/30/14 11:00 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.0098	1	08/11/14 08:47	08/12/14 15:36	106-93-4	
Surrogates								
4-Bromofluorobenzene (S)	64	%.	70-130	1	08/11/14 08:47	08/12/14 15:36	460-00-4	S2
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		08/06/14 20:29		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	70-125	1		08/06/14 20:29	98-08-8	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	08/07/14 10:09	08/12/14 14:01	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Sample: MW-54 **Lab ID: 10276026005** Collected: 07/30/14 11:00 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP, Lab Filtered	Analytical Method: 6010C Met Preparation Method: EPA 3010							
Lead, Dissolved	ND	ug/L	10.0	1	08/04/14 17:34	08/12/14 12:28	7439-92-1	
8260 MSV UST	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	ug/L	1.0	1		08/09/14 13:46	107-06-2	
Benzene	ND	ug/L	1.0	1		08/09/14 13:46	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		08/09/14 13:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/09/14 13:46	1634-04-4	
Toluene	ND	ug/L	1.0	1		08/09/14 13:46	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		08/09/14 13:46	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%.	75-125	1		08/09/14 13:46	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		08/09/14 13:46	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	1		08/09/14 13:46	460-00-4	

Sample: MW-41 **Lab ID: 10276026006** Collected: 07/30/14 09:50 Received: 07/31/14 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.010	1	08/11/14 08:47	08/12/14 16:03	106-93-4	
Surrogates								
4-Bromofluorobenzene (S)	14	%.	70-130	1	08/11/14 08:47	08/12/14 16:03	460-00-4	S2
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		08/07/14 09:47		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	70-125	1		08/07/14 09:47	98-08-8	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	08/07/14 10:09	08/12/14 14:04	7439-92-1	
6010C MET ICP, Lab Filtered	Analytical Method: 6010C Met Preparation Method: EPA 3010							
Lead, Dissolved	ND	ug/L	10.0	1	08/04/14 17:34	08/12/14 12:33	7439-92-1	
8260 MSV UST	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	ug/L	1.0	1		08/09/14 14:03	107-06-2	
Benzene	ND	ug/L	1.0	1		08/09/14 14:03	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		08/09/14 14:03	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		08/09/14 14:03	1634-04-4	
Toluene	ND	ug/L	1.0	1		08/09/14 14:03	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		08/09/14 14:03	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%.	75-125	1		08/09/14 14:03	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		08/09/14 14:03	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		08/09/14 14:03	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

QC Batch: GCV/12415 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

METHOD BLANK: 1751365 Matrix: Water
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	08/06/14 19:08	
a,a,a-Trifluorotoluene (S)	%.	95	70-125	08/06/14 19:08	

LABORATORY CONTROL SAMPLE & LCSD: 1751366 1751367

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1050	1010	105	101	75-125	4	20	
a,a,a-Trifluorotoluene (S)	%.				102	97	70-125			

MATRIX SPIKE SAMPLE: 1755256

Parameter	Units	10275537004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	12000	20000	34400	112	52-150	
a,a,a-Trifluorotoluene (S)	%.				108	70-125	pH

SAMPLE DUPLICATE: 1755255

Parameter	Units	10276026002 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	97	98	2		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

QC Batch: MPRP/48072 Analysis Method: EPA 6010C
QC Batch Method: EPA 3010 Analysis Description: 6010C Water
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

METHOD BLANK: 1754232 Matrix: Water
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	10.0	08/12/14 12:58	

LABORATORY CONTROL SAMPLE: 1754233

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	1000	956	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1754234 1754235

Parameter	Units	10276026001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	1000	1000	937	915	94	92	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

QC Batch: MPRP/47964 Analysis Method: 6010C Met
QC Batch Method: EPA 3010 Analysis Description: 6010C Water Dissolved
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

METHOD BLANK: 1750962 Matrix: Water
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead, Dissolved	ug/L	ND	10.0	08/12/14 11:29	

LABORATORY CONTROL SAMPLE: 1750963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	1000	931	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1750964 1750965

