NW2070

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Lynnwood

GROUNDWATER MONITORING REPORT – FIRST QUARTER 2009

FORMER JIFFY LUBE SERVICE STATION
6808 196TH STREET SOUTHWEST
LYNNWOOD, WASHINGTON

SAP CODE	171152
INCIDENT NO.	97605410
AGENCY NO.	27496218
VCP NO.	NW2070

entered CP 4-6-09

Prepared by:
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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell).

1.1 SITE INFORMATION

Site Address	6808 196th Street Southwest, Lynnwood
Site Use	Former Jiffy Lube Service Station
Shell Project Manager	Carol Compagna
CRA Project Manager	Justin Foslien
Lead Agency and Contact	WDOE, Carrie Pederson
Agency Case No.	27496218
VCP No.	NW2070
Shell SAP Code:	171152
Shell Incident No.	97605410

No agency correspondence on record

2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

2.1 CURRENT QUARTER'S ACTIVITIES

Blaine Tech Services, Inc. (Blaine) gauged and sampled wells according to the established monitoring program for this site.

Absorbent socks used to remove separate phase hydrocarbon (SPH) from monitoring were installed at MW-3, MW-4, MW-5 and MW-8 in November 2008.

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

2.2 CURRENT QUARTER'S FINDINGS

Groundwater Flow Direction	Estimated to the southwest
Hydraulic Gradient	0.031 feet/foot
Depth to Water	6.10 to 10.16 feet below top of well casing

2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

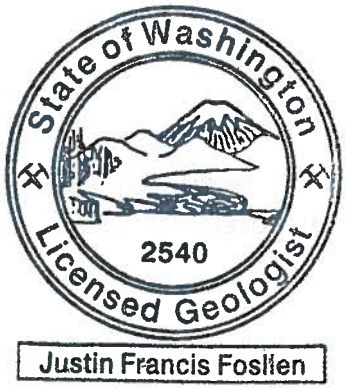
Blaine will gauge and sample wells during the first month of the third quarter of 2009, according to the established monitoring program for this site. The absorbent socks will be disposed of and replaced with new ones each quarter.

2.4 DISCUSSION

Wells MW-1 through MW-10 were gauged for the depth of water on January 6, 2009. All site wells were sampled except MW-3, MW-4 and MW-5, which contained SPH. The groundwater sample from well MW-2 contained concentrations of total petroleum hydrocarbons (TPH) in the gasoline range (TPHg), benzene and ethylbenzene above the Washington State Department of Ecology Model Toxic Control Act (MTCA) Method A cleanup levels. The groundwater sample from well MW-8 had concentrations of TPHg, benzene, TPH in the diesel range (TPHd), toluene and total xylene that exceeded the MTCA Method A cleanup level. Groundwater collected from well MW-10 contained TPHg, benzene, ethylbenzene, toluene and total xylenes which exceeded the MTCA

Method A cleanup level. All other analyte concentrations were below the MTCA Method A cleanup levels.

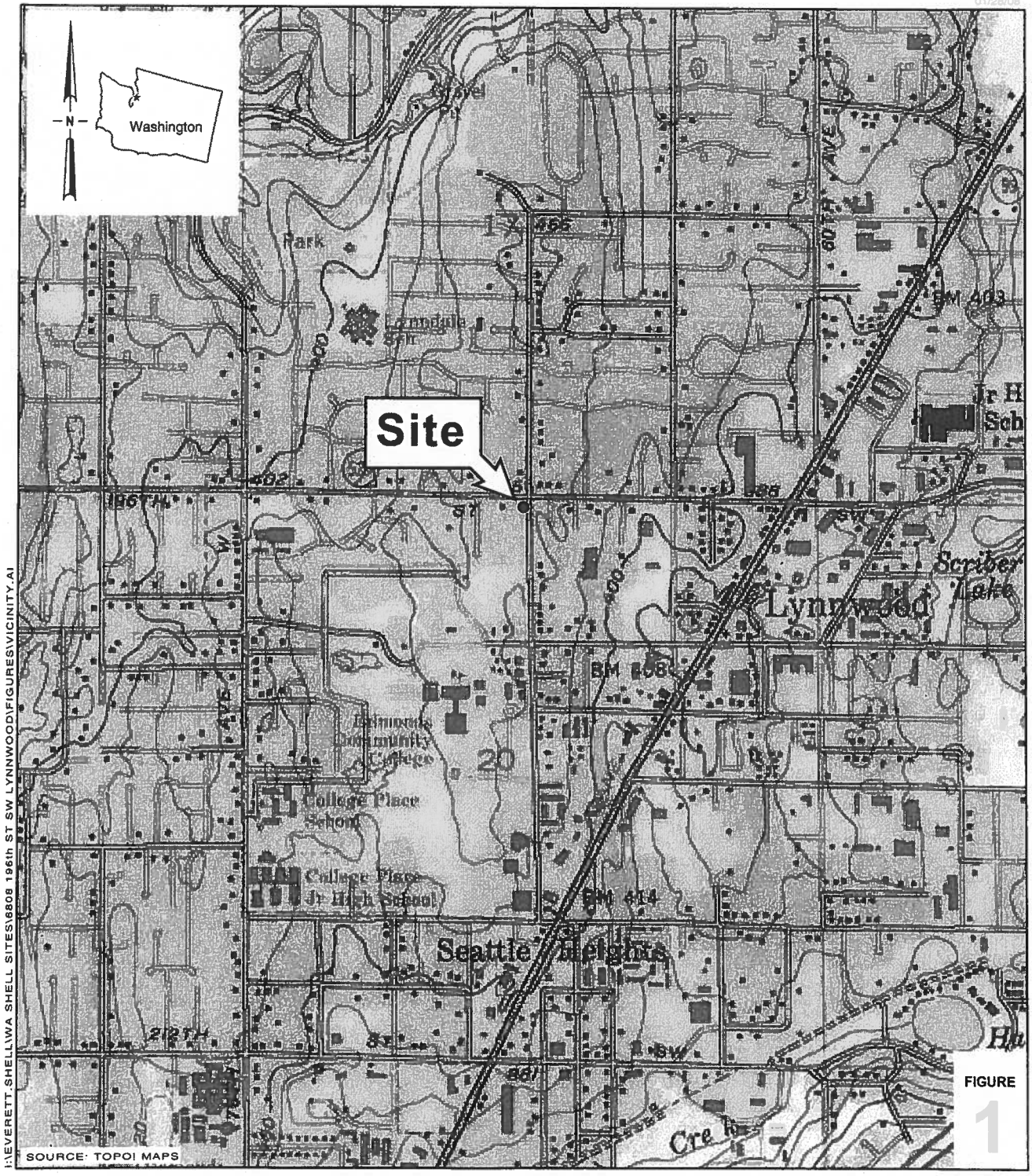
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES



Andy Leung

Justin Foslien, LG

FIGURES



I:\EVERETT.SHELL\WA SHELL SITES\6808 196th ST SW LYNNWOOD\FIGURES\VICINITY.AI

FIGURE 1

0 1/8 1/4 1/2

SCALE : 1" = 1/4 MILE

Jiffy Lube No. 2069

6808 196th Street Southwest

Lynnwood, Washington

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

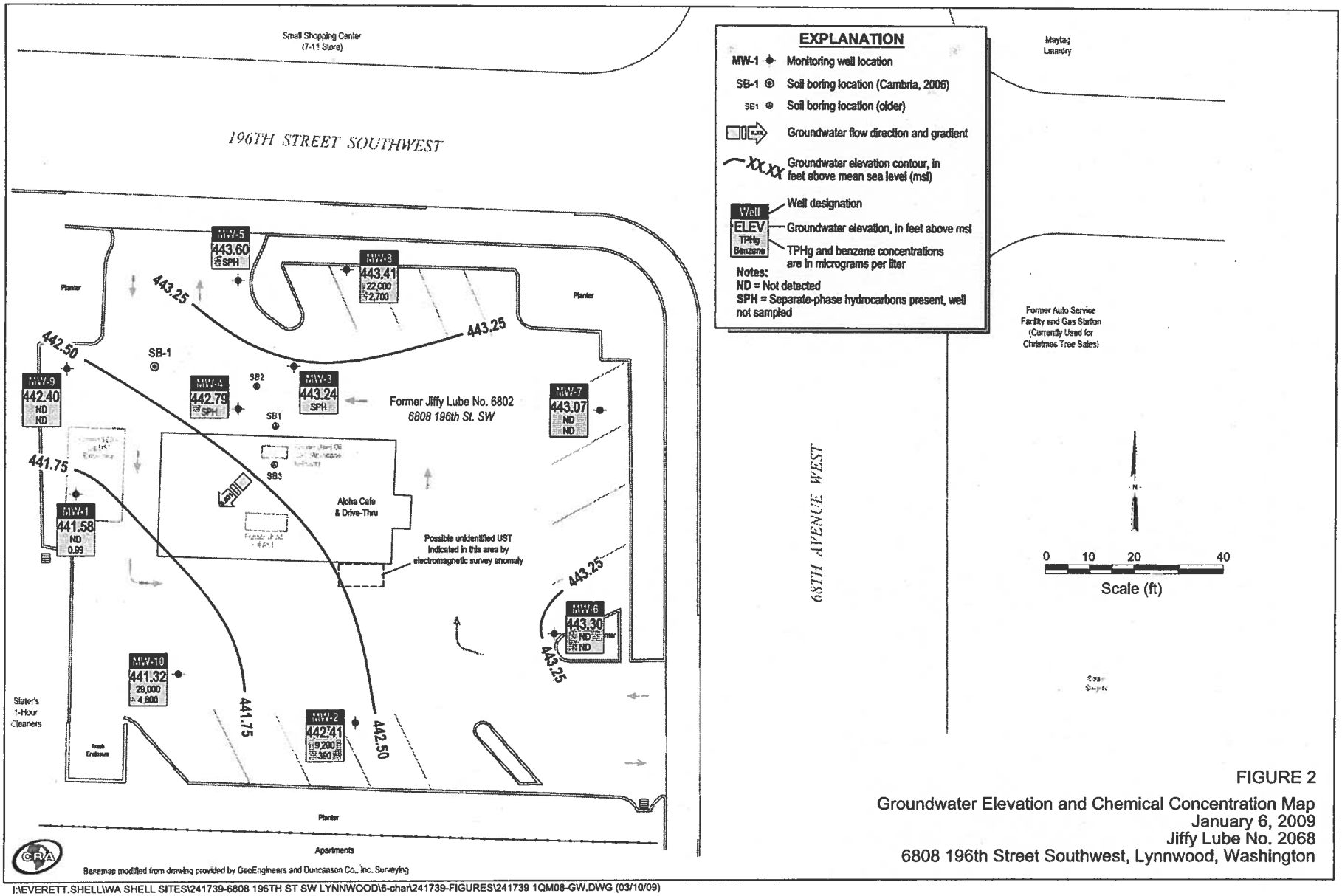


FIGURE 2

Groundwater Elevation and Chemical Concentration Map
January 6, 2009
Jiffy Lube No. 2068
6808 196th Street Southwest, Lynnwood, Washington

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TABLES

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA - PETROLEUM HYDROCARBONS, BTEX, MTBE, AND OXYGENATES

6808 196TH STREET SW,
LYNNWOOD, WASHINGTON

Sample ID	*Date*	*TOC*	*DTW*	*GWE*	*SPH Thickness*	*TPHg*	*TPHd*	*TPHo*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Model Toxics Control Act Method A Cleanup Levels					800/1000[a]	500	500	5	1000	700	1000	20				

Notes:

DTW = Depth to Water in feet
GWE = Groundwater Elevation in feet relative to arbitrary benchmarks
TOC = Top of Casing in feet relative to arbitrary benchmark
All results in micrograms per liter (ug/L) unless otherwise indicated.
TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH-Gx unless otherwised noted.
TPHg[a] = The higher value is based on the assumption that no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPH-G cleanup level is applicable.
TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH-Dx unless otherwised noted.
TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH-Dx unless otherwised noted.
Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.
Xylenes = o-xylene + m,p-xylene
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
TBA = Tertiary-butanol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
<x = Not detected at laboratory reporting limit x
— = Not analyzed
Concentrations in bold type indicate the analyte was detected above MTCA Method A Cleanup levels

a = Due to multiple re-shots required for re-analysis, the aliquot of sample analyzed on the instrument was taken from a VOA vial containing headspace.
b = Sample container contained headspace.
c = Results in the diesel organics range are primarily due to overlap from a gasoline-range product.
d = Groundwater elevation formula adjusted for the presence of SPH: (TOC - DTW)+ (SPHT*0.80)
e = Hydrocarbon pattern most closely resembles a blend of gasoline and diesel.
f = The primary contamination elutes between C8 and C28, which is in the diesel range.
g = The contamination did not match any standard in our library.
h = The primary contamination elutes between C8 and C14, which is in the mineral spirits range.
I = The primary contamination elutes between C8 and C16, which is in the kerosene range.