Parameter	Units	10276026001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead, Dissolved	ug/L	ND	1000	1000	925	940	92	94	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

QC Batch: MSV/28097 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

METHOD BLANK: 1754881 Matrix: Water
Associated Lab Samples: 10276026001, 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	08/09/14 11:00	
Benzene	ug/L	ND	1.0	08/09/14 11:00	
Ethylbenzene	ug/L	ND	1.0	08/09/14 11:00	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/09/14 11:00	
Toluene	ug/L	ND	1.0	08/09/14 11:00	
Xylene (Total)	ug/L	ND	3.0	08/09/14 11:00	
1,2-Dichloroethane-d4 (S)	%.	96	75-125	08/09/14 11:00	
4-Bromofluorobenzene (S)	%.	102	75-125	08/09/14 11:00	
Toluene-d8 (S)	%.	101	75-125	08/09/14 11:00	

LABORATORY CONTROL SAMPLE: 1754882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.6	98	75-125	
Benzene	ug/L	20	19.9	99	75-125	
Ethylbenzene	ug/L	20	19.6	98	75-125	
Methyl-tert-butyl ether	ug/L	20	18.7	93	75-125	
Toluene	ug/L	20	19.1	96	75-125	
Xylene (Total)	ug/L	60	60.5	101	75-125	
1,2-Dichloroethane-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE SAMPLE: 1757875

Parameter	Units	10276026001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	22.3	111	68-128	
Benzene	ug/L	ND	20	22.2	111	75-129	
Ethylbenzene	ug/L	ND	20	21.4	107	75-128	
Methyl-tert-butyl ether	ug/L	ND	20	22.5	112	74-128	
Toluene	ug/L	ND	20	21.1	105	75-129	
Xylene (Total)	ug/L	ND	60	66.0	110	75-129	
1,2-Dichloroethane-d4 (S)	%.				106	75-125	
4-Bromofluorobenzene (S)	%.				99	75-125	
Toluene-d8 (S)	%.				100	75-125	

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QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

SAMPLE DUPLICATE: 1757876

Parameter	Units	10276026002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%.	106	105	0		
4-Bromofluorobenzene (S)	%.	100	101	1		
Toluene-d8 (S)	%.	99	99	0		

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QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

QC Batch: OEXT/26006 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10276026001

METHOD BLANK: 1755629 Matrix: Water
Associated Lab Samples: 10276026001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.010	08/08/14 14:42	
4-Bromofluorobenzene (S)	%.	102	70-130	08/08/14 14:42	

LABORATORY CONTROL SAMPLE & LCSD: 1755630 1755631

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.12	0.12	108	113	60-140	4	20	
4-Bromofluorobenzene (S)	%.				93	97	70-130			

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

QC Batch: OEXT/26030 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

METHOD BLANK: 1757057 Matrix: Water
Associated Lab Samples: 10276026002, 10276026003, 10276026004, 10276026005, 10276026006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.010	08/12/14 12:56	
4-Bromofluorobenzene (S)	%.	87	70-130	08/12/14 12:56	

LABORATORY CONTROL SAMPLE & LCSD: 1757058 1757059

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.11	0.11	0.12	101	106	60-140	5	20	
4-Bromofluorobenzene (S)	%.				99	104	70-130			

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AOC-1396-P66 Westlake/Mercer
Pace Project No.: 10276026

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10276026001	**SMW-3**	EPA 8011	OEXT/26006	EPA 8011	GCSV/13775
10276026002	**MW-209**	EPA 8011	OEXT/26030	EPA 8011	GCSV/13796
10276026003	**MW-210**	EPA 8011	OEXT/26030	EPA 8011	GCSV/13796
10276026004	**MW-211**	EPA 8011	OEXT/26030	EPA 8011	GCSV/13796
10276026005	**MW-54**	EPA 8011	OEXT/26030	EPA 8011	GCSV/13796
10276026006	**MW-41**	EPA 8011	OEXT/26030	EPA 8011	GCSV/13796
10276026001	**SMW-3**	NWTPH-Gx/8021	GCV/12415		
10276026002	**MW-209**	NWTPH-Gx/8021	GCV/12415		
10276026003	**MW-210**	NWTPH-Gx/8021	GCV/12415		
10276026004	**MW-211**	NWTPH-Gx/8021	GCV/12415		
10276026005	**MW-54**	NWTPH-Gx/8021	GCV/12415		
10276026006	**MW-41**	NWTPH-Gx/8021	GCV/12415		
10276026001	**SMW-3**	EPA 3010	MPRP/48072	EPA 6010C	ICP/20465
10276026002	**MW-209**	EPA 3010	MPRP/48072	EPA 6010C	ICP/20465
10276026003	**MW-210**	EPA 3010	MPRP/48072	EPA 6010C	ICP/20465
10276026004	**MW-211**	EPA 3010	MPRP/48072	EPA 6010C	ICP/20465
10276026005	**MW-54**	EPA 3010	MPRP/48072	EPA 6010C	ICP/20465
10276026006	**MW-41**	EPA 3010	MPRP/48072	EPA 6010C	ICP/20465
10276026001	**SMW-3**	EPA 3010	MPRP/47964	6010C Met	ICP/20425
10276026002	**MW-209**	EPA 3010	MPRP/47964	6010C Met	ICP/20425
10276026003	**MW-210**	EPA 3010	MPRP/47964	6010C Met	ICP/20425
10276026004	**MW-211**	EPA 3010	MPRP/47964	6010C Met	ICP/20425
10276026005	**MW-54**	EPA 3010	MPRP/47964	6010C Met	ICP/20425
10276026006	**MW-41**	EPA 3010	MPRP/47964	6010C Met	ICP/20425
10276026001	**SMW-3**	EPA 8260	MSV/28097		
10276026002	**MW-209**	EPA 8260	MSV/28097		
10276026003	**MW-210**	EPA 8260	MSV/28097		
10276026004	**MW-211**	EPA 8260	MSV/28097		
10276026005	**MW-54**	EPA 8260	MSV/28097		
10276026006	**MW-41**	EPA 8260	MSV/28097		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical
www.pacelabs.com

10276026

Page: of

1742770

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Cardno ATC	Report To: Kyle. Saffler	Attention:
Address:	Copy To: Mark Newman	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: 766-7396	Pace Project Manager: Jenni Gross
Requested Due Date/TAT:	Project Number: 76.7548.1396	Pace Profile #: 33332 #3

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: 6x BTEX EDB EDC MTBE	Dissolved Pb Lab Filter	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SMW-3	SL	G	7/29/14	13:20													Y	Y		001
2	MW-209			7/28/14	14:00													Y	Y		002
3	MW-210			7/28/14	14:40													Y	Y		003
4	MW-211			7/28/14	15:20													Y	Y		004
5	MW-54			7/30/14	11:00													Y	Y		005
6	MW-41			7/30/14	9:50													Y	Y		006
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Please use date/time on COC for MW-54. Dissolved Pb will be lab filtered	Cardno ATC	7/30/14	12:34	FACE	7-30-14	12:34	4.9	Y	N	Y
				Pace	7/31/14	945	0.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mark Newman

SIGNATURE of SAMPLER: _____ DATE Signed (MM/DD/YY): 7/30/14

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical®	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Feb2014 Page 1 of 1
	Document No.: F-MN-L-213-rev.09	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Cardno ATL

Project #: WO#: 10276026

10276026

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client

☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other: _____

Tracking Number: 5779 5331 8735

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: _____ Temp Blank? ☐ Yes ☒ No

Thermom. Used: ☐ B88A9130516413 ☐ B88A912167504 ☒ B88A9132521491 Type of Ice: ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.1 Cooler Temp Corrected (°C): 0.1 Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C Correction Factor: True Date and Initials of Person Examining Contents: DN 7/31/14