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA - PETROLEUM HYDROCARBONS, BTEX, MTBE, AND OXYGENATES

6808 196TH STREET SW,
LYNNWOOD, WASHINGTON

Sample ID	*Date*	*TOC*	*DTW*	*GWE*	*SPH Thickness*	*TPHg*	*TPHd*	*TPHo*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Model Toxics Control Act Method A Cleanup Levels					800/1000[a]	500	500	5	1000	700	1000	20				
MW-5	09/22/08	451.38	9.18	442.36 d	0.20	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	01/06/09	451.38	7.80	443.60 d	0.02	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-6	07/09/07	449.40	8.33	441.07	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-6	07/28/07	449.40	8.61	440.79	0.00	52.4	<253	**<505**	<0.500	1.25	<0.500	<1.00	—	—	—	—	—
MW-6	10/01/07	449.40	12.22	437.18	0.00	<250	<105	<105	<1.00	<1.00	<1.00	<3.00	—	—	—	—	—
MW-6	01/10/08	449.40	7.86	441.54	0.00	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	—	—	—	—	—
MW-6	07/10/08	449.40	7.87	441.53	0.00	<50	<500	<200	<1	<1	<1	<1	—	—	—	—	—
MW-6	01/06/09	449.40	6.10	443.30	0.00	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0
MW-7	07/09/07	450.14	7.81	442.33	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-7	07/28/07	450.14	8.03	442.11	0.00	<50.0	<253	<495	<0.500	<0.500	<0.500	<1.00	—	—	—	—	—
MW-7	10/01/07	450.14	11.71	438.43	0.00	<250	<111	<111	1.78	<1.00	<1.00	<3.00	—	—	—	—	—
MW-7	01/10/08	450.14	7.32	442.82	0.00	51.2	<250	<500	**68.4**	1.26	79.7	110	—	—	—	—	—
MW-7	07/10/08	450.14	7.27	442.87	0.00	<50	<500	<200	<1	<1	<1	<1	—	—	—	—	—
MW-7	01/06/09	450.14	7.07	443.07	0.00	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0
MW-8	07/09/07	451.31	8.63	442.68	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-8	07/28/07	451.31	8.97	442.34	0.00	**266,000**	**8,580 e**	**<5,210**	**20,500**	**43,600**	**3,550**	**23,000**	—	—	—	—	—
MW-8	10/01/07	451.31	12.58	438.73	0.00	**181,000**	**6,540 g, i**	**<1,110**	**18,000**	**32,000**	**2,250**	**14,900**	—	—	—	—	—
MW-8	01/10/08	451.31	8.16	443.15	0.00	**202,000**	**9,190 c**	**<4,850**	**13,400**	**29,600**	**2,200**	**14,000**	—	—	—	—	—
MW-8	07/10/08	451.31	8.14	443.18 d	0.01	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-8	08/26/08	451.31	8.30	443.03 d	0.02	—	—	—	—	—	—	—	—	—	—	—	—
MW-8	09/22/08	451.31	8.80	442.52 d	0.01	—	—	—	—	—	—	—	—	—	—	—	—
MW-8	01/06/09	451.31	7.90	443.41	0.00	**22,000**	**6,900**	440	**2,700**	**6,300**	390	**4,300**	<20	<200	<40	<40	<40
MW-9	07/09/07	451.75	10.83	440.92	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-9	07/28/07	451.75	11.02	440.73	0.00	<50.0	<248	<495	<0.500	<0.500	<0.500	<1.00	—	—	—	—	—
MW-9	10/01/07	451.75	14.07	437.68	0.00	299	174 f,g	<111	**5.52**	<1.00	<1.00	<3.00	—	—	—	—	—
MW-9	01/10/08	451.75	9.76	441.99	0.00	<50.0	<238	<476	<0.500	<0.500	<0.500	<3.00	—	—	—	—	—
MW-9	07/10/08	451.75	9.71	442.04	0.00	<50	<500	**<1000**	<1	<1	<1	<1	—	—	—	—	—
MW-9	01/06/09	451.75	9.35	442.40	0.00	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0
MW-10	07/09/07	451.43	12.44	438.99	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-10	07/28/07	451.43	12.77	438.66	0.00	**6,570**	307 c	**<505**	**299**	179	237	615	—	—	—	—	—
MW-10	10/01/07	451.43	14.87	436.56	0.00	**27,100**	**1,820 g,i**	**<556**	**1,510**	**1,220**	**1,210**	**2,650**	—	—	—	—	—
MW-10	01/10/08	451.43	10.52	440.91	0.00	**11,400**	<248	<495	**316**	237	**842**	604	—	—	—	—	—
MW-10	07/10/08	451.43	11.69	439.74	0.00	**1,400**	<500	**<1000**	**1,400**	**1,200**	**710**	**2,310**	—	—	—	—	—
MW-10	01/06/09	451.43	10.11	441.32	0.00	**29,000**	120	<100	**4,800**	**1,400**	**1,800**	**5,100**	<10	<100	<20	<20	<20

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6808 196TH STREET SW,
LYNNWOOD, WASHINGTON

Sample ID	*Date*	*TOC*	*DTW*	*GWE*	*SPH Thickness*	*TPHg*	*TPHd*	*TPHo*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Model Toxics Control Act Method A Cleanup Levels					800/1000[e]	500	500	5	1000	700	1000	20				
MW-4	02/15/07	452.01	9.96	442.05	0.00	253,000 a, b	72,100 c	<50,000	31,500 a, b	40,500 a, b	2,990 a, b	18,100 a, b	<500	<5,000	<100	<100	<100
MW-4	04/06/07	452.01	10.41	441.63 d	0.04	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-4	07/09/07	452.01	10.47	441.56 d	0.03	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	07/28/07	452.01	10.81	441.23 d	0.04	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-4	10/01/07	452.01	14.24	437.87 d	0.13	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-4	11/12/07	452.01	13.83	438.31 d	0.16	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	11/20/07	452.01	13.68	438.44 d	0.14	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	11/26/07	452.01	13.52	438.58 d	0.11	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	12/08/07	452.01	12.87	439.22 d	0.10	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	12/14/08	452.01	12.41	439.66 d	0.07	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	12/19/07	452.01	12.33	439.72 d	0.05	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	12/28/07	452.01	12.24	439.80 d	0.04	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	01/10/08	452.01	9.61	442.42 d	0.03	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-4	01/14/08	452.01	9.23	442.80 d	0.02	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	01/21/08	452.01	8.07	443.96 d	0.03	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	02/26/08	452.01	9.03	443.00 d	0.03	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	07/10/08	452.01	9.71	442.41 d	0.14	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-4	08/26/08	452.01	10.52	441.68 d	0.24	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	09/22/08	452.01	11.01	441.27 d	0.34	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	01/06/09	452.01	9.24	442.79 d	0.02	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-5	12/28/06	451.38	8.11	443.27	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	12/29/06	451.38	8.17	443.21	—	122,000	603	<515	7,220	24,400	2,280	13,200	—	—	—	—	—
MW-5	02/15/07	451.38	8.49	442.89	—	771,000 a, b	49,200 c	<5,000	12,800 a, b	43,600 a, b	6,000 a, b	40,700 a, b	<500	<5,000	<100	<100	<100
MW-5	04/06/07	451.38	9.08	442.32 d	0.03	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-5	07/09/07	451.38	9.19	442.21 d	0.03	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	07/28/07	451.38	9.58	441.83 d	0.04	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-5	10/01/07	451.38	13.16	438.28 d	0.08	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-5	11/12/07	451.38	12.74	438.69 d	0.06	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	11/20/07	451.38	12.55	438.89 d	0.08	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	11/26/07	451.38	12.48	438.95 d	0.06	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	12/05/07	451.38	11.74	439.72 d	0.10	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	12/14/07	451.38	11.53	439.90 d	0.06	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	12/19/07	451.38	11.41	440.00 d	0.04	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	12/28/07	451.38	11.29	440.12 d	0.04	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	01/10/08	451.38	8.70	442.70 d	0.02	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-5	01/14/08	451.38	8.70	442.68	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	01/21/08	451.38	8.00	443.54 d	0.20	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	02/26/08	451.38	8.02	443.50 d	0.17	—	—	—	—	—	—	—	—	—	—	—	—
MW-5	07/10/08	451.38	8.68	442.97 d	0.34	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-5	08/26/08	451.38	8.86	442.73 d	0.26	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA - PETROLEUM HYDROCARBONS, BTEX, MTBE, AND OXYGENATES