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐	7.
Sufficient Volume?	☒ Yes	☐ No	☐	8.
Correct Containers Used?	☒ Yes	☐ No	☐	9.
-Pace Containers Used?	☒ Yes	☐ No	☐	
Containers Intact?	☒ Yes	☐ No	☐	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☒ No	☒	11. DN 7/31/14 Lab filter needed
Sample Labels Match COC?	☒ Yes	☐ No	☐	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked?	☒ Yes	☐ No	☐ N/A	13. ☒ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☒ Yes	☐ No	☐ N/A	Sample # 1-6
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☒ No		Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	☐ Yes	☒ No	☐ N/A	14.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased): _____				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ Date: 8/1/14

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

APPENDIX B

FIELD REPORT/GROUNDWATER GAUGING & SAMPLING LOGS

Cardno ATC Shaping the Future	**Field Report**	FLD-100 Revision 0.0 Jan-13

ATC Branch: Seattle	Date: 7/29/14	Page 1 of
ATC Representative(s): Mark Neuman	Project: Phillips 66 AOC #1396	
Role: Scientist	Location: Westlake and Mercer Ave. Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.751181396	Task No:
Scope of Work:	Weather:	Temperature:
X Monitoring ___ Assessment ___ Remediation ___ Closure	Contractor:	

Time:	Comments:
7:30	Depart office for 600 Westlake Ave in Seattle, WA (Project Site).
8:00	Arrive at main lot of project site, conduct Health and Safety meeting and check in with GLY construction.
8:30	Begin gauging all wells (except MW-41). MWR-2 is buried behind dewatering tanks. Multiple wells are dry, presumably due to dewatering activities at adjacent construction site.
12:00	Finish gauging all wells, including those along Lake Union Park. Call Simon Payne of cardno ATC to request assistance in groundwater monitoring. Pick up supplies to sample off-site.
12:30	Simon Payne arrives at site, Conduct Health and Safety meeting.
12:50	Mob equipment by ~~foot~~ to SMW-3.
13:00	Begin sampling wells by Lake Union: SMW-3, MW-209, MW-210, MW-211
15:30	Finish sampling and mob equipment back to enclosed project site.
15:50	Begin purging MW-54
16:10	Begin sampling MW-54, however wells runs dry during sampling. Conduct survey of well MW-54 along with MW-45:
	MW-54: ~~5.555~~ ~~5.135~~ 5.44 Benchmark = MWR-5
	MW-45: ~~5.545~~ ~~5.125~~ 5.43
17:00	Decide to sample MW-54 on 7/30/14
17:10	Depart site for office.

Equipment Used:		
Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Field Report

FLD-100
Revision 0.0
Jan-13

ATC Branch: Seattle	Date: 7/30/14	Page 1 of 1
ATC Representative(s): Mark Newman	Project: Phillips 66 AOC #1396	
Role: Geologist	Location: Westlake and Mercer Ave. Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.751181396	Task No:
Scope of Work:	Weather:	Temperature:
☑ Monitoring ___ Assessment ___ Remediation ___ Closure	Contractor:	

Time:	Comments:
8:30	Cardno ATC arrives at project site. Conduct Health and
	Safety meeting. Wait for Traffic Control Services. (TCS)
9:00	TCS sets up traffic control on Westlake Ave to allow
	access to MW-41.
9:30	Begin purging MW-41
9:50	Collect MW-41
10:10	TCS begins tearing down traffic control. Cardno mobs
	to project site.
11:00	Collect MW-54, was purged on 7/29/14.
11:30	Finish sampling, begin decon and pack up.
12:00	Depart site for office. PACE will pick up Samples
	from Cardno office.

Equipment Used:		
Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Monitor Well Gauging Log

FLD-102
Revision 0.0
Jul-08

ATC Branch: Seattle
Date: 7/29/14
Page 1 of 1

ATC Representative(s):
Mark Newman
Contact Information: 206-781-1449

Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA
Project No: 76.75118.1396
Task No: —
Weather: Sunny
Temperature: 80

Water Level Meter Model/ID: Envriotech Water Level Meter
Interface Probe Model/ID: —

Well ID	Casing Diameter (inches) / Type	Time of Well Cap Removal*	Time of Gauging*	Depth To LNAPL (feet)	Depth To Water (feet)	LNAPL Thickness (feet)	Total Well Depth (feet)	Other (DTW, DO, ORP, Temp, etc)
SMW-3	2"	11:00	11:01	—	10.85	—	14.05	—
MW-209		11:10	11:11	—	10.36	—	19.50	
MW-210		11:20	11:21	—	10.72	—	19.20	
MW-211		11:35	11:36	—	12.24	—	20.00	
MW-50		10:00	10:01	—	19.30 dry	—	19.35	could not sample
MW-45		10:15	10:16	—	Dry	—	19.50	could not sample
MW-41		9:20	9:21	—	15.72	—	19.50	
MWR-1		8:35	8:36	—	Dry	—	17.50	could not sample
MWR-2		8:40	8:41	—	15.55	—	16.20	could not sample
MWR-3		8:50	8:51	—	~~17.~~ Dry	—	17.10	
MWR-4		8:55	8:56	—	Dry	—	16.20	
MWR-5		9:20	9:21	—	Dry	—		
MWR-6		9:30	9:31	—	Dry	—	16.50	could not sample
MW-54		9:40	9:41	—	14.81	—	19.20	

Comments:

Notes:

* If top of screen is submerged, allow at least 15 minutes for well equilibration following well cap removal.
All measurements to be reported to nearest 0.01 ft.

ID = Identification.
LNAPL = Light Non-Aqueous Phase Liquid.
Sheen = Discontinuous, non-measurable thickness of LNAPL (less than 0.01 ft).
Trace = Continuous, non-measurable thickness of LNAPL.

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 7/29/14	Page of
ATC Representative(s): M. Neuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
M. Neuman SMW-3	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump Y Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow Y Micro Purge ____ Intake Depth (feet below TOC) 12.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ____ Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): (2") 4" 6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 14.05
Depth to Water (DTW)(feet): 10.85	Water Column (WC)(feet): 3.20
LNAPL Thickness (ft): —	Purging Start Time: 13:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
13:10	10.96	0.10	23.05	732	Clear	0.99	8.39	-279.9	
13:13	10.99	0.13	22.87	729	"	0.99	8.34	-279.6	
13:16	11.04	0.16	22.68	725	"	0.98	8.28	-279.0	
13:19	11.07	0.19	22.68	719	"	0.96	8.24	-279.8	

Sample Data

Sample ID: SMW-3	Time of Sample: 13:20	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
9-40ml VOAs		N	HCl	8260 VOCs
2- PE 250ml		N	HNO_3	Pb

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 11.07	Approximate Flow Rate (GPM): 0.01
Recovery Type: Y Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 7/29/14	Page of
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-209	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump Y Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow Y Micro Purge ____ Intake Depth (feet below TOC) 12.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ____ Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): ____

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): ____	Total Well Depth (feet): 19.50
Depth to Water (DTW)(feet): 10.36	Water Column (WC)(feet): 9.14
LNAPL Thickness (ft): ____	Purging Start Time: 13:40

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
13:50	10.42	0.10	20.48	~~1.54~~ 1041	Clear	1.54	9.15	-285.9	
13:53	10.48	0.13	20.64	1049	"	1.37	9.13	-287.2	
13:56	10.50	0.16	20.69	1055	"	1.30	9.12	-289.0	
13:59	10.52	0.19	20.72	1064	"	1.23	9.10	-288.6	

Sample Data

Sample ID: MW-209	Time of Sample: 14:00	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
9-40ml VOA		N	HCl	8260 VOCs
2-250ml PE		N/Y	HNO3	Pb

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 10.52	Approximate Flow Rate (GPM): 0.01
Recovery Type: Y Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 7/29/14	Page of
ATC Representative(s): M. Neuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-210	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ✓ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow ✓ Micro Purge ____ Intake Depth (feet below TOC) 12.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ____ Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.20
Depth to Water (DTW)(feet): 10.72	Water Column (WC)(feet): 8.48
LNAPL Thickness (ft): —	Purging Start Time: 14:20