6808 196TH STREET SW,
LYNNWOOD, WASHINGTON

Sample ID	*Date*	*TOC*	*DTW*	*GWE*	*SPH Thickness*	*TPHg*	*TPHd*	*TPHo*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*
	Model Toxics Control Act Method A Cleanup Levels					800/1000[a]	500	500	5	1000	700	1000	20				
MW-1	12/28/06	451.74	9.75	441.99	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	12/29/06	451.74	9.57	442.17	0.00	42,100	<255	<510	9,190	2,140	1,090	4,100	—	—	—	—	—
MW-1	02/15/07	451.74	10.10	441.64	0.00	41,200	<269	<538	9,230	1,840	938	3,710	<5.00	54.6	<1.00	<1.00	<1.00
MW-1	04/06/07	451.74	10.71	441.03	0.00	30,200	<258	<515	7,450	732	718	2,310	—	—	—	—	—
MW-1	07/09/07	451.74	10.78	440.96	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	07/28/07	451.74	11.01	440.73	0.00	5,850	<258	<515	2,400	32.4	131	190	—	—	—	—	—
MW-1	10/01/07	451.74	13.98	437.76	0.00	23,900	1,540 f,g	<105	6,270	196	653	1,340	—	—	—	—	—
MW-1	01/10/08	451.74	9.43	442.31	0.00	73,000	<243	<485	16,500	4,010	1,610	6,790	—	—	—	—	—
MW-1	07/10/08	451.74	10.81	440.93	0.00	800	1,400	<300	280	13	2	33	—	—	—	—	—
MW-1	01/06/09	451.74	10.16	441.58	0.00	<100	190	380	0.99	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0
MW-2	12/28/06	450.59	7.26	443.33	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-2	12/29/06	450.59	7.35	443.24	0.00	2,640	<253	<505	21.7	6.75	55.1	9.91	—	—	—	—	—
MW-2	02/15/07	450.59	8.03	442.56	0.00	249	<278	<556	2.06	<0.500	4.36	<1.00	<5.00	<50.0	<1.00	<1.00	<1.00
MW-2	04/06/07	450.59	8.50	442.09	0.00	180	<258	<515	1.83	0.518	2.61	<1.00	—	—	—	—	—
MW-2	07/09/07	450.59	8.62	441.97	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-2	07/28/07	450.59	8.96	441.63	0.00	3,200	<255	<510	66.1	7.86	137	20.4	—	—	—	—	—
MW-2	10/01/07	450.59	12.54	438.05	0.00	3,980	1,080 g,h	<105	175	13.7	331	47.4	—	—	—	—	—
MW-2	01/10/08	450.59	7.88	442.71	0.00	5,000	<243	<485	214	9.85	502	71.0	—	—	—	—	—
MW-2	07/10/08	450.59	9.98	440.61	0.00	540	<500	<200	4.9	<1	9.4	<1	—	—	—	—	—
MW-2	01/06/09	450.59	8.18	442.41	0.00	9,200	<100	<100	390	16	840	62	<10	<100	<20	<20	<20
MW-3	12/28/06	451.69	8.45	443.24	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	12/29/06	451.69	8.51	443.18	0.00	171,000	608	<510	28,500	29,200	2,950	15,900	—	—	—	—	—
MW-3	02/15/07	451.69	9.09	442.60	0.00	263,000 a, b	2,580 c	<2,750	29,200	37,400	3,140	18,600	<500	<5,000	<100	<100	<100
MW-3	04/06/07	451.69	9.66	442.03	0.00	214,000	867 c	<495	26,600	37,500	2,850	16,800	—	—	—	—	—
MW-3	07/09/07	451.69	9.81	441.88	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	07/28/07	451.69	10.13	441.56	0.00	248,000	8,340 e	<5,050	28,600	37,400	2,810	12,800	—	—	—	—	—
MW-3	10/01/07	451.69	13.96	437.73	0.00	252,000	185,000 g,h	<10,500	29,300	35,200	3,260	19,300	—	—	—	—	—
MW-3	01/10/08	451.69	9.34	442.37 d	0.02	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-3	01/14/08	451.69	9.06	442.63	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	01/21/08	451.69	8.27	443.42	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	02/26/08	451.69	8.40	443.30 d	0.01	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	07/10/08	451.69	9.02	442.69 d	0.02	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-3	08/26/08	451.69	9.55	442.16 d	0.02	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	09/22/08	451.69	10.00	441.71 d	0.03	—	—	—	—	—	—	—	—	—	—	—	—
MW-3	01/06/09	451.69	8.47	443.24 d	0.02	NOT SAMPLED - SPH PRESENT			—	—	—	—	—	—	—	—	—
MW-4	12/28/06	452.01	9.41	442.60	0.00	—	—	—	—	—	—	—	—	—	—	—	—
MW-4	12/29/06	452.01	9.36	442.65	0.00	207,000	1,810	<510	32,400	39,700	3,200	18,800	—	—	—	—	—

APPENDIX A

BLAINE TECH SERVICES, INC. – FIELD FORMS

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SL2	Site: 97605410
Sampler: SL	Date: 1/6/09
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 20.00	Depth to Water (DTW): 10.11
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: ____

____ (Gals.) X ____ = ____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1210	54.4	7.02	502	10		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1230 Depth to Water:

Sample I.D.: MW-10 Laboratory: STL SPL Other: Gettler-Ryan

Analyzed for: TPH-G BTEX MTBE TPH-D Oxys 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxys 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SL2	Site: 760540
Sampler: SL	Date: 1/6/09
Well I.D.: MW-9	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 19.95	Depth to Water (DTW): 9.35
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: (Bailer) / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other:

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1255	64.7	6.25	738	9		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1255 Depth to Water:

Sample I.D.: MW-9 Laboratory: STL SPL Other GTEL

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 09106-SL2	Site: 760540
Sampler: SL	Date: 1/6/09
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.45	Depth to Water (DTW): 7.90
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other:

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

(Gals.) X = Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1710	57.5	6.76	243	41		
	No SPH detected → sock in well →					
	replaced @ top of			water column		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1710 Depth to Water:

Sample I.D.: MW-8 Laboratory: STL SPL Other Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SL2	Site: 9760 5440
Sampler: EL	Date: 1/6/09
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.60	Depth to Water (DTW): 7.07
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: ____

____(Gals.) X ____ = ____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1200	52.1	6.49	471	67		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1200 Depth to Water:

Sample I.D.: MW-7 Laboratory: STL SPL Other: GeoStrata

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SZ	Site: 9760 5410
Sampler: SL	Date: 1/6/09
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 19.45	Depth to Water (DTW): 6.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other

Sampling Method: Bailer, ~~Disposable Bailer~~, Extraction Port, Dedicated Tubing, Other:

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1145	53.1	6.29	492	13		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1145 Depth to Water:

Sample I.D.: MW-6 Laboratory: STL SPL Other Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 09106-SJ2	Site: 9760 S 10
Sampler: EL	Date: 1/6/09
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): ←	Depth to Water (DTW): 7.80
Depth to Free Product: 7.78	Thickness of Free Product (feet): 0.02
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

_____(Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
	SPH in	well →	No	Sample		
	back in	well →	replaced @			
	top	of	water	to	VOA	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: Depth to Water:

Sample I.D.: MW- Laboratory: STL SPL Other Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SZ	Site: 9760540
Sampler: GL	Date: 1/6/09
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): —	Depth to Water (DTW): 9.22 9.24
Depth to Free Product: 9.22	Thickness of Free Product (feet): 0.02
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: (Bailer) / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other:

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
	SPH	in	well → No	Sample		
	sock in well → replaced @					
	to 2		water column			

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: Depth to Water:

Sample I.D.: MW- Laboratory: STL SPL Other Gettler

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SZ	Site: 9760540
Sampler: EL	Date: 1/6/09
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): ———	Depth to Water (DTW): 8.47
Depth to Free Product: 08.45	Thickness of Free Product (feet): 0.02
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: ____

_____ (Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	Sheet		in well →			No Sample
	Sock		in well →			replaced @
	top		of water column			

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: Depth to Water:

Sample I.D.: MW-3 Laboratory: STL SPL Other GeoEngine

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 09106-SL2	Site: 9760 5410
Sampler: EL	Date: 1/6/09
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 17.40	Depth to Water (DTW): 08.18
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: ____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

____ (Gals.) X ____ = ____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1215	53.7	6.52	672	49		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1215 Depth to Water:

Sample I.D.: MW-2 Laboratory: STL SPL Other: GeoTracker

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090106-SL2	Site: 7605440
Sampler: SL	Date: 1/6/09
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.80	Depth to Water (DTW): 10.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: ____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

____ (Gals.) X ____ = ____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1240	54.8	7.02	178	8		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/6/09 Sampling Time: 1240 Depth to Water:

Sample I.D.: MW-1 Laboratory: STL SPL Other: GTEL

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL GAUGING DATA

Project # 090106-SQ2 Date 1/6/09 Client Shell

Site 6808 196th Lynnwood

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	1215	2					10.16	24.80	TOC	
MW-2	1209	2					8.18	17.40		
MW-3	1315	2		9.45	0.02		8.47	—		
MW-4	1321	2		9.22	0.02		9.24	←		
MW-5	1288	2		7.78	0.02		7.80	←		
MW-6	1141	2					6.10	19.45		
MW-7	1155	2					7.07	19.60		
MW-8	1206	2					7.90	19.45		
MW-9	1249	2					9.35	19.95		
MW-10	1222	2					10.11	20.00		

WELLHEAD INSPECTION FORM

Client: Shell Site: 9760540 Date 1/6/09

Job #: 090106-SL2 Technician: _____ Page 1 of 1

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

Notes: _____

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [x] CALSCIENCE (Irvine)
- [ ] SPL Houston (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

Please Check Appropriate Box:
- [x] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SOACH
- [ ] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER _____

Print Bill To Contact Name: Carol Compagna

INCIDENT # (ENV. SERVICES): 9 7 6 0 5 4 1 0

- [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 1/8/09

PAGE: 1 of 1

PO #:

SAP #:

SAMPLING COMPANY: Blaine Tech Services

LOG CODE:

SITE ADDRESS: Street and City: 6808 196th Street SW, Lynnwood

State: WA

GLOBAL ID: NA

ADDRESS: 1680 Rogers Avenue, San Jose, Ca

EDF DELIVERABLE TO (Name, Company, City): Christine Schweigert, CRA, Everett

PHONE: 425-212-5100

EMAIL: cschweigert@CRAworld.com

CONSULTANT PROJECT NO: 090106-SC2

PROJECT CONTACT (Hardcopy or PDF Report to): Dan Koskela

TELEPHONE: 916-925-2913x101

FAX: 916-925-2891

E-MAIL: dkoskela@blainetech.com

SAMPLER NAME(S) (Print): S. Lane

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

REQUESTED ANALYSIS

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

See Calscience PM for WA Dept. of Ecology MTCA Method A cleanup levels for minimum detection limits

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] RECEIPT VERIFICATION REQUESTED

LAB Use ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	H2O3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDB, EDC (8260B)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)	NWTPH-VPH	NWTPH-EPH	n-Hexane (8071B)	TEMPERATURE ON RECEIPT C°	Container PID Readings or Laboratory Notes
	MW-6	1/6/09	1145	W	X			X		5	X	X	X	X											
	MW-7		1200	W	X			X		5	X	X	X	X											
	MW-2		1215	W	X			X		5	X	X	X	X											
	MW-10		1230	W	X			X		5	X	X	X	X											
	MW-1		1240	W	X			X		5	X	X	X	X											
	MW-9		1255	W	X			X		5	X	X	X	X											
	MW-8		1310	W	X			X		5	X	X	X	X											

Relinquished by: (Signature) S. Lane	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

Appendix A – Job Clearance Form

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [x] CALSCIENCE ( )
- [ ] SPL Houston ( )
- [ ] XENCO ( )
- [ ] TEST AMERICA ( )
- [ ] OTHER ( )

Please Check Appropriate Box:
- [x] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [ ] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER

Print Bill To Contact Name: Carol Compagna

INCIDENT # (ENV SERVICES): 97605410 [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 1/8/09

PO #:

SAP #:

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services

LOG CODE:

SITE ADDRESS: Street and City: 6808 196th Street SW, Lynnwood

State: WA

GLOBAL ID #: NA

ADDRESS: 1680 Rogers Avenues, San Jose, Ca

EDF DELIVERABLE TO (Name, Company, Office Location): Christine Schweigert, CRA, Everett

PHONE #: 425-212-5100

EMAIL: cschweigert@CRAworld.com

CONSULTANT PROJECT NO: 390126-S12

PROJECT CONTACT (Hardcopy or PDF Report to): Dan Koskela

TELEPHONE: 916-925-2913x101

FAX: 916-925-2891

EMAIL: dkoskela@blainetech.com

SAMPLER NAME(S) (Print): S. Lane

LAB USE ONLY: 09-01-0418

TURNAROUND TIME (CALENDAR DAYS):
- [x] STANDARD (14 DAY)
- [ ] 5 DAYS
- [ ] 3 DAYS
- [ ] 2 DAYS
- [ ] 24 HOURS
- [ ] RESULTS NEEDED ON WEEKEND

REQUESTED ANALYSIS

- [ ] LA - RWQCB REPORT FORMAT
- [ ] UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

See Calscience PM for WA Dept. of Ecology MTCA Method A cleanup levels for minimum detection limits

- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] RECEIPT VERIFICATION REQUESTED

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDB, EDC (8260B)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)	NWTPH-VPH	NWTPH-EPH	n-Hexane (8071B)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	MW-6	1/6/09	1145	W	X			X		5	X	X	X	X										
2	MW-7		1200	W	X			X		5	X	X	X	X										
3	MW-2		1215	W	X			X		5	X	X	X	X										
4	MW-10		1230	W	X			X		5	X	X	X	X										
5	MW-1		1240	W	X			X		5	X	X	X	X										
6	MW-9		1255	W	X			X		5	X	X	X	X										
7	MW-8		1310	W	X			X		5	X	X	X	X										

Relinquished by: (Signature) S. Lane	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 1/8/09	Time: 1000
Relinquished by: (Signature) 8668637650 97	Received by: (Signature)	Date:	Time:

05/2/08 Revision

APPENDIX B

LABORATORY ANALYSIS REPORT

CONESTOGA-ROVERS
& ASSOCIATES

526 Commerce Center - Building B
1420 80th Street SW, Suite A
Everett, Washington 98203
Telephone: (425) 212-5100 Fax: (425) 212-5199
www.CRAworld.com

Filing: **Correspondence File**

CONESTOGA-ROVERS & ASSOCIATES

526 Commerce Center - Building B
1420 80th Street SW, Suite A
Everett, Washington 98203
Telephone: (425) 212-5100 Fax: (425) 212-5199
www.CRAworld.com

TRANSMITTAL

DATE: March 26, 2009

REFERENCE NO.: 241739

PROJECT NAME: 6808 196th Street SW, Lynnwood, WA

TO: Carrie Pederson
Department of Ecology
3190 160th Ave. SE
Bellevue, WA 98008-5452

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☒ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other Livelink

QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report - First Quarter 2009

- ☒ As Requested
- ☐ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:

Copy to: Ms. Carol Campagna, Shell Oil Products US; Mr. Rick Megenity, Strickland Corporation

Completed by: Andy Leung [Please Print] Signed:

Calscience
Environmental
Laboratories, Inc.

January 21, 2009

Dan Koskela
Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject: **Calscience Work Order No.:** **09-01-0418**
Client Reference: **6808 196th Street SW, Lynnwood, WA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 1/8/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Philip Lanelle for

Calscience Environmental
Laboratories, Inc.
Jessie Kim
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: NWTPH-Gx

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**09-01-0418-1-C**	**01/06/09 11:45**	**Aqueous**	**GC 29**	**01/13/09**	**01/13/09 23:39**	**090113B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**09-01-0418-2-C**	**01/06/09 12:00**	**Aqueous**	**GC 29**	**01/13/09**	**01/14/09 00:13**	**090113B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**09-01-0418-3-C**	**01/06/09 12:15**	**Aqueous**	**GC 29**	**01/13/09**	**01/14/09 01:21**	**090113B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	9200	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	242	38-134	2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10	**09-01-0418-4-C**	**01/06/09 12:30**	**Aqueous**	**GC 30**	**01/15/09**	**01/16/09 04:15**	**090115B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	29000	10000	100		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	101	38-134	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: NWTPH-Gx

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**09-01-0418-5-C**	**01/06/09 12:40**	**Aqueous**	**GC 29**	**01/13/09**	**01/14/09 02:28**	**090113B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	97	38-134	

MW-9	**09-01-0418-6-C**	**01/06/09 12:55**	**Aqueous**	**GC 29**	**01/13/09**	**01/14/09 03:02**	**090113B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	58	38-134	

MW-8	**09-01-0418-7-C**	**01/06/09 13:10**	**Aqueous**	**GC 30**	**01/15/09**	**01/16/09 04:49**	**090115B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	22000	10000	100		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	38-134	

Method Blank	**099-12-743-108**	**N/A**	**Aqueous**	**GC 29**	**01/13/09**	**01/13/09 13:31**	**090113B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	103	38-134	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.	Date Received:	01/08/09
1680 Rogers Avenue	Work Order No:	09-01-0418
San Jose, CA 95112-1105	Preparation:	EPA 5030B
	Method:	NWTPH-Gx

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-743-110**	**N/A**	**Aqueous**	**GC 30**	**01/15/09**	**01/15/09 15:23**	**090115B01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	38-134	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received:	01/08/09
Work Order No:	09-01-0418
Preparation:	EPA 3510C
Method:	NWTPH-Dx
Units:	ug/L

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**09-01-0418-1-E**	**01/06/09 11:45**	**Aqueous**	**GC 47**	**01/10/09**	**01/12/09 23:31**	**090110B09**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	ND	100	1		TPH as Motor Oil Range	ND	100	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	79	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**09-01-0418-2-E**	**01/06/09 12:00**	**Aqueous**	**GC 47**	**01/10/09**	**01/12/09 23:47**	**090110B09**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	ND	100	1		TPH as Motor Oil Range	ND	100	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	77	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**09-01-0418-3-E**	**01/06/09 12:15**	**Aqueous**	**GC 47**	**01/10/09**	**01/13/09 00:03**	**090110B09**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	ND	100	1		TPH as Motor Oil Range	ND	100	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	75	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10	**09-01-0418-4-E**	**01/06/09 12:30**	**Aqueous**	**GC 47**	**01/10/09**	**01/13/09 00:19**	**090110B09**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	120	100	1		TPH as Motor Oil Range	ND	100	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	84	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**09-01-0418-5-E**	**01/06/09 12:40**	**Aqueous**	**GC 47**	**01/10/09**	**01/13/09 00:35**	**090110B09**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	190	100	1		TPH as Motor Oil Range	380	100	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	73	68-140	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 3510C
Method: NWTPH-Dx
Units: ug/L

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9	**09-01-0418-6-E**	**01/06/09 12:55**	**Aqueous**	**GC 47**	**01/10/09**	**01/13/09 00:51**	**090110B09**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	ND	100	1		TPH as Motor Oil Range	ND	100	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decachlorobiphenyl	74	68-140							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**09-01-0418-7-E**	**01/06/09 13:10**	**Aqueous**	**GC 47**	**01/10/09**	**01/13/09 01:07**	**090110B09**

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
-The sample extract was subjected to Silica Gel treatment prior to analysis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPH as Diesel Range	6900	100	1		TPH as Motor Oil Range	440	100	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decachlorobiphenyl	73	68-140							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-840-35**	**N/A**	**Aqueous**	**GC 47**	**01/10/09**	**01/12/09 21:33**	**090110B09**

Parameter	Result	RL	DF	Qual
TPH as Diesel Range	ND	100	1	
Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	91	68-140		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	09-01-0418-1-B	01/06/09 11:45	Aqueous	GC/MS QQ	01/09/09	01/09/09 14:28	090109L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	98	82-130		1,2-Dichloroethane-d4	92	75-141	
Toluene-d8	97	83-113		1,4-Bromofluorobenzene	84	70-118	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	09-01-0418-2-B	01/06/09 12:00	Aqueous	GC/MS QQ	01/09/09	01/09/09 16:02	090109L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	96	82-130		1,2-Dichloroethane-d4	92	75-141	
Toluene-d8	97	83-113		1,4-Bromofluorobenzene	84	70-118	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	09-01-0418-3-B	01/06/09 12:15	Aqueous	GC/MS QQ	01/09/09	01/09/09 16:25	090109L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	390	5.0	10		Tert-Butyl Alcohol (TBA)	ND	100	10	
Ethylbenzene	840	10	10		Diisopropyl Ether (DIPE)	ND	20	10	
Toluene	16	10	10		Ethyl-t-Butyl Ether (ETBE)	ND	20	10	
Xylenes (total)	62	10	10		Tert-Amyl-Methyl Ether (TAME)	ND	20	10	
Methyl-t-Butyl Ether (MTBE)	ND	10	10						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	98	82-130		1,2-Dichloroethane-d4	92	75-141	
Toluene-d8	97	83-113		1,4-Bromofluorobenzene	89	70-118	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.	Date Received:	01/08/09
1680 Rogers Avenue	Work Order No:	09-01-0418
San Jose, CA 95112-1105	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	ug/L

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10	**09-01-0418-4-B**	**01/06/09 12:30**	**Aqueous**	**GC/MS QQ**	**01/09/09**	**01/09/09 16:49**	**090109L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	4800	50	100		Tert-Butyl Alcohol (TBA)	ND	100	10	
Ethylbenzene	1800	10	10		Diisopropyl Ether (DIPE)	ND	20	10	
Toluene	1400	10	10		Ethyl-t-Butyl Ether (ETBE)	ND	20	10	
Xylenes (total)	5100	100	100		Tert-Amyl-Methyl Ether (TAME)	ND	20	10	
Methyl-t-Butyl Ether (MTBE)	ND	10	10						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	97	82-130			1,2-Dichloroethane-d4	91	75-141		
Toluene-d8	97	83-113			1,4-Bromofluorobenzene	91	70-118		

MW-1	**09-01-0418-5-B**	**01/06/09 12:40**	**Aqueous**	**GC/MS QQ**	**01/11/09**	**01/12/09 06:17**	**090111L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.99	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	103	82-130			1,2-Dichloroethane-d4	94	75-141		
Toluene-d8	98	83-113			1,4-Bromofluorobenzene	85	70-118		

MW-9	**09-01-0418-6-B**	**01/06/09 12:55**	**Aqueous**	**GC/MS QQ**	**01/09/09**	**01/09/09 17:35**	**090109L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	96	82-130			1,2-Dichloroethane-d4	90	75-141		
Toluene-d8	97	83-113			1,4-Bromofluorobenzene	84	70-118		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: 6808 196th Street SW, Lynnwood, WA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**09-01-0418-7-B**	**01/06/09 13:10**	**Aqueous**	**GC/MS QQ**	**01/09/09**	**01/09/09 17:59**	**090109L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	2700	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
Ethylbenzene	390	20	20		Diisopropyl Ether (DIPE)	ND	40	20	
Toluene	6300	100	100		Ethyl-t-Butyl Ether (ETBE)	ND	40	20	
Xylenes (total)	4300	20	20		Tert-Amyl-Methyl Ether (TAME)	ND	40	20	
Methyl-t-Butyl Ether (MTBE)	ND	20	20						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	97	82-130		1,2-Dichloroethane-d4	94	75-141	
Toluene-d8	98	83-113		1,4-Bromofluorobenzene	91	70-118	

Method Blank	099-10-006-28,057	N/A	Aqueous	GC/MS QQ	01/09/09	01/09/09 14:05	090109L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	99	82-130		1,2-Dichloroethane-d4	94	75-141	
Toluene-d8	97	83-113		1,4-Bromofluorobenzene	83	70-118	

Method Blank	099-10-006-28,064	N/A	Aqueous	GC/MS QQ	01/11/09	01/12/09 00:29	090111L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Xylenes (total)	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	103	82-130		1,2-Dichloroethane-d4	96	75-141	
Toluene-d8	97	83-113		1,4-Bromofluorobenzene	84	70-118	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-01-0581-3	Aqueous	GC 29	01/13/09	01/13/09	090113S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	99	99	68-122	0	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-01-0456-1	Aqueous	GC 30	01/15/09	01/15/09	090115S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	84	83	68-122	1	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8260B

Project 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-6	**Aqueous**	**GC/MS QQ**	**01/09/09**	**01/09/09**	**090109S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	97	93	88-118	4	0-7	
Carbon Tetrachloride	102	98	67-145	5	0-11	
Chlorobenzene	98	96	88-118	1	0-7	
1,2-Dibromoethane	86	83	70-130	3	0-30	
1,2-Dichlorobenzene	92	93	86-116	0	0-8	
1,1-Dichloroethene	104	102	70-130	2	0-25	
Ethylbenzene	95	93	70-130	2	0-30	
Toluene	95	92	87-123	3	0-8	
Trichloroethene	94	91	79-127	3	0-10	
Vinyl Chloride	97	96	69-129	2	0-13	
Methyl-t-Butyl Ether (MTBE)	89	86	71-131	4	0-13	
Tert-Butyl Alcohol (TBA)	89	86	36-168	4	0-45	
Diisopropyl Ether (DIPE)	98	95	81-123	3	0-9	
Ethyl-t-Butyl Ether (ETBE)	94	91	72-126	3	0-12	
Tert-Amyl-Methyl Ether (TAME)	83	82	72-126	1	0-12	
Ethanol	103	101	53-149	2	0-31	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 01/08/09
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8260B

Project 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-01-0679-7	Aqueous	GC/MS QQ	01/11/09	01/12/09	090111S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	92	94	88-118	2	0-7	
Carbon Tetrachloride	94	96	67-145	3	0-11	
Chlorobenzene	91	94	88-118	3	0-7	
1,2-Dibromoethane	90	91	70-130	1	0-30	
1,2-Dichlorobenzene	86	87	86-116	0	0-8	
1,1-Dichloroethene	101	103	70-130	2	0-25	
Ethylbenzene	85	89	70-130	4	0-30	
Toluene	90	92	87-123	2	0-8	
Trichloroethene	87	88	79-127	2	0-10	
Vinyl Chloride	93	93	69-129	0	0-13	
Methyl-t-Butyl Ether (MTBE)	98	100	71-131	2	0-13	
Tert-Butyl Alcohol (TBA)	94	96	36-168	2	0-45	
Diisopropyl Ether (DIPE)	101	101	81-123	1	0-9	
Ethyl-t-Butyl Ether (ETBE)	100	101	72-126	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	85	88	72-126	3	0-12	
Ethanol	116	120	53-149	3	0-31	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.		Date Received:	N/A
1680 Rogers Avenue		Work Order No:	09-01-0418
San Jose, CA 95112-1105		Preparation:	EPA 5030B
		Method:	NWTPH-Gx

Project: 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-743-108	Aqueous	GC 29	01/13/09	01/13/09	090113B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	101	101	78-120	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: N/A
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: NWTPH-Gx

Project: 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-743-110	Aqueous	GC 30	01/15/09	01/15/09	090115B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	89	78	78-120	14	0-10	X

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.	Date Received: N/A
1680 Rogers Avenue	Work Order No: 09-01-0418
San Jose, CA 95112-1105	Preparation: EPA 3510C
	Method: NWTPH-Dx

Project: 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-840-35	Aqueous	GC 47	01/10/09	01/12/09	090110B09

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel Range	85	97	75-117	13	0-13	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: N/A
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8260B

Project: 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-28,057	Aqueous	GC/MS QQ	01/09/09	01/09/09	090109L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	96	93	84-120	78-126	4	0-8	
Carbon Tetrachloride	105	100	63-147	49-161	5	0-10	
Chlorobenzene	100	97	89-119	84-124	3	0-7	
1,2-Dibromoethane	94	88	80-120	73-127	7	0-20	
1,2-Dichlorobenzene	94	93	89-119	84-124	1	0-9	
1,1-Dichloroethene	106	102	77-125	69-133	4	0-16	
Ethylbenzene	98	94	80-120	73-127	4	0-20	
Toluene	96	92	83-125	76-132	4	0-9	
Trichloroethene	95	90	89-119	84-124	5	0-8	
Vinyl Chloride	96	94	63-135	51-147	3	0-13	
Methyl-t-Butyl Ether (MTBE)	90	89	82-118	76-124	1	0-13	
Tert-Butyl Alcohol (TBA)	84	87	46-154	28-172	3	0-32	
Diisopropyl Ether (DIPE)	101	99	81-123	74-130	2	0-11	
Ethyl-t-Butyl Ether (ETBE)	99	97	74-122	66-130	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	85	83	76-124	68-132	2	0-10	
Ethanol	92	98	60-138	47-151	7	0-32	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: N/A
Work Order No: 09-01-0418
Preparation: EPA 5030B
Method: EPA 8260B

Project: 6808 196th Street SW, Lynnwood, WA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-006-28,064	Aqueous	GC/MS QQ	01/11/09	01/11/09	090111L02

Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	94	95	84-120	78-126	2	0-8	
Carbon Tetrachloride	96	96	63-147	49-161	0	0-10	
Chlorobenzene	94	94	89-119	84-124	1	0-7	
1,2-Dibromoethane	90	89	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	89	89	89-119	84-124	0	0-9	
1,1-Dichloroethene	101	103	77-125	69-133	1	0-16	
Ethylbenzene	86	88	80-120	73-127	2	0-20	
Toluene	91	93	83-125	76-132	2	0-9	
Trichloroethene	93	93	89-119	84-124	0	0-8	
Vinyl Chloride	91	91	63-135	51-147	1	0-13	
Methyl-t-Butyl Ether (MTBE)	102	101	82-118	76-124	0	0-13	
Tert-Butyl Alcohol (TBA)	101	97	46-154	28-172	4	0-32	
Diisopropyl Ether (DIPE)	104	104	81-123	74-130	0	0-11	
Ethyl-t-Butyl Ether (ETBE)	102	102	74-122	66-130	0	0-12	
Tert-Amyl-Methyl Ether (TAME)	87	88	76-124	68-132	0	0-10	
Ethanol	122	115	60-138	47-151	6	0-32	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 09-01-0418

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 09-01-0418

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Blaine Tech

DATE: 01/08/09

TEMPERATURE: (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 3.1 °C - 0.2 °C (CF) = 2.9 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:_____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs Only **Initial:** JP

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** JP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** WB

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	☑	☐	☐
COC document(s) received complete.....	☑	☐	☐
Sampler's name indicated on COC.....	☑	☐	☐
Sample container label(s) consistent with COC.....	☑	☐	☐
Sample container(s) intact and good condition.....	☑	☐	☐
Correct containers and volume for analyses requested.....	☑	☐	☐
Analyses received within holding time.....	☑	☐	☐
Proper preservation noted on COC or sample container.....	☑	☐	☐
Volatile analysis container(s) free of headspace.....	☑	☐	☐
Tedlar bag(s) free of condensation.....	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA (2) ☑VOAh (3) ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBpo_4 ☐1AGB ☐1AGBna_2

☐1AGBs ☑500AGB ☐500AGBs ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB

☐250PBn ☐125PB ☐125PBznna ☐100PBsterile ☐100PBna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® ☐_____

Checked/Labeled by: WB

Reviewed by: JP

Scanned by: WB

Container: C:Clear A:Amber P:Poly/Plastic G:Glass J:Jar B:Bottle

Preservative: h:HCL n:HNO_3 na_2:$Na_2S_2O_3$ na:NaOH po_4:H_3PO_4 s:H_2SO_4 znna:$ZnAc_2$+NaOH