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
14:30	10.91	0.10	21.31	693	Clear	1.26	8.49	-259.8	
14:33	10.93	0.13	21.36	693	"	1.19	8.50	-262.4	
14:36	10.97	0.16	21.39	694	"	1.13	8.50	-264.4	
14:39	11.00	0.19	21.42	694	"	1.08	8.51	-262.4	

Sample Data

Sample ID: MW-210	Time of Sample: 14:40	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
9-40ml VOAs		N	HCl	8260 VOCs
2-250ml PE		N/F	HNO_3	Pb

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 11.00	Approximate Flow Rate (GPM): 0.01
Recovery Type: ✓ Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 7/29/14	Page of
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-21	Contractor: N/A	
	Weather: Sunny	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ____ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 14.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information				Purging Calculations
Casing Diameter (Circle):	(2")	4"	6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot):	(0.16)	0.65	1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 20.00
Depth to Water (DTW)(feet): 12.24	Water Column (WC)(feet): 7.76
LNAPL Thickness (ft): —	Purging Start Time: 15:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
15:10	12.41	0.10	20.97	893	Clear	1.17	8.77	-292.8	
15:13	12.49	0.13	21.13	893	"	1.17	8.74	-293.3	
15:16	12.59	0.16	21.25	895	"	1.13	8.73	-295.0	
16:19	12.63	0.19	21.38	896	"	1.09	8.71	-295.4	

Sample Data

Sample ID: MW-21	Time of Sample: 15:20	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
9-40 ml VOAs		N	HCl	8260 VOCs
2-250 ml PE		N	HNO_3	Pb

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.63	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 7/29/14	Page of
ATC Representative(s): M. Neumann	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-54	Contractor: N/A	
	Weather: Sunny	Temperature: 85

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ✓ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow ✓ Micro Purge ____ Intake Depth (feet below TOC) ____

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ✓ Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): (2") 4" 6" Other	Casing Volumes (CV): ____
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet):	Total Well Depth (feet): 19.20
Depth to Water (DTW)(feet): 14.81	Water Column (WC)(feet): 4.39
LNAPL Thickness (ft):	Purging Start Time: 15:50

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
16:00	14.91	0.10	21.69	730	Clear	1.76	8.21	-94.4	
16:03	14.92	0.13	21.86	725	"	1.56	8.17	-96.8	
16:06	14.96	0.16	21.84	725	"	1.48	8.14	-97.5	
16:09	14.99	0.19	21.85	721	"	1.36	8.09	-98.5	

Sample Data

Sample ID: MW-54	Time of Sample: 16:10	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
9-40ml VOAs		N	HCl	60, VOCs
2-250ml PE		N/Y	HNO_3	PB

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 14.99	Approximate Flow Rate (GPM): 0.01
Recovery Type: ✓ Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: well purged dry during sampling
Sampled on 7/30/14, 11:00

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 7/30/14	Page 1 of 1
ATC Representative(s): M. Newmark	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-41	Contractor: N/A	
	Weather: clear	Temperature: 75

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump ✓ Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow ✓ Micro Purge ____ Intake Depth (feet below TOC) ____

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ✓ Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.50
Depth to Water (DTW)(feet): 15.72	Water Column (WC)(feet): 3.78
LNAPL Thickness (ft): —	Purging Start Time: 9:30

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
9:40	16.03	0.10	18.09	599	Clear		7.73	-189.6	
9:43	16.23	0.13	18.05	901	"		7.73	-194.7	
9:46	16.31	0.18	18.05	928	"		7.74	-192.7	
9:49	16.45	0.19	17.99	935	"		7.74	-199.6	

Sample Data

Sample ID: MW-41	Time of Sample: 9:50	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
2x 40ml VOAs		N	HCl	6010, VOCs
2x 250ml PE		Y/N	HNO_3	PB

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 16.45	Approximate Flow Rate (GPM): 0.01
Recovery Type: ✓ Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: