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DATE:	July 17, 2012

PROJECT LOCATION: 19924 International Blvd, Seatac, Washington

ANTEA PROJECT NUMBER: I42611255

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1	Subsurface Investigation Report
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Project Manager
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Subsurface Investigation Report

ConocoPhillips Service Station #2611255

Facility Site ID # 71711362

19924 International Boulevard, SeaTac, Washington, 98188

*AnteaTMGroup Project No. I42611255
July 17, 2012*

Prepared for:
Washington State Department of Ecology
Toxics Cleanup Program
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Subsurface Investigation Report

ConocoPhillips Service Station #2611255

Facility Site ID # 71711362

19924 International Boulevard, SeaTac, Washington, 98188

Antea Group has prepared this report to summarize groundwater monitoring well installation activities performed at 19924 International Blvd South in SeaTac, Washington (Figure 1). The work summarized in this report was performed to delineate the lateral and vertical distribution of petroleum hydrocarbons in subsurface soils and groundwater beneath the subject property.

1.0 EXECUTIVE SUMMARY

Antea Group has prepared this summary report to present the findings of groundwater monitoring well and air sparge well installations completed at the ConocoPhillips Service station located at 19924 International Blvd South in SeaTac, Washington (Figure 1) in June and July, 2011.

Delta Consultants directed the drilling and installation of five groundwater monitoring wells (MW-9 to MW-13) at the site (Figure 2) in June of 2010. Soil borings were advanced to depths of 33.5 to 36.5 feet below ground surface (bgs) and completed as groundwater monitoring wells. On June 26, 2011 Antea Group (formerly Delta) directed the installation of two additional groundwater monitoring wells (MW-14 and MW-15) hydrostatically downgradient from the property. Locations in the South 200th Street roadway were selected and drilled under permit from the City of Seatac. The borings were drilled to a depth of 36.5 feet and completed as groundwater monitoring wells to delineate offsite impacts to groundwater. Soil samples were selected from each boring for quantitative chemical analysis based on field screening and groundwater elevations.

On July 5 and 6, 2011, Antea directed the installation of four soil borings at the property, using a sonic drill rig. The borings were drilled to a depth of 35 to 40 feet bgs with two completed as groundwater monitoring wells (MW-16 and MW-17) and two as air sparge wells (AS-1 and AS-2). Due to the high temperatures inherent with sonic drilling and loss of volatile compounds, no soil samples were selected for quantitative chemical analysis from these four borings.

Petroleum hydrocarbons were not detected above laboratory reporting limits and/or respective Washington State Model Toxic Control Act (MTCA) Method A cleanup levels in soil samples collected from MW-11 through MW-15. Soil collected from MW-9 and MW-10 contained concentrations in excess of MTCA Method A cleanup levels. Groundwater analytical results collected in third quarter 2011 indicate that petroleum impacts in excess of MTCA Method A cleanup levels still exist south of the dispenser island, and offsite to the southwest.

2.0 BACKGROUND

2.1 Site Description

The facility is an active service station located on the northeast corner of Pacific Highway South and South 200th Street in Seatac, WA. The service station facility consists of a station building and one large canopy covering a concrete drive slab and three pump islands. The underground storage tank (UST) complex is located in the northeast portion of the site, and consists of three UST's (one 12,000-gallon, one 10,000-gallon, and one 6,000-gallon unleaded gasoline tanks). Former USTs were removed from the site prior to the installation of the current tanks in 1983. UST information was found in the Washington Department of Ecology UST Database.

3.0 PREVIOUS INVESTIGATIONS

3.1 April 1991 – Subsurface Petroleum Hydrocarbon Evaluation

In 1991, Rittenhouse-Zeman & Associates (RZA)¹ directed the advancement of five soil borings. Four soil borings were completed as monitoring wells (MW-1, MW-3, MW-4 and MW-5). Soil samples submitted for laboratory analysis were below detection limits but groundwater collected from one well had concentrations of gasoline-range total petroleum hydrocarbons (TPH-G, up to 32,000 ug/l), benzene (up to 7,890 ug/l), toluene (up to 10,700 ug/l) and xylenes (up to 5,370 ug/l) above MTCA Method A cleanup levels. Later that year a measurable amount of light non-aqueous phase liquids (LNAPL) was found in that same well. An emergency product recovery system was installed.

3.2 January 1992 – Additional Subsurface Petroleum Hydrocarbon Evaluation

In 1992, RZA directed the advancement of three additional borings (MW-6 to MW-8)². RZA discovered the existence of a perched water table due to lenses of sand and gravel. Concentrations of BTEX (benzene up to 2.5 mg/kg) and TPH (up to 1,300 mg/kg) were found in soil samples above MTCA Method A cleanup levels, at a depth of 23.5 to 47.5 feet bgs.

3.3 April 1994 – Baseline Assessment

During product line upgrades in 1994, EMCON collected soil samples from trenches near the dispenser islands and USTs³. Laboratory analysis indicated concentrations of TPH-G (up to 18,000 mg/kg), TPH-D (up to 2,820 mg/kg), and BTEX (benzene up to 240 mg/kg) above MTCA Method A cleanup levels.

¹ *Subsurface Petroleum Hydrocarbon Evaluation*, Rittenhouse-Zeman & Associates, March 1992.

² *Additional Subsurface Petroleum Hydrocarbon Assessment*, Rittenhouse-Zeman & Associates, June 1993.

³ *Baseline Assessment Report*, EMCON Northwest Inc, May 25, 1994.

4.0 SCOPE OF WORK

The scope of work performed by Antea Group included the following tasks:

- Development of a site-specific Health and Safety Plan;
- Contracting One-Call and a private underground utility locator to delineate the location and marking of underground utilities and other potential subsurface obstructions in the vicinity of the proposed boring locations;
- Pre-clearing borings to a minimum depth of 5 feet bgs using an air-knife vacuum truck;
- Drilling and installation of nine groundwater monitoring wells (MW-9 through MW-17);
- Collection of soil samples every five feet using a split-spoon sampler driven ahead of the drill bit into the undisturbed formation to obtain discrete soil samples (MW-9 through MW-15);
- Collection of soil samples from a 4-inch diameter drill core driven by sonic vibration to obtain a continuous core (MW-16, MW-17, AS-1 and AS-2);
- Examination and description of each sample using the Unified Soil Classification System (USCS) and standard geologic techniques;
- Submitting soil samples for quantitative chemical analysis from each boring interval;
- Development of newly installed groundwater monitoring wells;
- Collecting groundwater samples from the newly installed wells;
- Surveying well elevations based on an arbitrary on-site benchmark; and
- Preparing a report summarizing the findings of the investigation.

5.0 GROUNDWATER MONITORING WELL INSTALLATIONS

On June 17th and 18th, 2010 Delta personnel directed drilling and installation of five groundwater monitoring wells (MW-9 through MW-13) at the site. On June 26, 2011, Antea Group directed drilling and installation of two offsite groundwater monitoring wells (MW-14 and MW-15) in the South 200th Street Right-of-Way. Between July 5-7, 2011 Antea Group personnel directed drilling and installation of two groundwater monitoring wells (MW-16 and MW-17) and two air sparge wells (AS-1 and AS-2) at the site. Prior to the drilling activities, Antea Group coordinated the location and marking of underground utilities in the vicinity of the proposed boring locations. The utilities survey included contacting the local utility locating service and contracting with a private locating service.

Prior to drilling, each boring location was air-cleared to a minimum depth of five feet bgs with an air-knife and vacuum truck. Following air-knifing, boring locations MW-9 through MW-15 were advanced using hollow-stem auger drilling equipment operated by Cascade Drilling, Inc. Where recovered, soil samples were collected using a split-spoon sampler. Soil borings MW-16, MW-17, AS-1, and AS-2 were advanced using a track mounted sonic drilling rig that collected a continuous core of undisturbed soils. Soil borings were advanced to depths ranging from

32 to 40 feet bgs. Groundwater was encountered in borings at depths of approximately 24 to 27 feet bgs. Each soil boring was completed as a 2" groundwater monitoring well consisting of Schedule 40 (SCH 40) polyvinyl chloride (PVC) casing. Six wells (MW-9, MW-10, and MW-14 through MW-17) were completed with 15 feet of screen, three wells (MW-11, MW-12 and MW-13) were completed with 10 feet of screen, and the two sparge wells were completed with two feet of screen. Annular space was filled with #2/12 filter sand and sealed with hydrated bentonite. A flush-mount casing was then cemented in place over each well head. Boring logs, soil sampling intervals, lithology descriptions (where soil was recovered), and well completion details are included in Appendix A.

Wells MW-9 through MW-17 were developed by surging and pumping after installation was complete. Approximately 15 to 30 gallons of groundwater was extracted from each well.

6.0 WASTE MANAGEMENT

Soil cuttings, decontamination fluids and purge water generated during drilling and groundwater sampling activities were temporarily stored in properly labeled 55-gallon drums pending receipt of analytical data for soil and water samples. The drums were removed by Phillips Service Corporation on August 12, 2010, February 16, 2011, and March 28, 2012 following waste profiling for disposal. Waste manifest documentation is included in Appendix C.

7.0 SAMPLE COLLECTION AND ANALYSIS

7.1 Soil Sampling

Soil samples were field screened using a photo-ionization detector (PID) for volatile petroleum hydrocarbons. Soil samples from borings MW-9 through MW-15 were submitted for quantitative chemical analysis screening for the potential of containing petroleum hydrocarbon-impacted soils. Soil samples collected were individually labeled, recorded on a Chain-of-Custody form, and placed in a chilled cooler pending delivery to a certified analytical laboratory. Soil collected from borings MW-16, MW-17, AS-1, and AS-2 were exposed to intense heat during sonic drilling, which compromises the sample integrity. Analytical testing was therefore not completed for samples collected during sonic drilling. Soil analytical results are presented in Table 1 and Figure 3.

7.2 Groundwater Sampling

On August 16 and September 19, 2011 Antea Group personnel collected groundwater samples from recently-installed groundwater monitoring wells MW-9 through MW-17, and from previously installed wells MW-1 and MW-3 through MW-8. Tasks performed and associated with groundwater monitoring included:

- Water level measurement;
- Groundwater sample collection; and
- Sample shipping to the analytical laboratory.

New polyethylene tubing connected in-line with a peristaltic pump and multimeter with flow-through cell were used to collect groundwater field readings and samples from MW-1, MW-3, MW-5, MW-6, MW-7, MW-9 through MW-13, MW-16, and MW-17. New disposable bailers were used to collect groundwater samples from MW-4, MW-8, MW-14 and MW-15, as depth to groundwater exceeded peristaltic pump capacities. Groundwater samples were collected directly or decanted into laboratory-supplied containers and labeled with the respective sample identification, date and time, and the site project number. The samples were stored in a secured chilled cooler and delivered to an analytical laboratory. Groundwater elevations and analytical results from the 2011 sampling events are summarized in Table 2; Table 3 summarizes historical data. Field sheets are included in Appendix B. A site map showing well locations and groundwater elevations and hydrogeologic contours from September 2011 is included on Figure 4. Groundwater analytical results are mapped on Figure 5.

7.3 Laboratory Analysis

Soil and groundwater samples were submitted to Pace Analytical Laboratories of Seattle, WA for quantitative chemical analysis. One or more soil samples were analyzed for the following parameters:

- Gasoline range hydrocarbons using Northwest Method NWTPH-Gx;
- Diesel and heavy oil range hydrocarbons using Northwest Method NWTPH-Dx with Silica Gel cleanup;
- Volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tert-butyl ether (MTBE) using EPA Method 8260B; and
- Total lead using EPA Method 6010.

One or more groundwater samples were analyzed for the following parameters:

- Gasoline range hydrocarbons using Northwest Method NWTPH-Gx;
- Diesel and heavy oil range hydrocarbons using Northwest Method NWTPH-Dx with Silica Gel cleanup;
- 1,2-Dibromoethane (EDB) using EPA Method 8011;
- BTEX, MTBE, and 1,2-Dichloroethane (EDC) using EPA Method 8260B; and
- Total lead using EPA Method 6010.

8.0 ANALYTICAL RESULTS

8.1 Soil

The laboratory analytical results indicate four soil samples contained concentrations of TPH-G or BTEX above MTCA Method A cleanup levels. All soil samples collected for TPH-D, TPH-O, toluene, MTBE, and total lead were below laboratory reporting limits or MTCA Method A cleanup levels. Soil analytical results are presented in Table 1 and Figure 3. Soil analytical reports are included in Appendix D. A cross section location map and two subsurface soil cross sections are shown in Figures 6 through 8.

8.2 Groundwater

Laboratory analytical results indicate that eight of the groundwater samples contained concentrations of TPH-G, TPH-D, TPH-O, or BTEX compounds above MTCA Method A cleanup levels.

Recent groundwater analytical results are presented in Table 2, and concentrations of TPH-G, TPH-D, TPH-O, and BTEX compounds from the August 16 and September 19, 2011 sampling events are shown on Figure 5. Historical groundwater analytical results are summarized in Table 3. Groundwater analytical reports for 2011 sampling are included in Appendix D.

9.0 SUMMARY AND CONCLUSIONS

Delta Consultants directed drilling and installation of five groundwater monitoring wells at the site in 2010. In 2011, Antea Group directed the installation of an additional four groundwater monitoring wells and two air sparge wells. Petroleum hydrocarbons were detected above MTCA Method A cleanup levels in two of the soil borings (MW-9 and MW-10), at depths of 10, 30, and 33 feet bgs. Analytes were detected in groundwater in 2011 above MTCA Method A cleanup levels in one offsite and seven onsite monitoring wells. These results indicate that petroleum hydrocarbon impacts still remain to the south of the dispenser island and extend offsite to the southwest. Based on this investigation and historical groundwater data, Antea Group recommends that air sparge and soil vapor extraction pilot testing be conducted to develop a remedial approach to address these remaining impacts.

Should you have additional questions or concerns relating to this assessment, please contact Bryan Taylor at (425) 498-7727.

10.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

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Tables

Table 1	Summary of Soil Sample Analytical Results
Table 2	Current Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Gauging and Analytical Data

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

ConocoPhillips Facility No. 2611255
19964 Pacific Highway South
Seatac, Washington

Sample ID	Sample Date	Depth BGS (feet)	Analysis								
			Gasoline Range (mg/kg)	Diesel Range (mg/kg)	Heavy Range (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
MW-9-20	06/18/10	20	<6.3	NA	NA	<0.0026	<0.0026	<0.0026	<0.0079	--	1.1
MW-9-25	06/18/10	25	<7.3	NA	NA	<0.0030	<0.0030	<0.0030	<0.0090	--	1.3
MW-9-30	06/18/10	30	<6.9	NA	NA	0.0367	<0.0029	0.0287	<0.0088	--	1.3
MW-9-33	06/18/10	33	<6.5	NA	NA	0.0908	0.0407	0.0648	0.138	--	1.4
MW-9-36	06/18/10	36	<5.2	NA	NA	0.0217	0.0133	0.0169	0.0241	--	NS
MW-10-10	06/18/10	10	1,180	NA	NA	<0.0024	<0.0024	<0.0024	<0.0071	--	1.6
MW-10-15	06/18/10	15	NS	NA	NA	NS	NS	NS	NS	--	<1.1
MW-10-20	06/18/10	20	<8.4	NA	NA	<0.0028	<0.0028	<0.0028	<0.0085	--	<1.1
MW-10-25	06/17/10	25	<5.3	NA	NA	<0.0032	<0.0032	<0.0032	<0.0096	--	1.7
MW-10-30	06/18/10	30	2,800	NA	NA	<0.0031	<0.0031	15.1	71.5	--	1.4
MW-11-20	06/17/10	20	<6.4	NA	NA	<0.0025	<0.0025	<0.0025	<0.0075	--	1.2
MW-11-25	06/17/10	25	<6.6	NA	NA	<0.0030	<0.0030	<0.0030	<0.0091	--	1.3
MW-11-30	06/17/10	30	<7.1	NA	NA	<0.0029	<0.0029	<0.0029	<0.0087	--	1.3
MW-11-32	06/17/10	32	<5.5	NA	NA	<0.0025	<0.0025	<0.0025	<0.0076	--	3.1
MW-12-20	06/17/10	20	<5.3	NA	NA	<0.0024	<0.0024	<0.0024	<0.0071	--	1.1
MW-12-25	06/17/10	25	<8.2	NA	NA	<0.0030	<0.0030	<0.0030	<0.0090	--	1.4
MW-12-30	06/17/10	30	<6.3	NA	NA	<0.0031	<0.0031	<0.0031	<0.0093	--	1.4
MW-13-20	06/17/10	20	<4.6	NA	NA	<0.0025	<0.0025	<0.0025	<0.0075	--	1.3
MW-13-25	06/17/10	25	<5.6	NA	NA	<0.0027	<0.0027	<0.0027	<0.0080	--	1.9
MW-13-30	06/17/10	30	<5.6	NA	NA	<0.0030	<0.0030	<0.0030	<0.0090	--	1.0
MW-13-35	06/17/10	35	<5.5	NA	NA	<0.0024	<0.0024	<0.0024	<0.0071	--	1.5
MW-14-5	06/26/11	5	<5.1	<17.5	<70.2	<0.0026	<0.0026	<0.0026	<0.0078	<0.0026	2.6
MW-14-10	06/26/11	10	<4.8	<16.1	<64.4	<0.0028	<0.0028	<0.0028	<0.0083	<0.0028	1.7
MW-14-15	06/26/11	15	<5.1	<16.3	<65.1	<0.0027	<0.0027	<0.0027	<0.0082	<0.0027	1.3
MW-14-20	06/26/11	20	<4.7	<16.8	<67.2	<0.0025	<0.0025	<0.0025	<0.0074	<0.0025	1.2
MW-14-25	06/26/11	25	<4.8	<17.6	<70.5	<0.0025	<0.0025	<0.0025	<0.0075	<0.0025	1.3
MW-15-5	06/26/11	5	<5.4	<16.6	<66.4	<0.0027	<0.0027	<0.0027	<0.0081	<0.0027	2.0
MW-15-10	06/26/11	10	<4.9	<16.4	<65.7	<0.0028	<0.0028	<0.0028	<0.0084	<0.0028	1.5
MW-15-15	06/26/11	15	<4.9	<16.3	<65.2	<0.0028	<0.0028	<0.0028	<0.0084	<0.0028	1.6
MW-15-20	06/26/11	20	<4.7	<17.4	<69.6	<0.0024	<0.0024	<0.0024	<0.0072	<0.0024	1.5
MW-15-25	06/26/11	25	<5.1	<17.9	<71.6	<0.0029	<0.0029	<0.0029	<0.0086	<0.0029	1.6
MTCA Method A Cleanup Lev			100/30^a	2,000	2,000	0.03	7	6	9	0.1	250

NOTES:

All concentrations are in milligrams per kilogram (mg/kg).

< = Less than the stated laboratory reporting limit.

NA = Not analyzed

Gasoline range = Gasoline range hydrocarbons by Ecology Method NWTPH-Gx

Diesel and Heavy range hydrocarbons, respectively, by Ecology Method NWTPH-Dx with Acid Silica Gel Cleanup

BTEX = Aromatic compounds by EPA Method 8260B

EDB = 1,2 Dibromoethane by EPA Method 8260B

EDC = 1,2 Dichloroethane by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether by EPA Method 8260B

Total and dissolved lead by EPA Method 6020

^a MTCA Method A Cleanup levels for TPH-g are 100 mg/kg when no Benzene is present and 30 mg/kg when Benzene is present.

TABLE 2
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
CONOCO PHILLIPS 2611255
19964 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA										
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-GRO (C6-C12) (UG/L)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)	Methyl-tertiary-butyl ether (UG/L)	Ethylene dibromide (EDB) (UG/L)	1,2-Dichloroethane (EDC) (UG/L)	Lead, Total (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	NGV	800	500	500	5	700	1000	1000	20	0.01	5	NGV
MW-1	MW-1_20110813	9/19/2011	--	-	99.73	NP	26.31	NP	73.42	<50.0	<77	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-3	MW-3_20110813	9/19/2011	--	-	98.89	NP	25.97	NP	72.92	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-4	MW-4_20110813	9/19/2011	--	-	98.28	NP	30.00	NP	68.28	<50.0	<110	<570	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-5	MW-5_20110813	9/19/2011	--	-	97.75	NP	19.85	NP	77.90	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-6	MW-6_20110813	9/19/2011	--	-	98.77	NP	28.42	NP	70.35	45700	950	<380	191	1390	26.8	5280	--	--	--	<10.0
MW-7	MW-7_20110813	9/19/2011	--	-	98.42	NP	27.29	NP	71.13	2780	150	<380	3.0	77.3	11.4	142	--	--	--	<10.0
MW-8	MW-8_20110813	9/19/2011	--	-	98.8	NP	47.00	NP	51.80	23900	1100	1200	826	812	44.2	1880	--	--	--	18.0
MW-9	MW-9_20110813	9/19/2011	--	-	98.99	NP	28.60	NP	70.39	11100	780	<380	134	569	<10.0	553	--	--	--	<10.0
MW-10	MW-10_20110813	9/19/2011	--	-	98.51	NP	27.90	NP	70.61	7270	520	<390	1.5	131	2.6	477	--	--	--	<10.0
MW-11	MW-11_20110813	9/19/2011	--	-	98.11	NP	26.87	NP	71.24	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-12	MW-12_20110813	9/19/2011	--	-	97.76	NP	26.42	NP	71.34	<50.0	<77	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-13	MW-13_20110813	9/19/2011	--	-	97.33	NP	26.37	NP	70.96	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	--	--	--	<10.0
MW-14	MW-14_20110813	8/16/2011	--	-	99.2	NP	28.31	NP	70.89	17900	540	<380	172	731	50.4	2740	<1.0	<0.010	<1.0	61.3
MW-15	MW-15_20110813	8/16/2011	--	-	98.49	NP	26.70	NP	71.79	62.7	<80	<400	<1.0	<1.0	<1.0	<3.0	<1.0	<0.010	<1.0	41.4
MW-16	MW-16_20110813	9/19/2011	--	-	98.35	NP	27.82	NP	70.53	67900	1000	<380	1630	1780	4250	9320	--	--	--	<10.0
MW-17	MW-17_20110813	9/19/2011	--	-	99.39	NP	28.47	NP	70.92	41300	1200	<390	176	1270	67.1	4830	--	--	--	<10.0

Gauging Notes:

TOC - Top of Casing

DTB from TOC - Depth to Bottom of well from Top of Casing

TOS - Top of Screen

ft - Feet

NP - LNAPL not present

LNAPL - Light non-aqueous phase liquid

* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

-- - No information available

NGV - No guidance value

Analytical Notes:

Results in Bold exceed applicable action limits

2007 MTCA Method A - 2007 MTCA Method A

< - Not detected at or above indicated laboratory reporting limit

UG/L - micrograms/liter

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000	
MW-1		4/16/1991	--	-	99.73	NP	26.58	NP	73.15	--	--	--	--	--	--	
		6/27/1991	--	-	99.73	NP	26.80	NP	72.93	--	--	--	--	--	--	
		1/16/1992	--	-	99.73	NP	28.60	NP	71.13	--	--	<100	<1	<1	<0.5	
		1/23/1992	--	-	99.73	NP	28.75	NP	70.98	--	--	--	--	--	--	
		1/31/1992	--	-	99.73	NP	28.56	NP	71.17	--	--	--	--	--	--	
		8/24/1993	--	-	99.73	NP	29.32	NP	70.41	--	--	<50	<0.5	<0.5	1	89
		11/30/1993	--	-	99.73	NP	29.98	NP	69.75	--	--	<100	<0.5	<0.5	<0.5	6
		3/7/1994	--	-	99.73	NP	30.63	NP	69.10	--	--	<100	<0.5	<0.5	<0.5	<0.5
		7/14/1994	--	-	99.73	NP	30.00	NP	69.73	--	--	<100	<0.5	<0.5	<0.5	<0.5
		10/21/1994	--	-	99.73	NP	30.44	NP	69.29	--	--	<100	<0.5	1	5	3
		12/30/1994	--	-	99.73	NP	30.86	NP	68.87	--	--	<100	<0.5	<0.5	1	<0.5
		3/16/1995	--	-	99.73	NP	29.64	NP	70.09	--	--	<100	<0.5	<0.5	<0.5	<0.5
		6/22/1995	--	-	99.73	NP	28.92	NP	70.81	--	--	<100	<0.5	<0.5	<0.5	<0.5
		9/19/1995	--	-	99.73	NP	29.14	NP	70.59	--	--	<100	<0.5	<0.5	<0.5	<0.5
		12/18/1995	--	-	99.73	NP	28.78	NP	70.95	--	--	<100	<0.5	<0.5	<0.5	<0.5
		3/14/1996	--	-	99.73	NP	27.38	NP	72.35	--	--	<100	<0.5	<0.5	<0.5	<0.5
		6/22/1996	--	-	99.73	NP	27.16	NP	72.57	--	--	<100	<0.5	<0.5	<0.5	<0.5
		9/12/1996	--	-	99.73	NP	27.33	NP	72.40	--	--	<100	<0.5	<0.5	<0.5	<0.5
		12/17/1996	--	-	99.73	NP	27.64	NP	72.09	--	--	<100	<0.5	<0.5	<0.5	<1.5
		3/18/1997	--	-	99.73	NP	26.11	NP	73.62	--	--	<100	<0.5	<0.5	<0.5	<1.5
		6/12/1997	--	-	99.73	NP	25.82	NP	73.91	--	--	<100	<0.5	<0.5	<0.5	<1.5
		9/10/1997	--	-	99.73	NP	26.17	NP	73.56	--	--	<100	<0.5	<0.5	<0.5	<1.5
		3/17/1998	--	-	99.73	NP	26.63	NP	73.10	--	--	<100	<0.5	<0.5	<0.5	<1.5
		6/16/1998	--	-	99.73	NP	27.20	NP	72.53	--	--	<100	<0.5	<0.5	<0.5	<1.5
		9/29/1998	--	-	99.73	NP	28.75	NP	70.98	--	--	--	--	--	--	--
		12/10/1998	--	-	99.73	NP	29.53	NP	70.20	--	--	--	--	--	--	--
		3/10/1999	--	-	99.73	NP	27.23	NP	72.50	--	--	--	--	--	--	--
		6/22/1999	--	-	99.73	NP	26.54	NP	73.19	--	--	<100	<1.0	<1.0	1	<1.0
		9/28/1999	--	-	99.73	NP	27.66	NP	72.07	--	--	--	--	--	--	--
		1/4/2000	--	-	99.73	NP	28.56	NP	71.17	--	--	--	--	--	--	--
		3/30/2000	--	-	99.73	NP	27.21	NP	72.52	--	--	--	--	--	--	--
		6/27/2000	--	-	99.73	NP	26.85	NP	72.88	--	--	730	2	14	1	34
		9/25/2000	--	-	99.73	NP	28.19	NP	71.54	--	--	--	--	--	--	--
		9/16/2001	--	-	99.73	NP	32.71	NP	67.02	--	--	<100	<1.0	<1.0	<1.0	<3.0
		12/4/2001	--	-	99.73	NP	33.11	NP	66.62	--	--	140	<1.0	1.2	<1.0	7.3
		3/14/2002	--	-	99.73	NP	30.25	NP	69.48	--	--	310	<1.0	3.5	<1.0	19

TABLE 3
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PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA							
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)	
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000		
MW-1		6/9/2002	--	-	99.73	NP	31.52	NP	68.21	--	--	120	<1.0	1.3	<1.0	6.9	
		12/18/2002	--	-	99.73	NP	33.51	NP	66.22	NS	NS	NS	NS	NS	NS	NS	
		6/3/2003	--	-	99.73	NP	31.15	NP	68.58	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	
		10/10/2003	--	-	99.73	NP	33.02	NP	66.71	NS	NS	NS	NS	NS	NS	NS	
		4/26/2004	--	-	99.73	NP	29.98	NP	69.75	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	
		10/28/2004	--	-	99.73	NP	27.62	NP	72.11	NS	NS	NS	NS	NS	NS	NS	
		4/27/2005	--	-	99.73	NP	31.71	NP	68.02	--	--	<80.0	<0.200	<0.500	<0.500	<1.00	
		11/22/2005	--	-	99.73	NP	32.98	NP	66.75	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	
		4/25/2006	--	-	99.73	NP	30.08	NP	69.65	NS	NS	NS	NS	NS	NS	NS	
		10/27/2006	--	-	99.73	NP	30.68	NP	69.05	NS	NS	NS	NS	NS	NS	NS	
		4/4/2007	--	-	99.73	NP	28.62	NP	71.11	NS	NS	NS	NS	NS	NS	NS	
		11/19/2007	--	-	99.73	NP	29.57	NP	70.16	NS	NS	NS	NS	NS	NS	NS	
		6/12/2008	--	-	99.73	NP	28.94	NP	70.79	NS	NS	NS	NS	NS	NS	NS	
		10/29/2008	--	-	99.73	NP	29.82	NP	69.91	NS	NS	NS	NS	NS	NS	NS	
		5/15/2009	--	-	99.73	NP	28.81	NP	70.92	--	--	<50.0	<1.0	<1.0	<1.0	<3.0	
		MW-1_20100211	2/11/2010	--	-	99.73	NP	28.61	NP	71.12	--	--	<50.0	<1.0	<1.0	<1.0	<3.0
		MW-1_20100831	9/2/2010	--	-	99.73	NP	26.70	NP	73.03	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
		MW-1_20110813	9/19/2011	--	-	99.73	NP	26.31	NP	73.42	<77	<380	<50.0	<1.0	<1.0	<1.0	<3.0

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000
MW-3		4/16/1991	--	-	98.89	NP	27.01	NP	71.88	--	--	--	--	--	--	--
		6/27/1991	--	-	98.89	NP	26.68	NP	72.21	--	--	--	--	--	--	--
		1/16/1992	--	-	98.89	NP	28.38	NP	70.51	--	--	<100	5	<1	5	5
		1/23/1992	--	-	98.89	NP	28.46	NP	70.43	--	--	--	--	--	--	--
		1/31/1992	--	-	98.89	NP	28.26	NP	70.63	--	--	--	--	--	--	--
		8/24/1993	--	-	98.89	NP	28.59	NP	70.30	--	--	--	--	--	--	--
		11/30/1993	--	-	98.89	NP	29.25	NP	69.64	--	--	<100	<0.5	<0.5	<0.5	<0.5
		3/7/1994	--	-	98.89	NP	29.60	NP	69.29	--	--	<100	1	<0.5	<0.5	<0.5
		7/14/1994	--	-	98.89	NP	29.08	NP	69.81	--	--	<100	1	<0.5	<0.5	<0.5
		10/21/1994	--	-	98.89	NP	29.32	NP	69.57	--	--	<100	1	<0.5	<0.5	1
		12/30/1994	--	-	98.89	NP	29.58	NP	69.31	--	--	<100	1	<0.5	1	1
		3/16/1995	--	-	98.89	NP	28.67	NP	70.22	--	--	<100	<0.5	<0.5	<0.5	<0.5
		6/22/1995	--	-	98.89	NP	28.14	NP	70.75	--	--	<100	<0.5	<0.5	<0.5	<0.5
		9/19/1995	--	-	98.89	NP	28.24	NP	70.65	--	--	<100	1	<0.5	<0.5	<0.5
		12/18/1995	--	-	98.89	NP	28.10	NP	70.79	--	--	<100	<0.5	<0.5	<0.5	<0.5
		3/14/1996	--	-	98.89	NP	26.95	NP	71.94	--	--	<100	<0.5	<0.5	<0.5	<0.5
		6/22/1996	--	-	98.89	NP	26.52	NP	72.37	--	--	<100	7	7	<0.5	4
		9/12/1996	--	-	98.89	NP	26.60	NP	72.29	--	--	<100	2	<0.5	<0.5	<0.5
		12/17/1996	--	-	98.89	NP	26.75	NP	72.14	--	--	130	6	3	<0.5	5
		3/18/1997	--	-	98.89	NP	25.33	NP	73.56	--	--	<100	<0.5	<0.5	<0.5	<1.5
		6/12/1997	--	-	98.89	NP	25.25	NP	73.64	--	--	<100	<0.5	<0.5	<0.5	<1.5
		9/10/1997	--	-	98.89	NP	25.91	NP	72.98	--	--	<100	<0.5	<0.5	<0.5	<1.5
		3/17/1998	--	-	98.89	NP	25.92	NP	72.97	--	--	<100	<0.5	<0.5	<0.5	<1.5
		6/16/1998	--	-	98.89	NP	26.33	NP	72.56	--	--	<100	<0.5	<0.5	<0.5	<1.5
		9/29/1998	--	-	98.89	NP	27.28	NP	71.61	--	--	--	--	--	--	--
		12/10/1998	--	-	98.89	NP	28.04	NP	70.85	--	--	--	--	--	--	--
		3/10/1999	--	-	98.89	NP	26.60	NP	72.29	--	--	--	--	--	--	--
		6/22/1999	--	-	98.89	NP	25.99	NP	72.90	--	--	<100	<1.0	<1.0	<1.0	<1.0
		9/28/1999	--	-	98.89	NP	26.88	NP	72.01	--	--	--	--	--	--	--
		3/30/2000	--	-	98.89	NP	26.74	NP	72.15	--	--	--	--	--	--	--
		6/27/2000	--	-	98.89	NP	26.40	NP	72.49	--	--	<50	<0.5	<0.5	<0.5	<0.5
		9/25/2000	--	-	98.89	NP	27.00	NP	71.89	--	--	--	--	--	--	--
		12/27/2000	--	-	98.89	NP	28.05	NP	70.84	--	--	--	--	--	--	--
		9/16/2001	--	-	98.89	NP	29.40	NP	69.49	--	--	--	--	--	--	--
		12/4/2001	--	-	98.89	NP	29.60	NP	69.29	--	--	940	25	5	<1.0	39
		3/14/2002	--	-	98.89	NP	28.54	NP	70.35	--	--	--	--	--	--	--
		6/9/2002	--	-	98.89	NP	28.00	NP	70.89	--	--	--	--	--	--	--
		12/18/2002	--	-	98.89	NP	29.53	NP	69.36	NS	NS	NS	NS	NS	NS	NS
		6/3/2003	--	-	98.89	NP	28.64	NP	70.25	NS	NS	NS	NS	NS	NS	NS
		10/10/2003	--	-	98.89	NP	29.35	NP	69.54	NS	NS	NS	NS	NS	NS	NS
		4/26/2004	--	-	98.89	NP	28.21	NP	70.68	NS	NS	NS	NS	NS	NS	NS
		10/28/2004	--	-	98.89	NP	27.30	NP	71.59	NS	NS	NS	NS	NS	NS	NS
		4/27/2005	--	-	98.89	NP	28.98	NP	69.91	NS	NS	NS	NS	NS	NS	NS
		11/22/2005	--	-	98.89	NP	29.40	NP	69.49	NS	NS	NS	NS	NS	NS	NS
		4/25/2006	--	-	98.89	NP	28.40	NP	70.49	--	--	<50.0	<0.500	<0.500	<0.500	<1.00
		10/27/2006	--	-	98.89	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		4/4/2007	--	-	98.89	NP	27.39	NP	71.50	NS	NS	NS	NS	NS	NS	NS
		11/19/2007	--	-	98.89	NP	28.27	NP	70.62	NS	NS	NS	NS	NS	NS	NS
		6/12/2008	--	-	98.89	NP	27.54	NP	71.35	NS	NS	NS	NS	NS	NS	NS
		10/29/2008	--	-	98.89	NP	28.39	NP	70.50	NS	NS	NS	NS	NS	NS	NS
		5/15/2009	--	-	98.89	NP	27.30	NP	71.59	--	--	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-3_20100211	2/11/2010	--	-	98.89	NP	27.28	NP	71.61	--	--	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-3_20100831	9/2/2010	--	-	98.89	NP	26.22	NP	72.67	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-3_20110813	9/19/2011	--	-	98.89	NP	25.97	NP	72.92	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0

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PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000	
MW-4		4/16/1991	--	-	98.28	NP	27.78	NP	70.50	--	--	--	--	--	--	
		6/27/1991	--	-	98.28	27.59	27.60	0.01	70.69	--	--	--	--	--	--	
		12/30/1994	--	-	98.28	NP	44.66	NP	53.62	--	--	71000	8600	1200	10000	8400
		3/16/1995	--	-	98.28	NP	43.21	NP	55.07	--	--	40000	5600	560	7000	4100
		6/22/1995	--	-	98.28	NP	42.74	NP	55.54	--	--	--	--	--	--	--
		9/19/1995	--	-	98.28	NP	42.27	NP	56.01	--	--	2100	360	5	200	420
		12/18/1995	--	-	98.28	NP	42.48	NP	55.80	--	--	38000	3300	980	4900	6500
		3/14/1996	--	-	98.28	NP	40.75	NP	57.53	--	--	--	--	--	--	--
		6/22/1996	--	-	98.28	39.91	39.92	0.01	58.37	--	--	--	--	--	--	--
		9/12/1996	--	-	98.28	NP	39.16	NP	59.12	--	--	--	--	--	--	--
		9/29/1998	--	-	98.28	NG	NG	NG	NG	--	--	14000	18	17	45	180
		12/10/1998	--	-	98.28	NG	NG	NG	NG	--	--	420	<1.0	<1.0	<1.0	22
		3/10/1999	--	-	98.28	NG	NG	NG	NG	--	--	2400	39	53	100	370
		6/22/1999	--	-	98.28	NG	NG	NG	NG	--	--	1500	31	21	57	200
		9/28/1999	--	-	98.28	NG	NG	NG	NG	--	--	610	12	9	19	82
		1/4/2000	--	-	98.28	NG	NG	NG	NG	--	--	270	23	7	18	62
		3/30/2000	--	-	98.28	NG	NG	NG	NG	--	--	280	8	6	11	52
		6/27/2000	--	-	98.28	NG	NG	NG	NG	--	--	1700	29	30	84	270
		9/25/2000	--	-	98.28	NG	NG	NG	NG	--	--	140	4	5.5	2.1	30
		12/27/2000	--	-	98.28	NP	23.29	NP	74.99	--	--	130	<1	<1	<1	<3
		9/16/2001	--	-	98.28	NP	43.52	NP	54.76	--	--	980	16	6.6	7.7	50
		12/4/2001	--	-	98.28	NP	43.60	NP	54.68	--	--	--	--	--	--	--
		3/14/2002	--	-	98.28	NP	42.23	NP	56.05	--	--	120	<1.0	<1.0	<1.0	6.3
		6/9/2002	--	-	98.28	NP	42.30	NP	55.98	--	--	<100	<1.0	<1.0	<1.0	<3.0
		12/18/2002	--	-	98.28	NP	42.60	NP	55.68	NS	NS	NS	NS	NS	NS	NS
		6/3/2003	--	-	98.28	NP	42.32	NP	55.96	--	--	<50.0	1.14	<0.500	<0.500	<1.00
		10/10/2003	--	-	98.28	NP	43.42	NP	54.86	NS	NS	NS	NS	NS	NS	NS
		4/26/2004	--	-	98.28	NP	41.91	NP	56.37	--	--	99	2.64	<0.500	4.16	18.3
		10/28/2004	--	-	98.28	NP	30.02	NP	68.26	NS	NS	NS	NS	NS	NS	NS
		4/27/2005	--	-	98.28	NP	42.43	NP	55.85	--	--	<80.0	5.99	<0.500	<0.500	1.49
		11/22/2005	--	-	98.28	NP	42.57	NP	55.71	--	--	176	10.4	2.71	2.82	17.3
		4/25/2006	--	-	98.28	NP	41.88	NP	56.40	--	--	539	13.2	5.08	19.6	119
		10/27/2006	--	-	98.28	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		4/4/2007	--	-	98.28	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		11/19/2007	--	-	98.28	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		6/12/2008	--	-	98.28	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000	
MW-4		5/15/2009	--	-	98.28	NP	33.00	NP	65.28	--	--	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-4_20100211	2/11/2010	--	-	98.28	NP	40.52	NP	57.76	--	--	60.0	<1.0	<1.0	<1.0	<3.0
	MW-4_20100831	9/2/2010	--	-	98.28	NP	29.90	NP	68.38	110	<380	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-4_20110813	9/19/2011	--	-	98.28	NP	30.00	NP	68.28	<110	<570	<50.0	<1.0	<1.0	<1.0	<3.0

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000
MW-5		4/16/1991	--	-	97.75	NP	17.14	NP	80.61	--	--	--	--	--	--	--
		6/27/1991	--	-	97.75	NP	19.01	NP	78.74	--	--	--	--	--	--	--
		1/16/1992	--	-	97.75	NP	19.39	NP	78.36	--	--	<100	<1	<1	<1	<1
		1/23/1992	--	-	97.75	NP	19.29	NP	78.46	--	--	--	--	--	--	--
		1/31/1992	--	-	97.75	NP	19.62	NP	78.13	--	--	--	--	--	--	--
		8/24/1993	--	-	97.75	NP	20.72	NP	77.03	--	--	<5	<0.5	<0.5	<0.5	<0.5
		11/30/1993	--	-	97.75	NP	22.47	NP	75.28	--	--	<100	<0.5	<0.5	<0.5	<0.5
		3/7/1994	--	-	97.75	NP	20.45	NP	77.30	--	--	<100	<0.5	<0.5	<0.5	<0.5
		7/14/1994	--	-	97.75	NP	20.67	NP	77.08	400	--	<100	<0.5	<0.5	<0.5	<0.5
		10/21/1994	--	-	97.75	NP	21.48	NP	76.27	<260	--	<100	1	<0.5	<0.5	<0.5
		12/30/1994	--	-	97.75	NP	20.53	NP	77.22	<240	--	<100	<0.5	<0.5	<0.5	<0.5
		3/16/1995	--	-	97.75	NP	18.11	NP	79.64	<240	--	<100	<0.5	<0.5	<0.5	<0.5
		6/22/1995	--	-	97.75	NP	19.86	NP	77.89	<240	--	<100	<0.5	<0.5	<0.5	<0.5
		9/19/1995	--	-	97.75	NP	20.25	NP	77.50	--	--	<100	<0.5	<0.5	<0.5	<0.5
		12/18/1995	--	-	97.75	NP	17.99	NP	79.76	--	--	<100	<0.5	<0.5	<0.5	<0.5
		3/14/1996	--	-	97.75	NP	17.58	NP	80.17	--	--	<100	<0.5	<0.5	<0.5	<0.5
		6/22/1996	--	-	97.75	NP	18.41	NP	79.34	--	--	<100	<0.5	<0.5	<0.5	<0.5
		9/12/1996	--	-	97.75	NP	18.90	NP	78.85	--	--	<100	<0.5	<0.5	<0.5	<0.5
		12/17/1996	--	-	97.75	NP	17.29	NP	80.46	--	--	<100	<0.5	<0.5	<0.5	<1.5
		3/18/1997	--	-	97.75	NP	16.29	NP	81.46	--	--	<100	<0.5	<0.5	<0.5	<1.5
		6/12/1997	--	-	97.75	NP	17.42	NP	80.33	--	--	<100	<0.5	<0.5	<0.5	<1.5
		9/10/1997	--	-	97.75	NP	19.30	NP	78.45	--	--	<100	<0.5	<0.5	<0.5	<1.5
		3/17/1998	--	-	97.75	NP	17.03	NP	80.72	--	--	<100	<0.5	<0.5	<0.5	<1.5
		6/16/1998	--	-	97.75	NP	18.86	NP	78.89	--	--	<100	<0.5	<0.5	<0.5	<1.5
		9/29/1998	--	-	97.75	NP	20.30	NP	77.45	--	--	--	--	--	--	--
		12/10/1998	--	-	97.75	NP	20.13	NP	77.62	--	--	--	--	--	--	--
		3/10/1999	--	-	97.75	NP	16.96	NP	80.79	--	--	--	--	--	--	--
		6/22/1999	--	-	97.75	NP	18.96	NP	78.79	--	--	--	--	--	--	--
		9/28/1999	--	-	97.75	NP	20.79	NP	76.96	--	--	--	--	--	--	--
		1/4/2000	--	-	97.75	NP	18.55	NP	79.20	--	--	--	--	--	--	--
		3/30/2000	--	-	97.75	NP	17.94	NP	79.81	--	--	--	--	--	--	--
		6/27/2000	--	-	97.75	NP	18.98	NP	78.77	--	--	--	--	--	--	--
		9/25/2000	--	-	97.75	NP	20.47	NP	77.28	--	--	--	--	--	--	--
		12/27/2000	--	-	97.75	NP	26.46	NP	71.29	--	--	--	--	--	--	--
		9/16/2001	--	-	97.75	NP	21.63	NP	76.12	--	--	--	--	--	--	--
		12/4/2001	--	-	97.75	NG	NG	NG	NG	--	--	--	--	--	--	--
		3/14/2002	--	-	97.75	NG	NG	NG	NG	--	--	--	--	--	--	--
		6/9/2002	--	-	97.75	NP	20.22	NP	77.53	--	--	--	--	--	--	--
		12/18/2002	--	-	97.75	NP	22.50	NP	75.25	NS	NS	NS	NS	NS	NS	NS
		6/3/2003	--	-	97.75	NP	19.29	NP	78.46	NS	NS	NS	NS	NS	NS	NS
		10/10/2003	--	-	97.75	NP	22.22	NP	75.53	NS	NS	NS	NS	NS	NS	NS
		4/26/2004	--	-	97.75	NP	31.13	NP	66.62	NS	NS	NS	NS	NS	NS	NS
		10/28/2004	--	-	97.75	NP	27.98	NP	69.77	NS	NS	NS	NS	NS	NS	NS
		4/27/2005	--	-	97.75	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		11/22/2005	--	-	97.75	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		4/25/2006	--	-	97.75	NP	29.70	NP	68.05	NS	NS	NS	NS	NS	NS	NS
		10/27/2006	--	-	97.75	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		4/4/2007	--	-	97.75	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		11/19/2007	--	-	97.75	NG	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS
		6/12/2008	--	-	97.75	NP	19.70	NP	78.05	NS	NS	NS	NS	NS	NS	NS
		10/29/2008	--	-	97.75	NP	21.15	NP	76.60	NS	NS	NS	NS	NS	NS	NS
		5/15/2009	--	-	97.75	NP	18.21	NP	79.54	--	--	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-5_20100211	2/11/2010	--	-	97.75	NP	17.76	NP	79.99	--	--	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-5_20100831	9/2/2010	--	-	97.75	NP	19.50	NP	78.25	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-5_20110813	9/19/2011	--	-	97.75	NP	19.85	NP	77.90	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0

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PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000
MW-6		1/16/1992	--	-	98.77	NP	31.12	NP	67.65	--	--	9100	240	260	210	14000
		1/23/1992	--	-	98.77	NP	31.25	NP	67.52	--	--	--	--	--	--	--
		1/31/1992	--	-	98.77	NP	31.32	NP	67.45	--	--	--	--	--	--	--
		8/24/1993	--	-	98.77	NP	30.96	NP	67.81	--	--	81000	11000	2800	11000	16000
		11/30/1993	--	-	98.77	NP	31.23	NP	67.54	--	--	39000	5800	1100	4700	6100
		3/7/1994	--	-	98.77	31.78	31.84	0.06	66.98	--	--	--	--	--	--	--
		7/14/1994	--	-	98.77	31.54	31.77	0.23	67.17	--	--	--	--	--	--	--
		10/21/1994	--	-	98.77	31.83	31.95	0.12	66.91	--	--	--	--	--	--	--
		12/30/1994	--	-	98.77	29.53	32.46	2.93	68.51	--	--	--	--	--	--	--
		3/16/1995	--	-	98.77	30.51	30.57	0.06	68.25	--	--	--	--	--	--	--
		6/22/1995	--	-	98.77	30.7	30.75	0.05	68.06	--	--	--	--	--	--	--
		9/19/1995	--	-	98.77	30.66	30.68	0.02	68.11	--	--	--	--	--	--	--
		12/18/1995	--	-	98.77	29.76	29.78	0.02	69.01	--	--	--	--	--	--	--
		3/14/1996	--	-	98.77	NP	28.51	NP	70.26	--	--	--	--	--	--	--
		6/22/1996	--	-	98.77	28.54	28.56	0.02	70.23	--	--	--	--	--	--	--
		9/12/1996	--	-	98.77	27.83	27.85	0.02	70.94	--	--	--	--	--	--	--
		12/17/1996	--	-	98.77	28.98	28.99	0.01	69.79	--	--	--	--	--	--	--
		3/17/1998	--	-	98.77	NG	NG	NG	NG	--	--	66500	3800	2600	4100	15300
		9/29/1998	--	-	98.77	NG	NG	NG	NG	--	--	79000	1900	2500	1200	14000
		12/10/1998	--	-	98.77	NG	NG	NG	NG	--	--	68000	1000	2100	630	12000
		3/10/1999	--	-	98.77	NG	NG	NG	NG	--	--	60000	1200	2000	650	10000
		6/22/1999	--	-	98.77	NG	NG	NG	NG	--	--	56000	590	1700	370	10000
		9/28/1999	--	-	98.77	NG	NG	NG	NG	--	--	34000	420	190	280	10000
		1/4/2000	--	-	98.77	NG	NG	NG	NG	--	--	24000	590	1600	340	9600
		3/30/2000	--	-	98.77	NG	NG	NG	NG	--	--	31000	170	1300	190	7900
		6/27/2000	--	-	98.77	NG	NG	NG	NG	--	--	22000	92	1000	120	6100
		9/25/2000	--	-	98.77	NG	NG	NG	NG	--	--	26000	130	1100	170	6300
		12/27/2000	--	-	98.77	NP	29.87	NP	68.90	--	--	26000	73	910	88	5100
		9/16/2001	--	-	98.77	NP	31.51	NP	67.26	--	--	36000	54	1100	35	4800
		12/4/2001	--	-	98.77	31.92	31.95	0.03	66.84	--	--	43000	66	1300	220	6700
		3/14/2002	--	-	98.77	NP	31.52	NP	67.25	--	--	55000	80	1600	190	8700
		6/9/2002	--	-	98.77	NP	30.47	NP	68.30	--	--	1500	<1.0	25	1.8	140
		12/18/2002	--	-	98.77	NP	31.55	NP	67.22	--	--	22300	16.4	306	10	1740
		6/3/2003	--	-	98.77	NP	31.51	NP	67.26	--	--	28200	216	914	70	4620
		10/10/2003	--	-	98.77	NP	31.73	NP	67.04	--	--	19700	117	407	19.4	2330
		4/26/2004	--	-	98.77	NP	31.22	NP	67.55	--	--	25000	454	595	22.6	3600
		10/28/2004	--	-	98.77	NP	31.38	NP	67.39	--	--	20500	580	719	15.4	3050
		4/27/2005	--	-	98.77	NP	31.67	NP	67.10	--	--	16800	541	594	7	2270
		11/22/2005	--	-	98.77	NP	31.70	NP	67.07	--	--	29100	792	595	7.95	2290
		4/25/2006	--	-	98.77	NP	30.98	NP	67.79	--	--	27500	819	554	<20.0	2130
		10/27/2006	--	-	98.77	NP	31.11	NP	67.66	--	--	31200	879	677	13.8	2340
		4/4/2007	--	-	98.77	NP	30.09	NP	68.68	--	--	44300	772	867	16.7	5740
		11/19/2007	--	-	98.77	NP	31.05	NP	67.72	--	--	30200	748	966	25.6	3510
		6/12/2008	--	-	98.77	NP	29.92	NP	68.85	--	--	43400	251	733	9.81	3310
		10/29/2008	--	-	98.77	NP	31.07	NP	67.70	--	--	36100	336	842	15.4	2370
		5/15/2009	--	-	98.77	NP	29.86	NP	68.91	--	--	48400	373	12	853	3400
	MW-6_20100211	2/11/2010	--	-	98.77	NP	29.88	NP	68.89	--	--	33000	279	705	18.5	2560
	MW-6_20100831	9/2/2010	--	-	98.77	NP	28.74	NP	70.03	1500	<380	35500	785	1740	980	7220
	MW-6_20110813	9/19/2011	--	-	98.77	NP	28.42	NP	70.35	950	<380	45700	191	1390	26.8	5280

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PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000	
MW-7		1/16/1992	--	-	98.42	NP	29.30	NP	69.12	--	--	3500	610	1000	6900	6600
		1/23/1992	--	-	98.42	NP	29.33	NP	69.09	--	--	--	--	--	--	--
		1/31/1992	--	-	98.42	NP	29.22	NP	69.20	--	--	--	--	--	--	--
		8/24/1993	--	-	98.42	29.66	29.76	0.10	68.74	--	--	--	--	--	--	--
		11/30/1993	--	-	98.42	30.3	30.34	0.04	68.11	--	--	--	--	--	--	--
		3/7/1994	--	-	98.42	30.96	31.23	0.27	67.39	--	--	--	--	--	--	--
		7/14/1994	--	-	98.42	30.71	30.85	0.14	67.68	--	--	--	--	--	--	--
		10/21/1994	--	-	98.42	30.98	31.18	0.20	67.39	--	--	--	--	--	--	--
		12/30/1994	--	-	98.42	26.08	31.25	5.17	71.05	--	--	--	--	--	--	--
		3/16/1995	--	-	98.42	31.5	31.98	0.48	66.80	--	--	--	--	--	--	--
		6/22/1995	--	-	98.42	29.24	30.86	1.62	68.78	--	--	--	--	--	--	--
		9/19/1995	--	-	98.42	29.34	29.82	0.48	68.96	--	--	--	--	--	--	--
		12/18/1995	--	-	98.42	29.35	29.50	0.15	69.03	--	--	--	--	--	--	--
		3/14/1996	--	-	98.42	NP	27.80	NP	70.62	--	--	--	--	--	--	--
		6/22/1996	--	-	98.42	27.76	27.81	0.05	70.65	--	--	--	--	--	--	--
		9/12/1996	--	-	98.42	28.58	28.59	0.01	69.84	--	--	--	--	--	--	--
		12/17/1996	--	-	98.42	28.19	28.22	0.03	70.22	--	--	--	--	--	--	--
		3/17/1998	--	-	98.42	NG	NG	NG	NG	--	--	55300	290	1100	1200	7400
		9/29/1998	--	-	98.42	NG	NG	NG	NG	--	--	25000	61	530	220	3300
		12/10/1998	--	-	98.42	NG	NG	NG	NG	--	--	31000	81	740	260	4700
		3/10/1999	--	-	98.42	NG	NG	NG	NG	--	--	43000	<50	760	270	4600
		6/22/1999	--	-	98.42	NG	NG	NG	NG	--	--	32000	<50	590	200	3700
		9/28/1999	--	-	98.42	NG	NG	NG	NG	--	--	33000	110	72	230	4300
		1/4/2000	--	-	98.42	NG	NG	NG	NG	--	--	17000	240	750	400	4100
		3/30/2000	--	-	98.42	NG	NG	NG	NG	--	--	20000	10	520	170	3100
		6/27/2000	--	-	98.42	NG	NG	NG	NG	--	--	17000	9	470	130	2700
		9/25/2000	--	-	98.42	NG	NG	NG	NG	--	--	13000	5.4	330	110	1900
		12/27/2000	--	-	98.42	NP	29.07	NP	69.35	--	--	16000	12	360	120	2100
		9/16/2001	--	-	98.42	31.54	31.67	0.13	66.85	--	--	--	--	--	--	--
		12/4/2001	--	-	98.42	31.85	31.95	0.10	66.55	--	--	32000	260	810	120	4600
		3/14/2002	--	-	98.42	NP	31.01	NP	67.41	--	--	31000	160	810	140	3800
		6/9/2002	--	-	98.42	NP	30.42	NP	68.00	--	--	28000	190	920	170	4800
		12/18/2002	--	-	98.42	31.34	31.35	0.01	67.08	--	--	31100	236	924	102	4770
		6/3/2003	--	-	98.42	30.9	30.91	0.01	67.52	--	--	26600	97.4	887	44.2	4890
		10/10/2003	--	-	98.42	31.24	31.29	0.05	67.17	--	--	40000	164	1350	57.5	7740
		4/26/2004	--	-	98.42	NP	29.85	NP	68.57	--	--	37900	207	1080	76.9	5850

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA							
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)	
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000		
MW-7		10/28/2004	--	-	98.42	31.52	31.56	0.04	66.89	--	--	17700	178	644	38.2	2710	
		4/27/2005	--	-	98.42	30.06	31.35	1.29	68.04	--	--	88600	160	1460	37.8	7340	
		11/22/2005	--	-	98.42	30.76	30.77	0.01	67.66	--	--	33400	194	1130	25.8	5360	
		4/25/2006	--	-	98.42	NP	29.60	NP	68.82	--	--	35400	242	998	36.4	4930	
		10/27/2006	--	-	98.42	NP	29.95	NP	68.47	--	--	27900	140	704	40.8	3830	
		4/4/2007	--	-	98.42	NP	28.88	NP	69.54	--	--	3000	8	116	<5.00	133	
		11/19/2007	--	-	98.42	NP	29.42	NP	69.00	--	--	23900	41.1	808	31.4	3340	
		6/12/2008	--	-	98.42	NP	28.70	NP	69.72	--	--	1200	0.52	17.9	0.54	4.2	
		10/29/2008	--	-	98.42	NP	29.36	NP	69.06	--	--	13300	7.52	363	11.6	1320	
		5/15/2009	--	-	98.42	NP	28.62	NP	69.80	--	--	10200	3.7	7.9	359	1150	
		MW-7_20100211	2/11/2010	--	-	98.42	NP	28.66	NP	69.76	--	--	2860	1.3	121	2.6	284
		MW-7_20100831	9/2/2010	--	-	98.42	NP	27.62	NP	70.80	120	<380	1130	<1.0	38.8	<1.0	59.7
		MW-7_20110813	9/19/2011	--	-	98.42	NP	27.29	NP	71.13	150	<380	2780	3.0	77.3	11.4	142

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA							
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)	
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000	
MW-8		1/16/1992	--	-	98.8	NP	49.00	NP	49.80	--	--	--	--	--	--	--	
		1/23/1992	--	-	98.8	NP	49.17	NP	49.63	--	--	--	--	--	--	--	
		1/31/1992	--	-	98.8	NP	50.00	NP	48.80	--	--	--	--	--	--	--	
		3/17/1998	--	-	98.8	NG	NG	NG	NG	--	--	6000	120	34	46	280	
		9/29/1998	--	-	98.8	NG	NG	NG	NG	--	--	1600	180	41	89	170	
		12/10/1998	--	-	98.8	NG	NG	NG	NG	--	--	25000	2300	500	4500	2600	
		3/10/1999	--	-	98.8	NG	NG	NG	NG	--	--	14000	1000	420	1500	1500	
		6/22/1999	--	-	98.8	NG	NG	NG	NG	--	--	3700	66	190	9	340	
		9/28/1999	--	-	98.8	NG	NG	NG	NG	--	--	760	55	65	20	130	
		1/4/2000	--	-	98.8	NG	NG	NG	NG	--	--	690	49	6	25	18	
		6/27/2000	--	-	98.8	NG	NG	NG	NG	--	--	1800	260	84	87	300	
		12/27/2000	--	-	98.8	NP	46.57	NP	52.23	--	--	360	87	<1	25	20	
		9/16/2001	--	-	98.8	NP	48.87	NP	49.93	--	--	--	--	--	--	--	
		12/4/2001	--	-	98.8	NP	49.09	NP	49.71	--	--	--	--	--	--	--	
		3/14/2002	--	-	98.8	NP	47.87	NP	50.93	--	--	4100	470	89	140	360	
		6/9/2002	--	-	98.8	NP	47.39	NP	51.41	--	--	25000	3200	830	1700	2900	
		12/18/2002	--	-	98.8	NP	48.03	NP	50.77	--	--	2530	389	65.4	77.1	256	
		6/3/2003	--	-	98.8	NP	48.03	NP	50.77	--	--	3820	974	120	72.2	286	
		10/10/2003	--	-	98.8	NP	48.50	NP	50.30	--	--	9190	1980	314	622	1490	
		4/26/2004	--	-	98.8	NP	41.01	NP	57.79	--	--	15800	2340	563	450	2110	
		10/28/2004	--	-	98.8	NP	48.50	NP	50.30	--	--	24500	5360	1350	246	3910	
		4/27/2005	--	-	98.8	NP	48.43	NP	50.37	--	--	2250	310	65.3	24.7	166	
		11/22/2005	--	-	98.8	dry	dry	dry	dry	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
		4/25/2006	--	-	98.8	NP	48.40	NP	50.40	--	--	21700	3100	907	44.4	2130	
		10/27/2006	--	-	98.8	dry	dry	dry	dry	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
		4/4/2007	--	-	98.8	NP	48.17	NP	50.63	--	--	14300	1820	749	29.7	261	
		11/19/2007	--	-	98.8	NP	47.59	NP	51.21	--	--	227	35.1	3.42	1.32	5.34	
		6/12/2008	--	-	98.8	NP	47.32	NP	51.48	--	--	15100	1650	648	191	1140	
		10/29/2008	--	-	98.8	NP	47.16	NP	51.64	--	--	<50.0	<0.500	<0.500	<0.500	<3.00	
		5/15/2009	--	-	98.8	NP	46.45	NP	52.35	--	--	139	15.3	<1.0	<1.0	5.8	
		MW-8_20100211	2/11/2010	--	-	98.8	NP	46.41	NP	52.39	--	--	6690	1240	621	141	607
		MW-8_20100831	9/2/2010	--	-	98.8	NP	46.64	NP	52.16	850	<380	14000	1490	1060	325	2520
		MW-8_20110813	9/19/2011	--	-	98.8	NP	47.00	NP	51.80	1100	1200	23900	826	812	44.2	1880

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
PACIFIC CONVENIENCE AND FUELS 2611255
19924 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Well I.D.	Lab I.D.	Date	GROUNDWATER GAUGING DATA							GROUNDWATER ANALYTICAL DATA						
			DTB from TOC (ft)	TOS Elevation (ft)	TOC Elevation (ft)	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	NW-DRO (C12-C24) (UG/L)	NW-ORO (C24-C40) (UG/L)	NW-GRO (C6-C12) (UG/L)	Benzene (UG/L)	Ethylbenzene (UG/L)	Toluene (UG/L)	Xylene (Total) (UG/L)
Applied Action Level: 2007 MTCA Method A			NGV	NGV	NGV	NGV	NGV	NGV	500	500	800	5	700	1000	1000	
MW-9	MW-9_20100831	9/2/2010	--	-	NSVD	NP	28.90	NP	NSVD	270	<380	1760	190	159	3.6	38.6
	MW-9_20110813	9/19/2011	--	-	98.99	NP	28.60	NP	70.39	780	<380	11100	134	569	<10.0	553
MW-10	MW-10_20100831	9/2/2010	--	-	NSVD	NP	28.23	NP	NSVD	1700	<380	43300	5.3	2100	57.7	9650
	MW-10_20110813	9/19/2011	--	-	98.51	NP	27.90	NP	70.61	520	<390	7270	1.5	131	2.6	477
MW-11	MW-11_20100831	9/2/2010	--	-	NSVD	NP	27.12	NP	NSVD	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-11_20110813	9/19/2011	--	-	98.11	NP	26.87	NP	71.24	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
MW-12	MW-12_20100831	9/2/2010	--	-	NSVD	NP	26.40	NP	NSVD	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-12_20110813	9/19/2011	--	-	97.76	NP	26.42	NP	71.34	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
MW-13	MW-13_20100831	9/2/2010	--	-	NSVD	NP	26.68	NP	NSVD	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
	MW-13_20110813	9/19/2011	--	-	97.33	NP	26.37	NP	70.96	<76	<380	<50.0	<1.0	<1.0	<1.0	<3.0
MW-14	MW-14_20110813	8/16/2011	--	-	99.2	NP	28.31	NP	70.89	540	<380	17900	172	731	50.4	2740
MW-15	MW-15_20110813	8/16/2011	--	-	98.49	NP	26.70	NP	71.79	<80	<400	62.7	<1.0	<1.0	<1.0	<3.0
MW-16	MW-16_20110813	9/19/2011	--	-	98.35	NP	27.82	NP	70.53	1000	<380	67900	1630	1780	4250	9320
MW-17	MW-17_20110813	9/19/2011	--	-	99.39	NP	28.47	NP	70.92	1200	<390	41300	176	1270	67.1	4830

Gauging Notes:

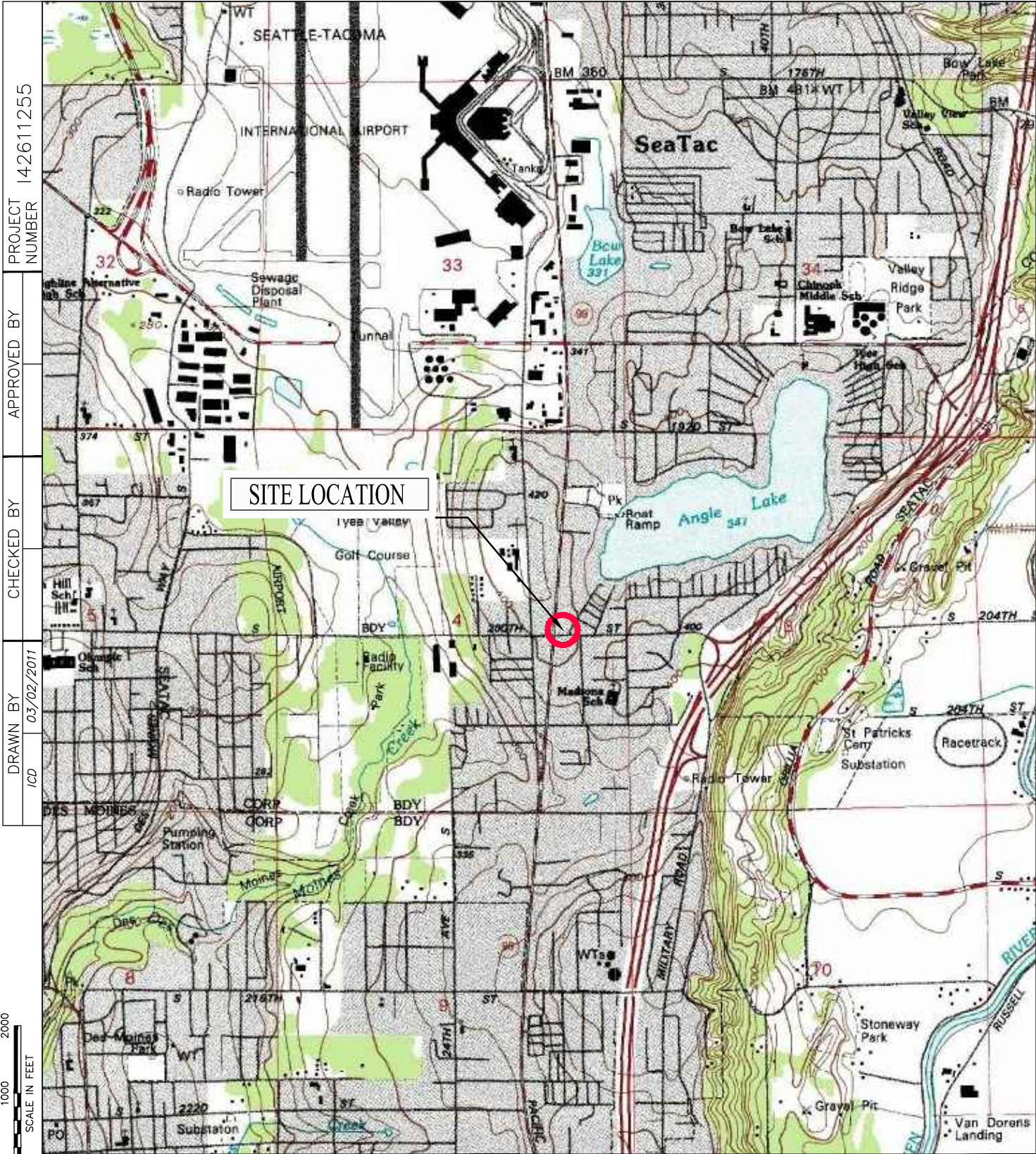
TOC - Top of Casing
DTB from TOC - Depth to Bottom of well from Top of Casing
TOS - Top of Screen
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
NG - Not gauged
NSVD - Not surveyed
DRY - Well is dry
-- - No information available
NGV - No guidance value

Analytical Notes:

Results in Bold exceed applicable action limits
2007 MTCA Method A - 2007 MTCA Method A
-- - No information available
< - Not detected at or above indicated laboratory reporting limit
DRY - Well was Dry; sample could not be taken
NS - Well not sampled.
UG/L - micrograms/liter

Figures

Figure 1	Property Location Map
Figure 2	Property Layout Map
Figure 3	Soil Analytical Results Map
Figure 4	Groundwater Elevation Contour Map –09/19/2011
Figure 5	Groundwater Analytical Results Map – 09/19/2011
Figure 6	Property Layout with Geologic Cross Section Lines A–A’ and B–B’
Figure 7	Geologic Cross Section A – A’
Figure 8	Geologic Cross Section B – B’



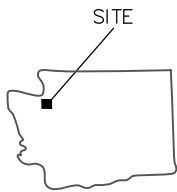
PROJECT NUMBER 142611255

APPROVED BY

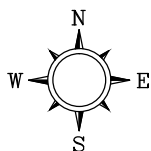
CHECKED BY

DRAWN BY
03/02/2011

SCALE IN FEET
0 1000 2000



LATITUDE 47D 25M 22S NORTH
LONGITUDE 122D 17M 45S WEST

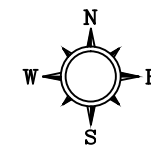
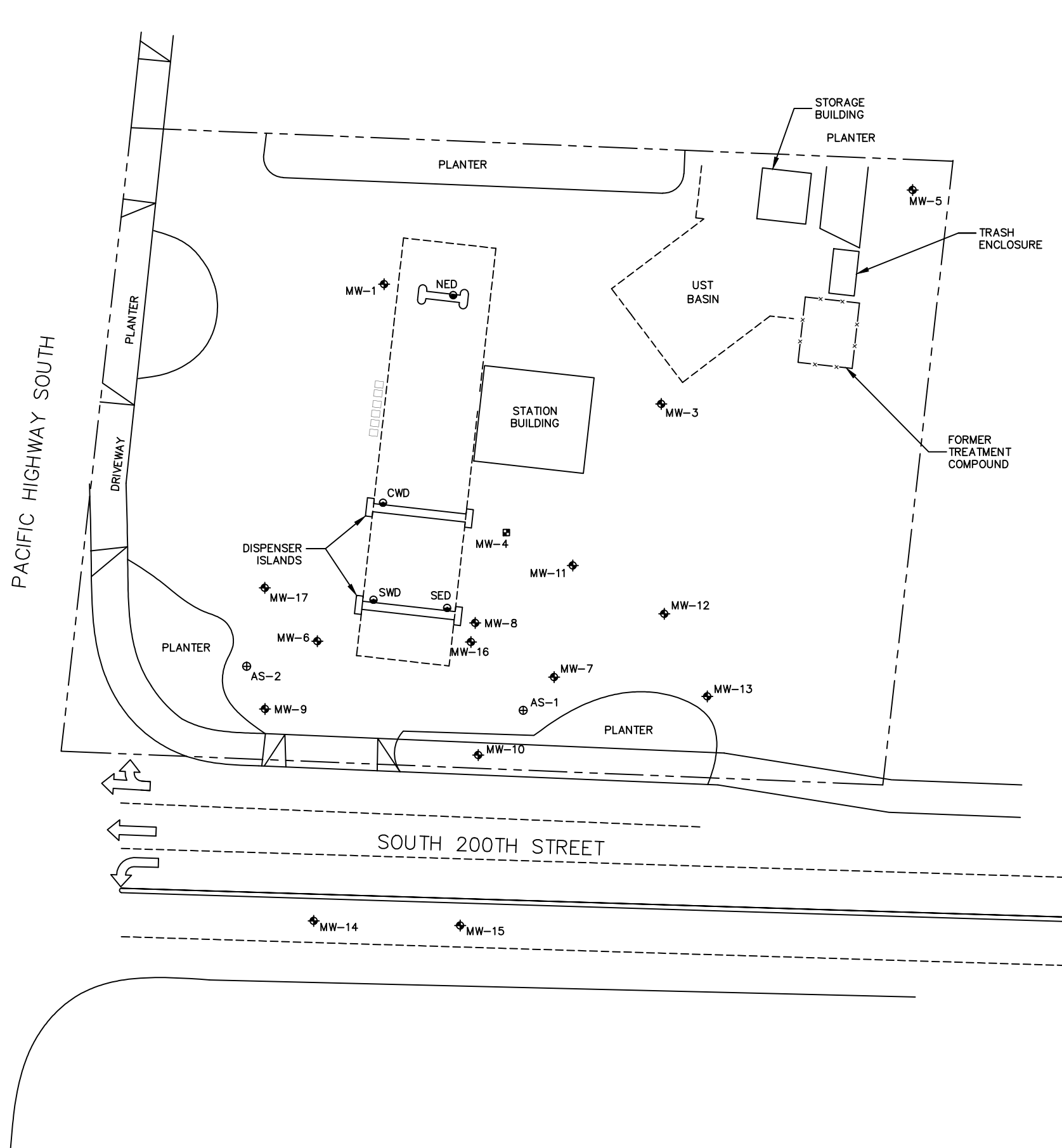


FACILITY No. 2611255

FIGURE 1

PROPERTY LOCATION MAP

19964 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON



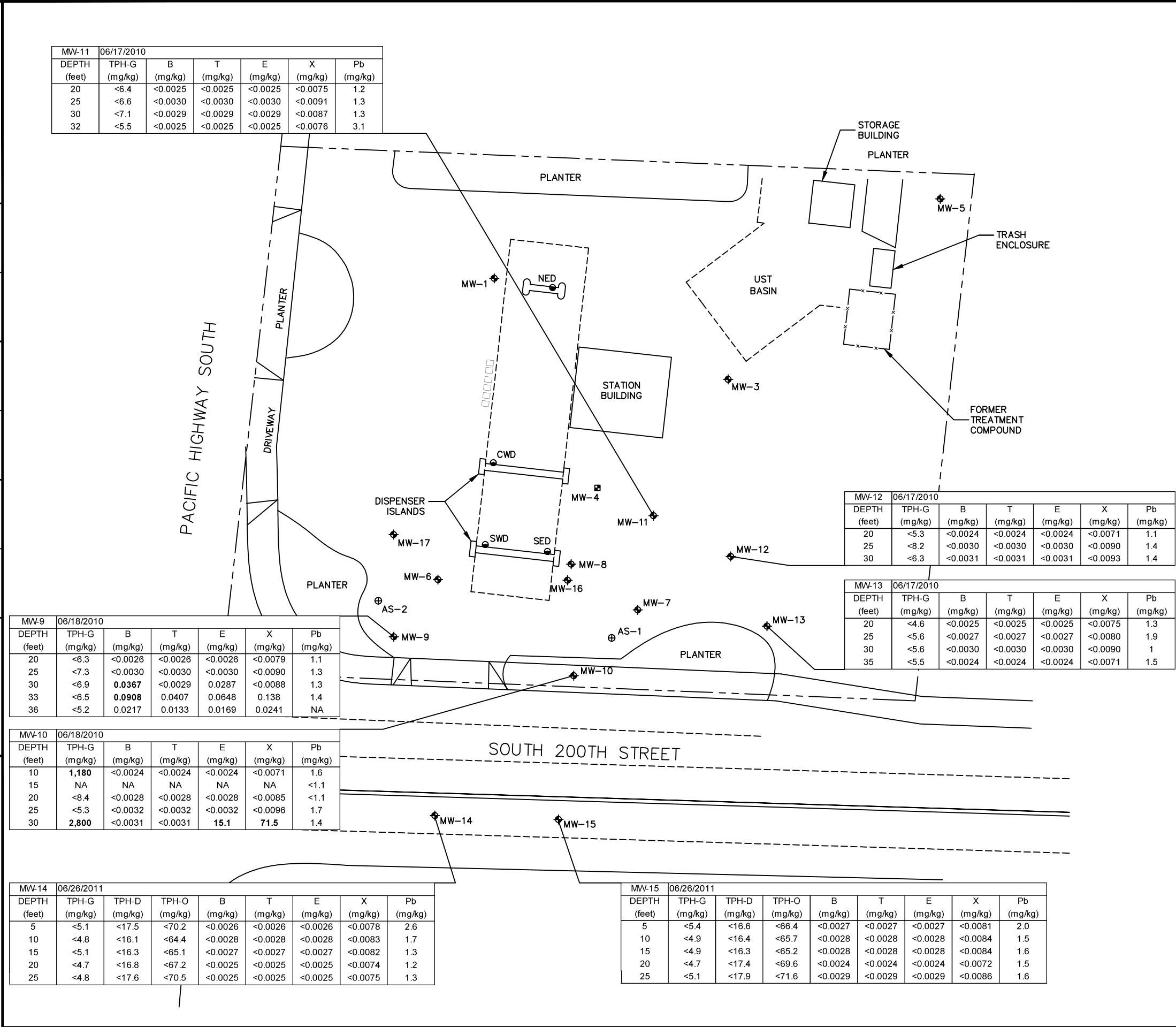
LEGEND	
MW-1 ◆	GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
MW-4 ■	RECOVERY WELL LOCATION AND DESIGNATION
NED ●	SOIL SAMPLE LOCATION (EMCON)
AS-1 ⊕	AIR SPARGE WELL LOCATION AND DESIGNATION

0 15 30
SCALE IN FEET



FIGURE 2
PROPERTY LAYOUT MAP

FACILITY No. 2611255
19924 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON



LEGEND

MW-1

GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

MW-4

RECOVERY WELL LOCATION AND DESIGNATION

NED

SOIL SAMPLE LOCATION (EMCON)

AS-1

AIR SPARGE WELL LOCATION AND DESIGNATION

TPH-G

TOTAL PETROLEUM HYDROCARBONS - GASOLINE (mg/kg)

TPH-D

TOTAL PETROLEUM HYDROCARBONS - DIESEL (mg/kg)

TPG-O

TOTAL PETROLEUM HYDROCARBONS - HEAVY OIL (mg/kg)

B

BENZENE (mg/kg)

T

TOLUENE (mg/kg)

E

ETHYLBENZENE (mg/kg)

X

TOTAL XYLENES (mg/kg)

Pb

LEAD (mg/kg)

mg/kg

MILLIGRAMS PER KILOGRAM

NA

NOT ANALYZED

BOLD VALUES INDICATE CONCENTRATIONS DETECTED ABOVE THE MTCA METHOD A CLEANUP LEVEL

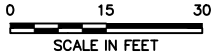
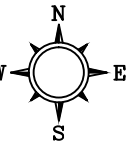
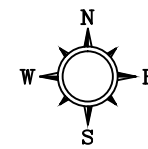
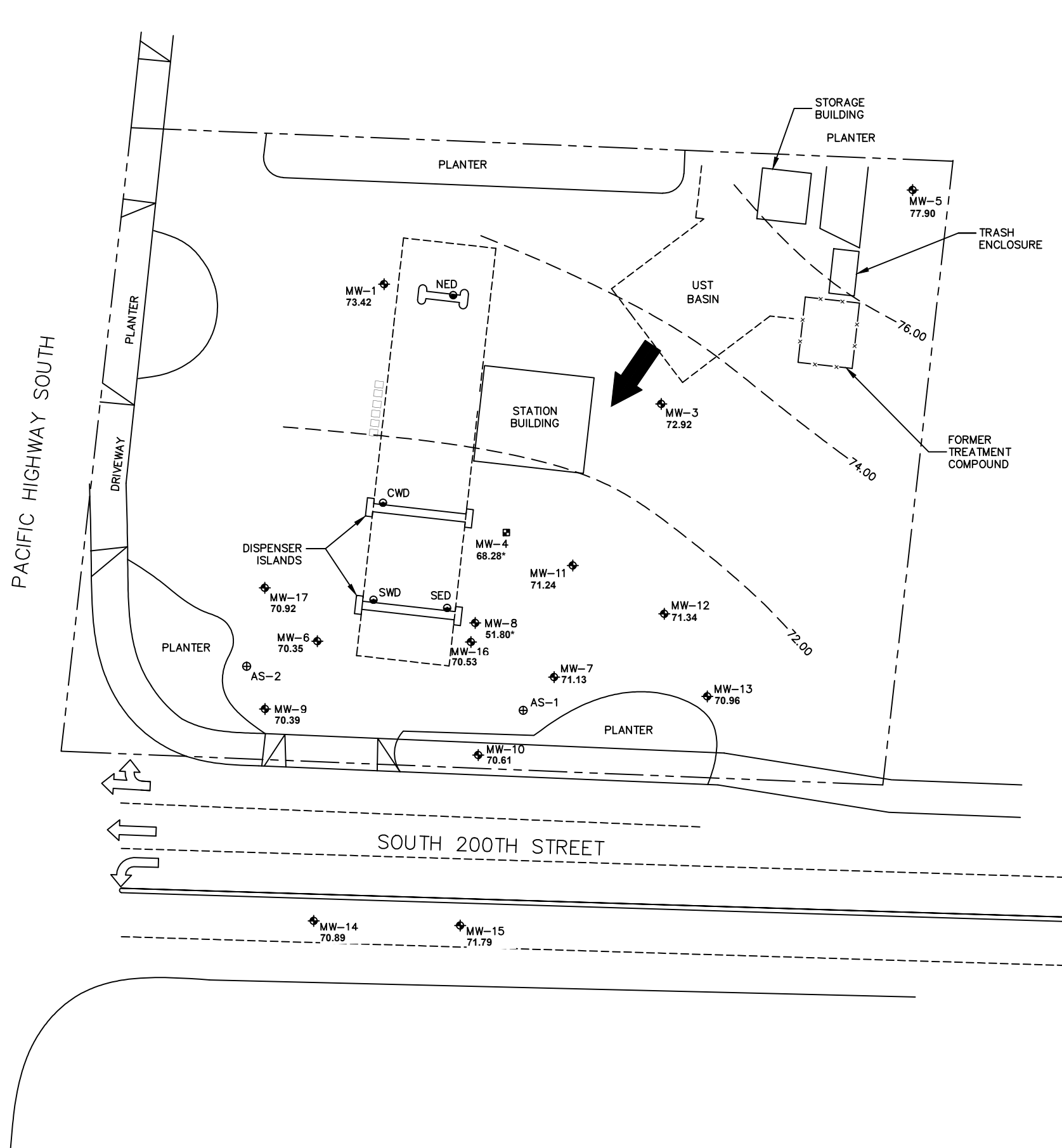


FIGURE 3
SOIL ANALYTICAL RESULTS MAP

FACILITY No. 2611255
19924 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON



- LEGEND**
- MW-1 ◆ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
 - MW-4 ■ RECOVERY WELL LOCATION AND DESIGNATION
 - NED ● SOIL SAMPLE LOCATION (EMCON)
 - AS-1 ⊕ AIR SPARGE WELL LOCATION AND DESIGNATION
 - 77.90 GROUNDWATER ELEVATION IN FEET, SEPTEMBER 19, 2011
 - 76.00 — — GROUNDWATER CONTOUR IN FEET, SEPTEMBER 19, 2011
CONTOUR INTERVAL=2.00 FEET
 - ← APPROXIMATE GROUNDWATER FLOW DIRECTION
 - * NOT USED IN CONTOURING

NOTES

MW-14 AND MW-15 GAUGED ON 08/16/2011

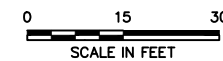
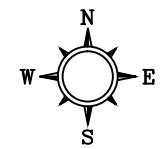
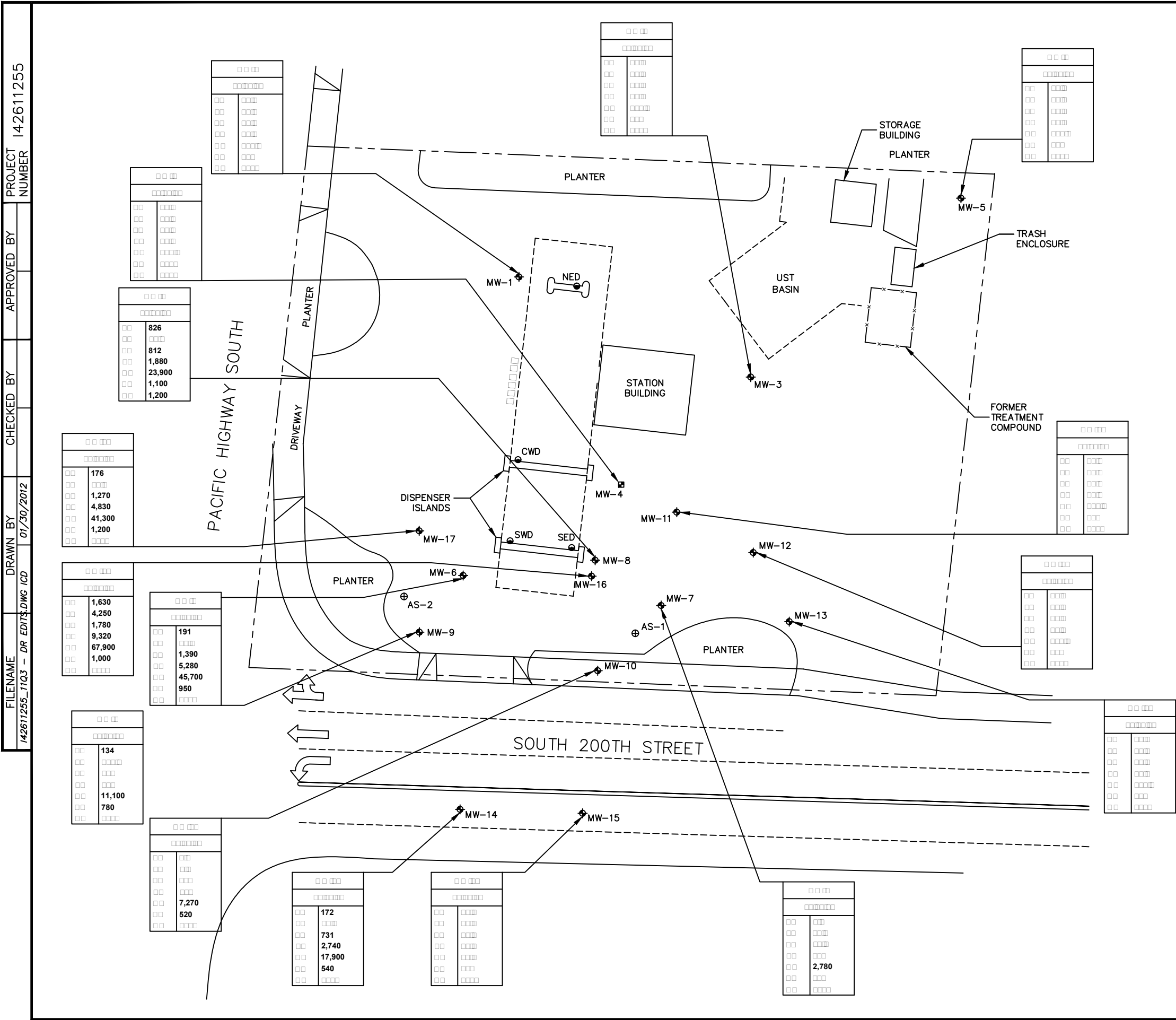


FIGURE 4
GROUNDWATER ELEVATION CONTOUR MAP
09/19/2011

FACILITY No. 2611255
19924 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON



- LEGEND**
- MW-1 ◆ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
 - MW-4 ■ RECOVERY WELL LOCATION AND DESIGNATION
 - NED ● SOIL SAMPLE LOCATION (EMCON)
 - AS-1 ⊕ AIR SPARGE WELL LOCATION AND DESIGNATION
 - B= BENZENE (µg/L)
 - T= TOLUENE (µg/L)
 - E= ETHYLBENZENE (µg/L)
 - X= TOTAL XYLENES (µg/L)
 - G= TPH-G - TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (µg/L)
 - D= TPH-D - TOTAL PETROLEUM HYDROCARBONS AS DIESEL (µg/L)
 - O= TPH-O - TOTAL PETROLEUM HYDROCARBONS AS OIL (µg/L)
 - µg/L MICROGRAMS PER LITER
 - < NOT DETECTED ABOVE LIMIT NOTED
 - BOLD VALUES INDICATE EXCEEDANCE OF MTCA METHOD A CLEANUP LEVELS

NOTES

MW-14 AND MW-15 SAMPLED ON 08/16/2011



FIGURE 5
GROUNDWATER ANALYTICAL RESULTS MAP
09/19/2011

FACILITY No. 2611255
19924 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON

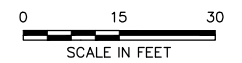
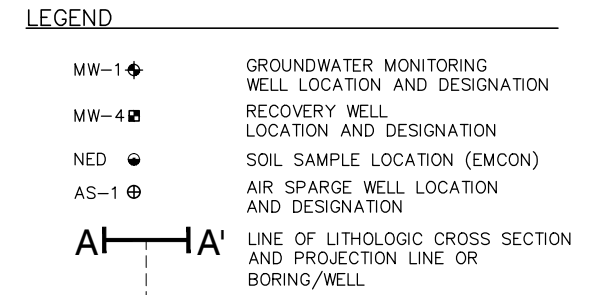
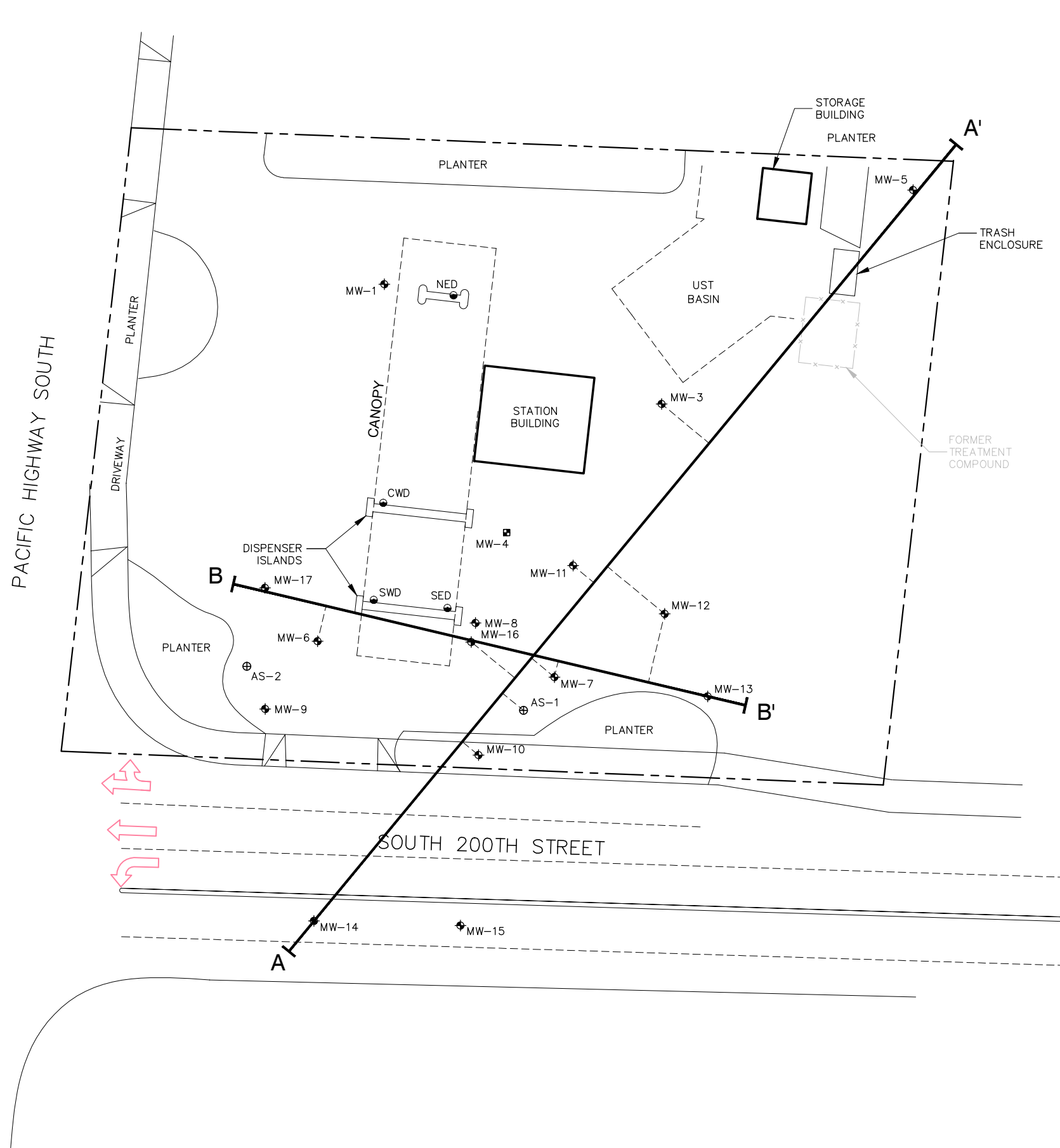
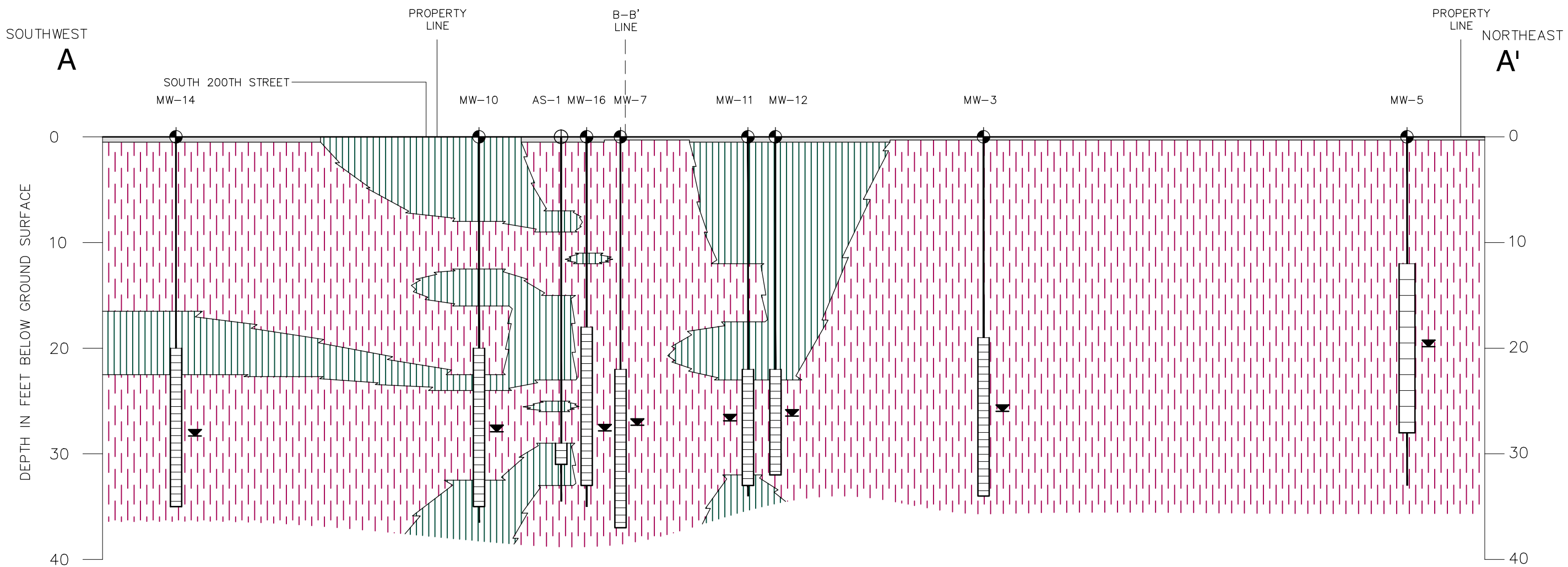


FIGURE 6
PROPERTY LAYOUT WITH GEOLOGIC
CROSS SECTION
LINES A-A' AND B-B'

FACILITY No. 2611255
199 4 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON



LEGEND

- | | | | |
|---|--|--|--|
| <div>AS-1</div> <div>⊕</div> <div>— WELL</div> | <div>MW-3</div> <div>●</div> <div>— WELL</div> | <div>— FILTER PACK INTERVAL</div> | <div>▬</div> <div>ASPHALT</div> |
| <div>▬</div> <div>— GROUNDWATER ELEVATION ON 09/19/2011</div> | <div>▬</div> <div>— SCREENED INTERVAL</div> | <div>▬</div> <div>— MAXIMUM DEPTH EXPLORED</div> | <div>▬</div> <div>— SOIL CONTACT</div> |
-
- | | |
|---|---|
| <div>▬</div> <div>ML= INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS, WITH SLIGHT PALSTICITY</div> | <div>▬</div> <div>SM-SP= SILTY-SANDS, SAND-SILT MIXTURES; POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES</div> |
|---|---|

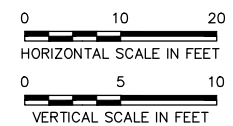
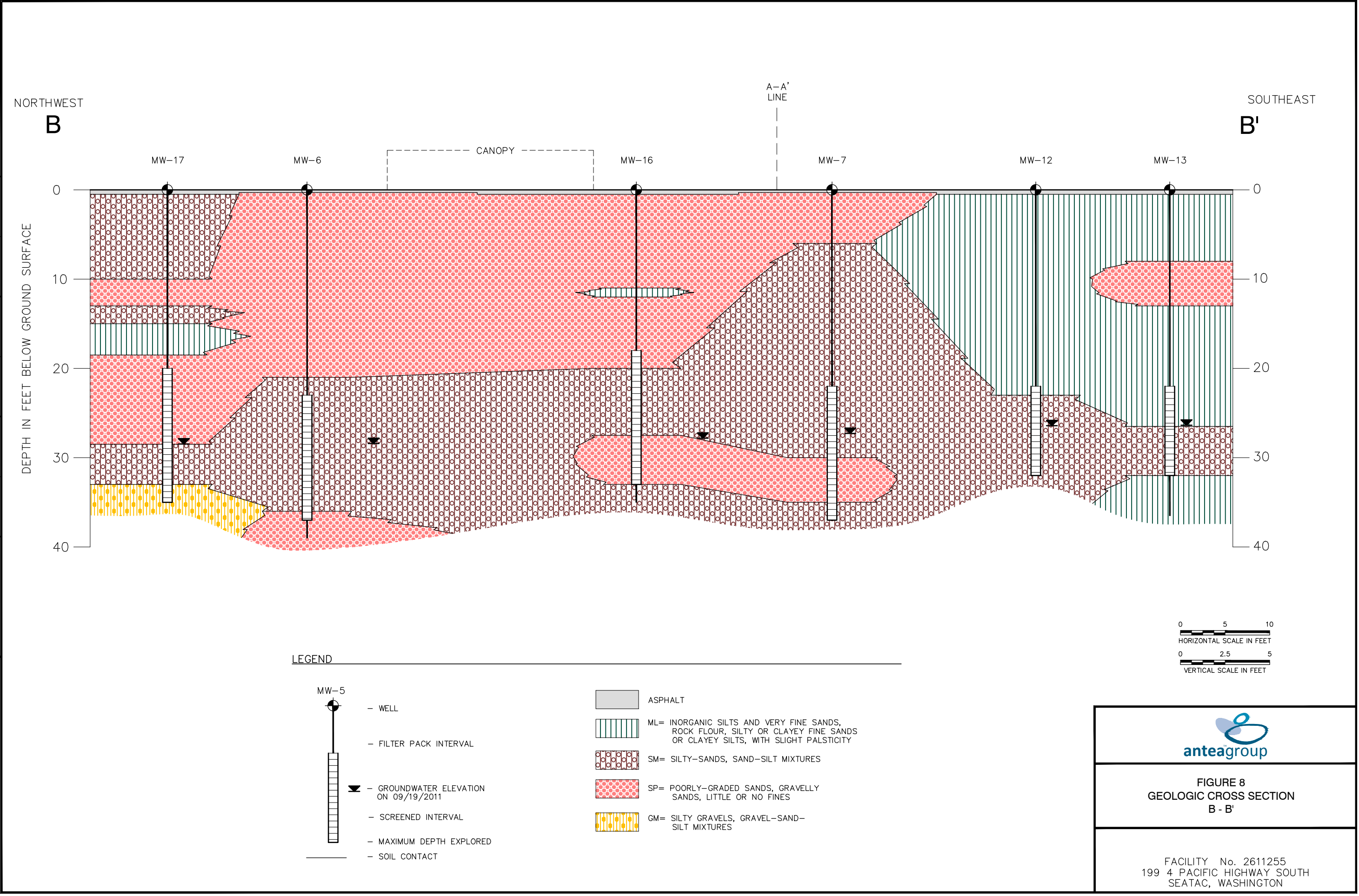


FIGURE 7

GEOLOGIC CROSS SECTION
A - A'

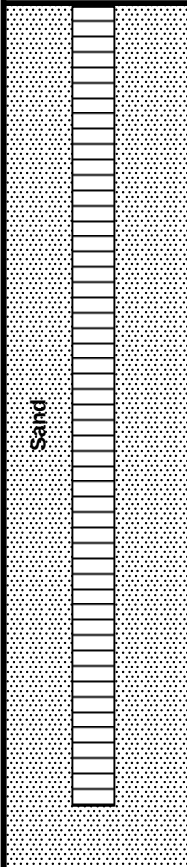
FACILITY No. 2611255
 199 4 PACIFIC HIGHWAY SOUTH
 SEATAC, WASHINGTON



Appendix A

Boring Logs

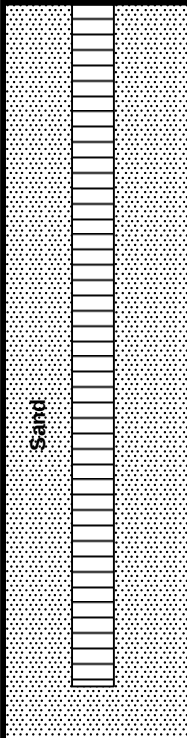
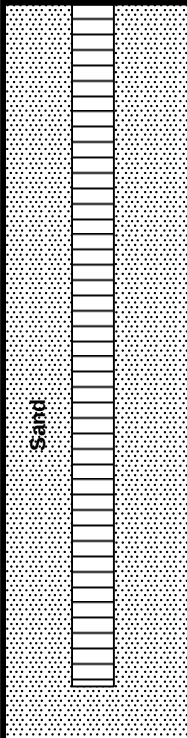
WELL/BORING LOCATION MAP						Delta Consultants				WELL/BORING: MW-9			
						INSTALLATION DATE: 6/18/2010				DRILLING METHOD: Hollow Stem Auger			
						PROJECT: I42611255				SAMPLING METHOD: DM Split Spoon			
						CLIENT: COP-ELT				BORING DIAMETER: 8.25 inches			
						LOCATION: 19924 International Blvd.				BORING DEPTH: 36.0 feet			
						CITY: SeaTac				WELL CASING: SCH 40 PVC 2"			
						STATE: WA				WELL SCREEN: 20.0 – 35.0 feet (0.010")			
						DRILLER: Cascade Drilling, Inc.				SAND PACK: 18.0 – 36.0 (2x12)			
WELL/BORING COMPLETION		FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.99	
											SURVEY DATE:	10/13/10	
											DTW:	28.90 on 9/2/10	
											DESCRIPTION/LOGGED BY: Megan MacDonald		
Concrete											Original Surface = asphalt Air-knifed to 5 feet bgs.		
Grout							1						
							2						
							3						
							4						
							5						
				MST	0.9	50/5"	6		SM		Silty <u>SAND</u> with gravel; brown; 50% sand; 40% silt; 10% small gravel; no staining; moist; no odor.		
							7						
							8						
							9						
				MST	1.4	50/6"	10		SM		Gravely Silty <u>SAND</u> : brown; 50% sand; 35% silt; 15% small gravel; no staining; moist; no odor.		
						11							
						12							
						13							
						14				Driller felt lithology change at 14.5 feet bgs.			
			MST	3.0	50/4"	15		ML		Mostly slough (Silty <u>SAND</u> from up top). Bottom 2" = Sandy <u>SILT</u> : brown; 60% silt; 40% fine sand; no staining; no odor.			
						16							
						17							
Bentonite						18							
Sand						19							
				MST	1.0	50/5"	20		SM		Silty <u>SAND</u> : brown; 80% sand; 20% silt; moist; no staining; no odor; slough? Shoe has Sandy <u>SILT</u> : brown; 70% silt; 30% sand; moist: no odor.		
							21						
				MST	1.2	50/6"	22		ML				

WELL/BORING LOCATION MAP					Delta Consultants					WELL/BORING: MW-9				
					INSTALLATION DATE: 6/18/2010					DRILLING METHOD: Hollow Stem Auger				
					PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
					CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
					LOCATION: 19924 International Blvd.					BORING DEPTH: 36.0 feet				
					CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
					STATE: WA					WELL SCREEN: 20.0 – 35.0 feet (0.010")				
					DRILLER: Cascade Drilling, Inc.					SAND PACK: 18.0 – 36.0 (2x12)				
WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.99		
	▽	▼									SURVEY DATE:	10/13/10		
											DTW:	28.90 on 9/2/10		
	DESCRIPTION/LOGGED BY: Megan MacDonald													
	▽		MST	1.1	50/5"	23			ML		Gravelly Sandy <u>SILT</u> : brown; 50% silt; 35% sand; 15% gravel; moist; no odor.			
			MST	2.0	50/6"	24			ML		Sandy <u>SILT</u> : brown; 70% silt; 30% fine to medium sand; moist; no odor.			
						25					Contact at 25 feet			
						26					Silty <u>SAND</u> : brown; 80% sand; 20% silt; no staining; moist; no odor.			
						27								
						28								
						29								
			WET	9.5	50/6"	30			SM		Silty <u>SAND</u> : gray; 80% sand; 20% silt; wet; odor.			
						31								
						32								
						33								
			MST	6.5	50/6'	34			ML		Slough on top (Silty <u>SAND</u>); bottom 6 inches = Sandy <u>SILT</u>			
			MST	1.6	50/6'	35			ML		Same as Above: wet silty sand slough with 6" of Sandy Silt at bottom.			
						36								
						37								
						38								
						39								
						40								
						41								
						42								
						43								
						44								

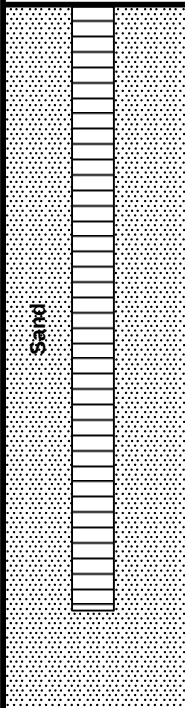
WELL/BORING LOCATION MAP			Delta Consultants					WELL/BORING: MW-10				
			INSTALLATION DATE: 6/18/2010					DRILLING METHOD: Hollow Stem Auger				
			PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
			CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
			LOCATION: 19924 International Blvd.					BORING DEPTH: 36.5 feet				
			CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
			STATE: WA					WELL SCREEN: 20.0 – 35.0 feet (0.010")				
			DRILLER: Cascade Drilling, Inc.					SAND PACK: 18.0 – 36.5 (2x12)				
WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.51
	☒	▼									SURVEY DATE:	10/13/10
											DTW:	28.23 on 9/2/10
											DESCRIPTION/LOGGED BY: Megan MacDonald	
Concrete						1						
						2						
						3						
						4						
						5						
			MST	8.7	27	6			ML		Gravelly Sandy <u>SILT</u> : brown; 50% silt; 35% fine to medium sand; 15% small rounded gravel; moist; no staining; no odor.	
					50/6"	7						
						8						
						9						
			MST	357.7	50/6"	10			SM		Gravelly Silty <u>SAND</u> : 60% fine to medium sand; 25% silt; 15% gravel; gray staining; moist; odor.	
						11						
						12						
						13						
						14						
			MST	17.6	50/6"	15			ML		Gravelly Sandy <u>SILT</u> : brown; 50% silt; 35% sand; 15% small gravel; no staining; odor.	
						16			SM			
						17					Gravelly Silty <u>SAND</u> : brown; 70% fine to medium sand; 15% silt; 15% small gravel; moist; no staining; no odor.	
						18						
						19						
			DMP	8.7	50/5"	20			SM		Silty <u>SAND</u> : brown; 65% silt; 35% fine sand; dry; no staining no odor.	
						21						
			DMP	4.7	50/6"	22			SM		Gravelly Sandy <u>SILT</u> : 60% silt; 25% sand; 15% gravel; dry; no staining; no odor.	
Bentonite												
Sand												

WELL/BORING LOCATION MAP					Delta Consultants					WELL/BORING: MW-10				
					INSTALLATION DATE: 6/18/2010					DRILLING METHOD: Hollow Stem Auger				
					PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
					CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
					LOCATION: 19924 International Blvd.					BORING DEPTH: 36.5 feet				
					CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
					STATE: WA					WELL SCREEN: 20.0 – 35.0 feet (0.010")				
					DRILLER: Cascade Drilling, Inc.					SAND PACK: 18.0 – 36.5 (2x12)				
WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION		98.51	
	▽	▼									SURVEY DATE:		10/13/10	
											DTW:		28.23 on 9/2/10	
	DESCRIPTION/LOGGED BY: Megan MacDonald													
Sand	▽		DRY			23			ML			Gravelly Sandy <u>SILT</u> : brown; dry; no staining; no odor.		
			MST	2.4	50/5"	24			SM			Silty <u>SAND</u> : brown; 80% sand; 20% silt; moist; no staining; no odor.		
			MST	4.9	50/5"	25						Same as Above.		
						26								
						27								
						28								
						29								
			WET	3,374	50/6"	30			SM			Silty <u>SAND</u> : gray; 80% fine to medium sand; 20% silt; wet; odor.		
						31								
			WET	5,918	50/6"	32			ML			Slough and heaving Sands – No native recovery; Back into Sandy <u>SILT</u> ; but can't retrieve sample.		
						33								
						34								
			WET	4,437	50/6"	35			ML			Same as Above: no native recovery; slough and heaving Sands.		
						36								
						37								
						38								
						39								
						40								
						41								
						42								
						43								
						44								

WELL/BORING LOCATION MAP						Delta Consultants					WELL/BORING: MW-11				
						INSTALLATION DATE: 6/17/2010					DRILLING METHOD: Hollow Stem Auger				
						PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
						CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
						LOCATION: 19924 International Blvd.					BORING DEPTH: 34.0 feet				
						CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
						STATE: WA					WELL SCREEN: 22.0 – 32.0 feet (0.010")				
						DRILLER: Cascade Drilling, Inc.					SAND PACK: 20.0 – 34.0 (2x12)				
WELL/BORING COMPLETION		FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.11		
		▽	▼									SURVEY DATE:	10/13/10		
												DTW:	27.12 on 9/2/10		
												DESCRIPTION/LOGGED BY: Megan MacDonald			
Concrete												Original Surface = asphalt			
Grout				MST	0.6	50/6"	6			ML		Gravelly Sandy <u>SILT</u> : brown; 50% silt; 30% sand; 20% small angular gravel; no staining; no odor.			
							7								
							8								
							9								
				MST	0.2	50/6"	10			ML		Same as Above.			
							11								
							12								
							13								
							14								
				MST	0.1	50/5"	15			SM		Gravelly Silty <u>SAND</u> : brown; 50% fine sand; 35% silt; 15% small rounded gravel; no staining; no odor.			
							16								
Bentonite Sand							17								
							18								
							19								
				MST	0.2	50/5"	20			ML		Gravelly Sandy <u>SILT</u> : brown; 60% silt; 25% sand; 15% small rounded gravel; no staining; no odor.			
							21								
							22								

WELL/BORING LOCATION MAP						Delta Consultants				WELL/BORING: MW-11		
INSTALLATION DATE: 6/17/2010						DRILLING METHOD: Hollow Stem Auger						
PROJECT: I42611255						SAMPLING METHOD: DM Split Spoon						
CLIENT: COP-ELT						BORING DIAMETER: 8.25 inches						
LOCATION: 19924 International Blvd.						BORING DEPTH: 34.0 feet						
CITY: SeaTac						WELL CASING: SCH 40 PVC 2"						
STATE: WA						WELL SCREEN: 22.0 – 32.0 feet (0.010")						
DRILLER: Cascade Drilling, Inc.						SAND PACK: 20.0 – 34.0 (2x12)						
WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.11
	▽	▼									SURVEY DATE:	10/13/10
											DTW:	27.12 on 9/2/10
	DESCRIPTION/LOGGED BY: Megan MacDonald											
Sand 	▽		MST	0.7	50/6"	23			ML		Gravelly Silty <u>SAND</u> : 70% fine sand; 15% silt; 15% small rounded gravel.	
						24						
						25			SM			
						26						
			WET	1.8	50/5"	27						
						28						
			WET	1.1	50/6"	29			SM			
						30						
			WET	0.8	50/6'	31						
			MST	5.3	50/2"	32			SM			
						33						
			MST	0.5	50/2'	34			ML			
						35						
						36						
						37						
			38									
			39									
			40									
			41									
			42									
			43									
			44									

WELL/BORING LOCATION MAP						Delta Consultants					WELL/BORING: MW-12				
						INSTALLATION DATE: 6/17/2010					DRILLING METHOD: Hollow Stem Auger				
						PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
						CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
						LOCATION: 19924 International Blvd.					BORING DEPTH: 32.0 feet				
						CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
						STATE: WA					WELL SCREEN: 22.0 – 32.0 feet (0.010")				
						DRILLER: Cascade Drilling, Inc.					SAND PACK: 20.0 – 32.0 (2x12)				
WELL/BORING COMPLETION		FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	97.76		
		▽	▼									SURVEY DATE:	10/13/10		
												DTW:	26.40 on 9/2/10		
												DESCRIPTION/LOGGED BY: Megan MacDonald			
Concrete												Original Surface = asphalt Air-knifed to 5.0 feet bgs.			
Grout							1								
							2								
							3								
							4								
							5								
				MST	0.3	50/5"	6			ML		Gravelly Sandy <u>SILT</u> : brown; 40% silt; 30% fine to medium sand; 30% small rounded-angular gravel; no staining; some slough on top; no odor.			
							7								
							8								
							9								
				MST	0.1	39 50/4"	10			ML		Same as Above: some slough on top.			
							11								
							12								
							13								
							14								
				MST	0.3	50/5"	15			ML		Same as Above.			
							16								
							17								
							18								
							19								
Bentonite							20			ML		Same as Above: (cobble in shoe).			
Sand			MST	-	50/5"	21									
						22									

WELL/BORING LOCATION MAP						Delta Consultants				WELL/BORING: MW-12			
						INSTALLATION DATE: 6/17/2010				DRILLING METHOD: Hollow Stem Auger			
						PROJECT: I42611255				SAMPLING METHOD: DM Split Spoon			
						CLIENT: COP-ELT				BORING DIAMETER: 8.25 inches			
						LOCATION: 19924 International Blvd.				BORING DEPTH: 32.0 feet			
						CITY: SeaTac				WELL CASING: SCH 40 PVC 2"			
						STATE: WA				WELL SCREEN: 22.0 – 32.0 feet (0.010")			
						DRILLER: Cascade Drilling, Inc.				SAND PACK: 20.0 – 32.0 (2x12)			
WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	97.76	
	▽	▼									SURVEY DATE:	10/13/10	
											DTW:	26.40 on 9/2/10	
											DESCRIPTION/LOGGED BY: Megan MacDonald		
			MST	0.1	50/6"	23			ML		Silty <u>SAND</u>: brown; 85% fine to medium sand; 15% silt; no staining; no odor. Silty <u>SAND</u>: brown; 85% fine to coarse sand; 15% silt; no staining; no odor. No sample – only small to large angular gravel. *Driller indicated we were back in hard material at ~32 feet bgs. Instructed him to stop and set well at 32 feet with 10 feet of screen.		
						24							
						25			SM				
						26							
						27							
						28							
						29							
						30			SM				
						31							
						32							
						33							
						34							
						35							
						36							
						37							
						38							
						39							
						40							
						41							
						42							
						43							
						44							

WELL/BORING LOCATION MAP						Delta Consultants					WELL/BORING: MW-13				
						INSTALLATION DATE: 6/17/2010					DRILLING METHOD: Hollow Stem Auger				
						PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
						CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
						LOCATION: 19924 International Blvd.					BORING DEPTH: 32.0 feet				
						CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
						STATE: WA					WELL SCREEN: 22.0 – 32.0 feet (0.010")				
						DRILLER: Cascade Drilling, Inc.					SAND PACK: 20.0 – 32.0 (2x12)				
WELL/BORING COMPLETION		FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	97.33		
		▽	▼									SURVEY DATE:	10/13/10		
												DTW:	26.68 on 9/2/10		
												DESCRIPTION/LOGGED BY: Megan MacDonald			
Concrete												Original Surface = asphalt Air-knifed to 5.0 feet bgs. 			

WELL/BORING LOCATION MAP					Delta Consultants					WELL/BORING: MW-13				
					INSTALLATION DATE: 6/17/2010					DRILLING METHOD: Hollow Stem Auger				
					PROJECT: I42611255					SAMPLING METHOD: DM Split Spoon				
					CLIENT: COP-ELT					BORING DIAMETER: 8.25 inches				
					LOCATION: 19924 International Blvd.					BORING DEPTH: 32.0 feet				
					CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
					STATE: WA					WELL SCREEN: 22.0 – 32.0 feet (0.010")				
					DRILLER: Cascade Drilling, Inc.					SAND PACK: 20.0 – 32.0 (2x12)				
WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	97.33			
	▽	▼								SURVEY DATE:	10/13/10			
										DTW:	26.68 on 9/2/10			
	DESCRIPTION/LOGGED BY: Megan MacDonald													
Sand Bentonite	▽		MST	0	50/5"	23		ML		Gravelly Sandy <u>SILT</u> : brown; 50% silt; 30% sand; 20% small rounded gravel; no staining; no odor.				
			24											
			25											
			26											
			27											
			28											
			29											
			30		SM		Silty <u>SAND</u> : 85% fine to medium grained sand; 15% silt; no staining; no odor.							
			31											
			32											
			33											
			34											
			35		ML		Gravelly Sandy <u>SILT</u> : grayish brown; 40% silt; 30% sand; 30% small angular gravel; no staining; no odor.							
			36											
			37											
			38											
			39											
			40											
			41											
			42											
			43											
			44											
*Driller indicated that soil got very stiff at ~32 feet bgs. 35 feet sample moist, but not wet. Instructed driller to chip hole back up to 32 feet, set well there with 10 feet of screen.														

WELL/BORING LOCATION MAP			Antea Group					WELL/BORING: MW-14				
			INSTALLATION DATE: 6/26/2011					DRILLING METHOD: HSA				
			PROJECT: 2611255					SAMPLING METHOD: Split Spoon				
			CLIENT: ELT					BORING DIAMETER: 8.25 inches				
			LOCATION: 19924 International Blvd.					BORING DEPTH: 35.0 feet				
			CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
			STATE: WA					WELL SCREEN: 20 – 35 feet (0.010")				
			DRILLER: Cascade Drilling, Inc.					SAND PACK: 18 - 35 feet (2X12)				
WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (feet)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	99.20
											SURVEY DATE:	8/16/11
											DTW:	28.31 on 8/16/11
DESCRIPTION/LOGGED BY: Dan Rowlands												
Concrete						2					Original Surface = Asphalt	
Bentonite			DRY	2.2	21 25 30	4 6			SM		Silty <u>SAND</u> with Gravel: brown; ~70% fine sand; ~20% silt; some gravel; no odor.	
			DRY	2.3	22 30 30	10 12			SM		Silty <u>SAND</u> with Gravel: brown; ~60% fine sand; ~30% silt; some rounded gravel no odor.	
			DRY	1.8	42 50/6"	14 16			SP		Gravelly <u>SAND</u> : brown; ~70% medium to coarse and; ~30% rounded gravel; no odor.	
			MST	2.4	45 50/6"	18 20			ML		Gravelly <u>SILT</u> with Sand: brown; ~60% silt; ~30% rounded gravel; some fine sand; no odor.	
Sand	▽	▼	MST	25.2	43 50/6"	22 24 26			SP		Gravelly <u>SAND</u> : brown; ~60% well graded sand; ~40% rounded gravel; no odor.	
			WET	19.5	50/6"	28 30 32			SP		<u>SAND</u> : gray; 100% medium sand; slight odor.	
			WET	19.2	50/6"	34 36			SP		Driller notes much harder material at ~33 feet. Gravelly <u>SAND</u> : brown; ~70% medium to coarse sand; ~30% rounded to subangular gravel; slight odor.	
						38						
						40						
						42						
						44						

WELL/BORING LOCATION MAP					Antea Group					WELL/BORING: MW-15		
					INSTALLATION DATE: 6/26/2011			DRILLING METHOD: HSA				
					PROJECT: 2611255			SAMPLING METHOD: Split Spoon				
					CLIENT: ELT			BORING DIAMETER: 8.25 inches				
					LOCATION: 19924 International Blvd.			BORING DEPTH: 35.0 feet				
					CITY: SeaTac			WELL CASING: SCH 40 PVC 2"				
					STATE: WA			WELL SCREEN: 17 – 32 feet (0.010")				
					DRILLER: Cascade Drilling, Inc.			SAND PACK: 15 - 35 feet (2X12)				
WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (feet)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.49
											SURVEY DATE:	8/16/11
											DTW:	26.70 on 8/16/11
DESCRIPTION/LOGGED BY: Dan Rowlands												
Concrete						2					Original Surface = Asphalt	
			DRY	0.0	11 25 35	4			SM			
Bentonite						6					Silty <u>SAND</u> with Gravel: brown; ~70% fine sand; ~20% silt; some rounded gravel; no odor.	
			DRY	3.3	25 35 36	8			SM		Silty <u>SAND</u> with Gravel: brown; ~60% fine sand; ~30% silt; some rounded gravel no odor.	
						10						
			DRY	4.0	38 50/6"	12			SM		Same as above.	
						14						
			MST	0.0	35 50/6"	16			SM		Silty <u>SAND</u> with Gravel: brown; ~50% sand; ~35% silt; 15% rounded to subrounded gravel; no odor.	
						18						
						20						
			MST	3.4	37 50/6"	22			SP ML		Gravelly <u>SAND</u> : brown; ~80% medium sand; ~20% rounded to subrounded gravel; no odor.	
						24					Sandy <u>SILT</u> with Gravel: brown; ~70% silt; ~20% fine sand with some gravel; no odor.	
						26						
			WET	192	38 50/6"	28			SP		<u>SAND</u> : gray; 100% medium sand; no odor.	
						30					Driller notes much harder material at ~33 feet.	
			WET	25.0	50/6"	32			SP		Gravelly <u>SAND</u> : brown; ~60% medium to coarse sand; ~40% rounded gravel; no odor.	
						34						
						36						
						38						
						40						
						42						
						44						

WELL/BORING LOCATION MAP			Antea Group					WELL/BORING: MW-16				
			INSTALLATION DATE: 7/5/2011					DRILLING METHOD: SONIC				
			PROJECT: 2611255					SAMPLING METHOD: Stainless Steel Core				
			CLIENT: ELT					BORING DIAMETER: 6.0 inches				
			LOCATION: 19924 International Blvd.					BORING DEPTH: 35.0 feet				
			CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
			STATE: WA					WELL SCREEN: 18 – 33 feet (0.020")				
			DRILLER: Cascade Drilling, Inc.					SAND PACK: 16 - 35 feet (2X12)				
WELL/BORING COMPLETION	FIRST ▼	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (feet)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	98.35
											SURVEY DATE:	8/16/11
											DTW:	27.82 on 9/19/11
											DESCRIPTION/LOGGED BY: Mackie Manivong	
Concrete						2					Original Surface = Asphalt	
Bentonite			MST	0.0	NA	4						
			MST	0.0	NA	6			SP		SAND: gray; poorly-graded fine sand; ~10-15% fine gravel; no iron staining; no odor.	
						8						
			MST	4.0	NA	10						
						12			ML		SILT: gray; ~10% gravel; no odor.	
						14			SP		SAND: gray; poorly-graded fine sand; ~10-15% fine gravel; no iron staining; no odor.	
						16						
			MST	0.0	NA	18			SP		~15-20% fine to coarse gravel at 19.0 to 20.0 feet; no odor.	
						20			SM		Silty SAND: gray; poorly-graded fine sand; ~20% silt; ~10-15% fine to coarse gravel; no odor.	
			MST	-	NA	22					Silty SAND: gray; poorly-graded fine sand; ~20% silt; ~10-15% fine to coarse gravel; odor at 22.5-25.0 feet.	
			WET	6.0	NA	24						
			WET	5.0	NA	26						
						28			SP		SAND: gray; poorly-graded medium sand; trace gravel at 27.5 feet; odor.	
						30						
			MST	-	NA	32						
						34			SM		Silty SAND: gray; poorly-graded fine sand; ~20% silt; ~10-15% fine to coarse gravel; odor.	
						36						
						38						
						40						
						42						
						44						

WELL/BORING LOCATION MAP					Antea Group					WELL/BORING: MW-17		
INSTALLATION DATE: 7/7/2011					DRILLING METHOD: SONIC							
PROJECT: 2611255					SAMPLING METHOD: Stainless Steel Core							
CLIENT: ELT					BORING DIAMETER: 6.0 inches							
LOCATION: 19924 International Blvd.					BORING DEPTH: 35.0 feet							
CITY: SeaTac					WELL CASING: SCH 40 PVC 2"							
STATE: WA					WELL SCREEN: 20 – 35 feet (0.020")							
DRILLER: Cascade Drilling, Inc.					SAND PACK: 18 - 35 feet (2X12)							

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (feet)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	99.39
											SURVEY DATE:	8/16/11
											DTW:	28.47 on 9/19/11
											DESCRIPTION/LOGGED BY: Mackie Manivong	

Concrete												Original Surface = Asphalt
						2						
						4						
			WET	-	-	6						
Bentonite			MST	0.0	NA	8			SM			Silty GRAVEL: brown; wet.
						10						
			MST	0.0	-	12			SP			Gravelly Silty SAND: brown; asphalt debris; wet; 65% fine to medium sand; 20% silt; 15% gravel; no odor.
						14						SAND: brown; poorly-graded fine sand; 15-20% fine to coarse gravel; trace silt; no odor.
			MST	0.0	-	16			SM			Silty SAND: gray and brown; 70% sand; 30% silt; trace gravel; trace iron staining; no odor.
			DRY	0.0	-	18			ML			Gravelly SILT: gray; 85% silt; 15% fine to medium subrounded gravel; no staining; no odor.
						20						
			MST	-	-	22			SP			SAND: gray; poorly-graded fine sand; silt lenses throughout; trace gravel; no staining, no odor.
						24						
			WET	0	NA	26			SP			SAND: gray; poorly-graded medium sand; becomes coarse sand at 28.0 feet; no iron staining, no odor.
				13.1*	-	28						
				0-1.9*	-	30			SM			Silty SAND: gray; mostly fine sand; 30-40% silt; 101-15% fine to coarse gravel; some iron staining, no odor.
				0-2.1*	-	32						
				0-4.9*	-	34			GM			Silty GRAVEL: gray; fine to coarse subangular gravel; 30-35% silt; 15% coarse sand; some iron staining, no odor.
				0*	-	36						
						38						
						40						
						42						
						44						
												* 13.1 when PID is placed in core bag. 0 when put in separate baggie and PID'd.

WELL/BORING LOCATION MAP			Antea Group					WELL/BORING: AS-1				
			INSTALLATION DATE: 7/6/2011					DRILLING METHOD: SONIC				
			PROJECT: 2611255					SAMPLING METHOD: Stainless Steel Core				
			CLIENT: ELT					BORING DIAMETER: 6.0 inches				
			LOCATION: 19924 International Blvd.					BORING DEPTH: 35.0 feet				
			CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
			STATE: WA					WELL SCREEN: 29 - 31 feet (0.020")				
			DRILLER: Cascade Drilling, Inc.					SAND PACK: 28 - 35 feet (2X12)				
WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (feet)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	-
											SURVEY DATE:	-
											DTW:	-
DESCRIPTION/LOGGED BY: Mackie Manivong												
Concrete						2					Original Surface = Asphalt	
						4						
						6			SM		Silty SAND: brown; 15-20% silt; ~10-15% fine to coarse gravel; no iron staining; no odor.	
						8			ML		SILT: brown; gray; trace sand and fine gravel; some iron staining; no odor.	
			MST	4.6	NA	10			SM		Silty SAND: gray; ~15-20% silt; ~10-15% fine to coarse gravel; trace iron staining; no odor.	
						12						
						14			SP		SAND: gray; poorly-graded medium sand; 15-20% fine to coarse gravel; no iron staining; no odor.	
			MST	0.0	NA	16			ML		SILT: gray and brown; 5-10% mostly fine gravel; trace sand; no iron staining; no odor.	
						18					Slough from 17-18.5 feet.	
						20						
						22						
			MST	-	-	24			SM		Silty SAND: gray; 30-40% silt; ~10% fine to coarse gravel; no iron staining; no odor.	
						26			ML		SILT: gray; ~10% fine gravel; trace sand; no iron staining; odor.	
						28			SP		SAND: gray; poorly-graded medium sand; trace gravel; no iron staining; odor.	
						30			SM		Silty SAND: gray; mostly fine sand; 20-30% silt; 10-15% gravel.	
			MST	-	-	32			ML		SILT: gray; 20-25% fine to coarse gravel; no odor.	
			DRY	-	-	34						
			WET	-	-	36						
						38			SM		Silty SAND: gray; moist; fine sand; 20-25% silt; 10-15% fine to coarse gravel; no iron staining; odor at 33-34 feet.	
						40						
						42						
						44						

WELL/BORING LOCATION MAP						Antea Group					WELL/BORING: AS-2				
						INSTALLATION DATE: 7/6/2011					DRILLING METHOD: SONIC				
						PROJECT: 2611255					SAMPLING METHOD: Stainless Steel Core				
						CLIENT: ELT					BORING DIAMETER: 6.0 inches				
						LOCATION: 19924 International Blvd.					BORING DEPTH: 40.0 feet				
						CITY: SeaTac					WELL CASING: SCH 40 PVC 2"				
						STATE: WA					WELL SCREEN: 32 - 34 feet (0.020")				
						DRILLER: Cascade Drilling, Inc.					SAND PACK: 30 - 40 feet (2X12)				
WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (feet)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	-			
											SURVEY DATE:	-			
											DTW:	-			
DESCRIPTION/LOGGED BY: Mackie Manivong															
Concrete						2					Original Surface = Asphalt				
						4									
			MST	-	-	6			SP		<u>SAND</u> : gray; poorly-graded medium sand; fine to coarse subangular gravel; no iron staining; no odor.				
						8					Poorly-graded fine sand from 8.0-15.0 feet; trace silt from 12.5-15.0 feet.				
						10									
						12									
						14									
						16									
						18					No core sample from 15.0-20.0 feet.				
			MST	-	-	20			ML		<u>SILT</u> : gray and brown; 10-15% fine to coarse subangular gravel; trace sand; no iron staining; no odor.				
						22									
			MST	-	-	24			SP		<u>SAND</u> : gray and brown; poorly-graded fine sand; 10-15% fine to coarse subrounded gravel; trace iron staining; no odor.				
						26									
						28									
			MST	-	-	30			SP		<u>SAND</u> : gray and brown; poorly-graded medium sand; trace coarse gravel; no iron staining; no odor.				
			MST	-	-	32			ML		<u>SILT</u> : gray; 20-25% fine to coarse gravel; trace iron staining; no odor.				
						34									
			DRY	-	-	36			GM		Silty <u>GRAVEL</u> : gray; mostly coarse subrounded gravel; 35-45% silt; trace sand; some iron staining; no odor.				
						38									
						40									
						42									
						44									
Native material Boring collapsed															

Appendix B

Field Data Sheets

Delta Consultants
Daily Field Log

Project Name: 2611255

Project No.: I42611255

Date: 6-18-10

Location: SeaTac, WA

Delta Field Representative: MM + TB

Delta Project Manager: BT

Client: ELT

Contact: _____

Contractor Cascade

Contact _____

Other _____

Contact _____

Other _____

Contact _____

Time Record: Install 5 MWs.

Weather: Cloudy ~ 58°

Notes:

- 630 Δ personnel mob to site.
- 700 Δ personnel on site. APS personnel already on site. H+S tailgate conducted. APS personnel traced on-site sewer + storm. Had to adjust a couple borings accordingly. APS personnel off site @ 9:00.
- 800 Cascade personnel on site. H+S tailgate meeting conducted. Begin air-knifing MW-13. Soil very stiff-tough air-knifing.
- 930 Begin drilling MW-13. Sand lens (water bearing) ~ 25-32' bgs. Drilled to 35'. Chipped back up to 32 + set well w/ 10' screen.
- 11:30 Begin drilling MW-12. Same sand lens. Well set same as MW-13.
- 12:00 Air-knife crew found large rock 1' bgs in MW-9 - had to step out a lil bit.
- 12:30 Lunch - Eric Larsen on site for audit.
- 13:00 Begin drilling MW-11. Continuous sampling from 25-35. Sand lens from 25-32. Sand lens starts somewhere b/w 20-25. Will do continuous sampling from 20-25 on MW-10.
- 14:30 Air-knife crew air-knifed all 5 locations to 5' bgs. No utilities encountered
- 16:00 All personnel off site.

Signature: _____

Date: _____

16:30 - Samples dropped off to lab.

Continued ...

Yes

No

Delta Consultants
Daily Field Log

Project Name: ELT-2411255

Project No.: J42411255

Date: 6-18-10

Location: Scotia, WA

Delta Field Representative: MM + TB

Delta Project Manager: BT

Client: ELT

Contact: _____

Contractor Cascade

Contact _____

Other _____

Contact _____

Other _____

Contact _____

Time Record: Install MW-9 + MW-10

Weather: Partly Cloudy - 60°

Notes:

- 7:00 Mob to site.
- 7:30 15 personnel MM + TB on site. HASP, APW, + TSAs reviewed + signed.
- 8:00 MW-10 shows impacts @ 10'. Did continuous sampling between 20-25' to track down start of water-bearing sand lens.
MW-10 drilled to a depth of 36.5'. No soil recovery in bottom sample.
Wet set @ 35' w/ 15' of 0.010" screen.
- 11:00 MW-9 drilled to a depth of 36'. Wet set @ 35' w/ 15' of 0.010" screen.
- 13:00 Begin ~~drilling~~ developing all wells (MW-9 → MW-13).
MW-13 only well that had significant recharge. Other wells continually went dry after a couple gallons.
- Samples dropped off @ lab by TB.
- 15:00 All personnel off site.

Signature: MM

Date: 6-18-10

Continued...

Yes

No

Bryan Taylor

From: Bryan Taylor
Sent: Wednesday, June 16, 2010 3:43 PM
To: Megan MacDonald
Cc: Eric Larsen
Subject: 2611255 - Assessment Plan
Attachments: 2611255 MW-6 to MW-8 & MW-4 boring logs.pdf; 2611255 Utility Map.pdf; 2611255 Proposed Soil Borings.pdf

Megan,

Schedule:

- I will meet you at the site at 700 to review the boring locations and conduct a site walk.
- APS is scheduled to be onsite at 730 to locate the sanitary sewer pipes coming from the station buildings.
- Cascade is scheduled to arrive at 800.
- I will be in Castle Rock on Thursday but available via cell. I'm planning on being onsite on Friday.

Scope:

- Conduct sanitary sewer locate with APS
- Clear five borings to 5 ft bgs with air knife
- Install five two-inch monitoring wells (MW-9 – MW-13) to an estimated depth of 37 feet bgs (see attached site map). Estimated screened interval from 22–37 feet bgs
- Develop wells

DTW:

- MW-4 – 28 to 29 feet bgs in 1992 prior to well being over drilled to 45 feet bgs (observed GW depth @ time of drilling = 26 ft bgs)
- **MW-6 – 28 to 32 feet bgs (observed GW depth @ time of drilling = 28 ft bgs)**
- **MW-7 – 28 to 32 feet bgs (observed GW depth @ time of drilling = 28 ft bgs)**
- MW-8 – 41 to 50 feet bgs, well drilled to 48 feet bgs (no water observed during drilling)
- As Larsen indicated, DTW in MW-4 and MW-8 are not likely indicative of actual groundwater depths.

Soils:

- Vashon Glacial Till to 50 ft bgs
 - Dense to very dense, silty, fine to medium SAND with gravel

Sample Plan:

- Collect soil samples every five feet starting at 20 feet in each boring, i.e., 20, 25, 30 and 35 feet bgs.
- In soil borings MW9 – MW11, attempt to collect continuous samples between 25 and 35 feet bgs.
- Submit all samples for analysis.

Analytical:

- BTEX by 8260
- TPHg by NWTPH-Gx
- Lead by 6010
- After further discussion with Larsen, TPH-D was eliminated from the scope.
- Collect additional soil in bags for sieve analysis

Site Notes:

- There is approximately 10 feet between the canopy footprint and the soil borings south of MW6 and MW8.

6/16/2010

The drill rig will need to be parked parallel to the station canopy.

- A former SVE line runs from the former compound to MW-4, the trench is obvious once onsite.
- I would recommend closing the south side of the southern dispenser island and the entire entrance. I indicated to the station owner we would likely close one-half of a dispenser island.
- APS was onsite last week and indicated that there appears to be abandoned electrical conduit that used to supply power to the light poles. For whatever reason, new conduit appears to have been installed to each pole. APS has located the live conduit.
- A catch basin exists south of MW-6 and I cannot tell where the pipes enter or exit. Let's have APS pull the grate and attempt to locate the pipes.

Call me if you have any questions. Thanks

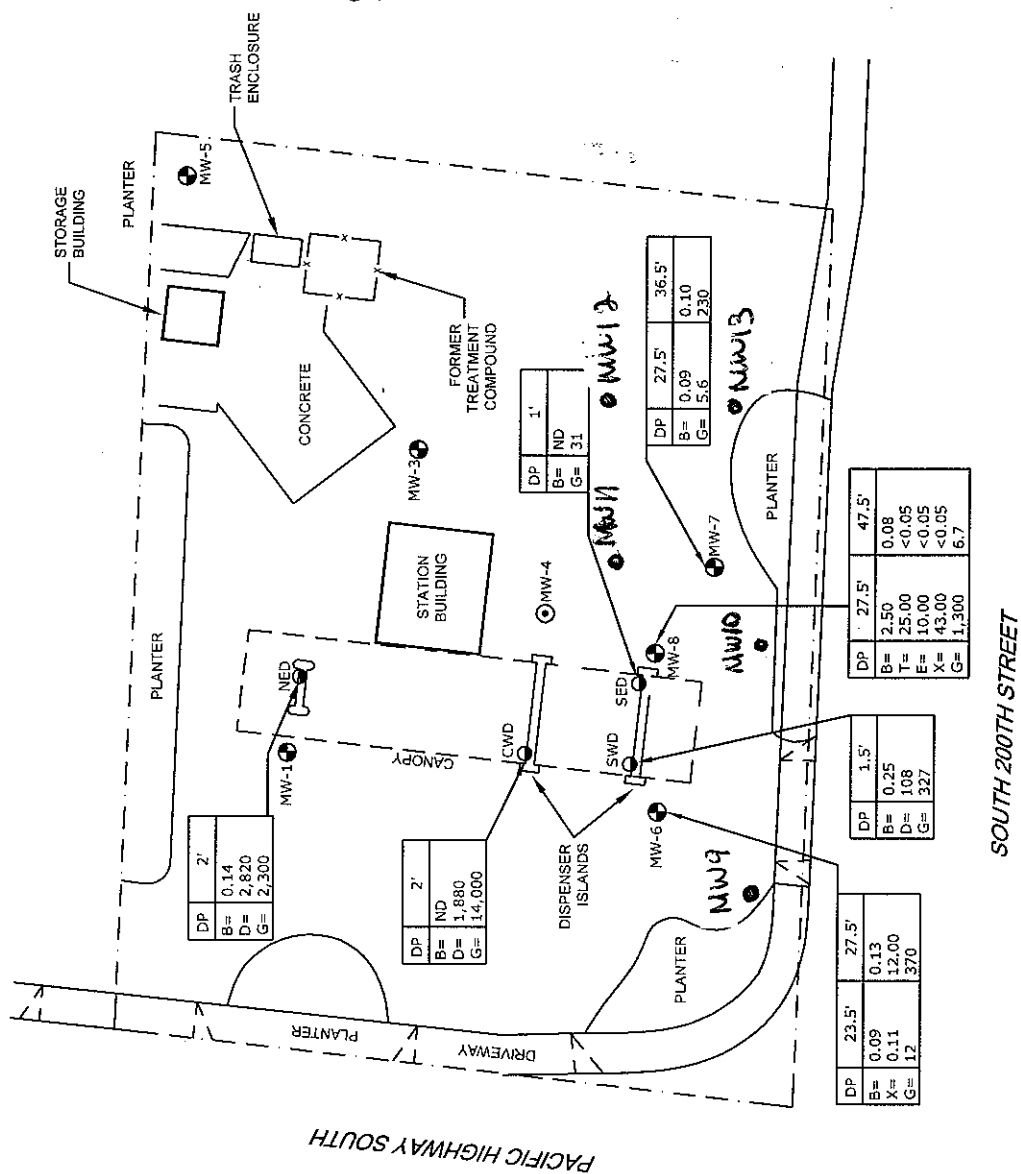
Bryan Taylor | Project Manager | North American Operations - Seattle WA
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btaylor@deltaenv.com | www.deltaenv.com

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6/16/2010



Proposed Parking Locations



Figure 2

SOIL ANALYTICAL DATA RESULTS MAP

Facility NO 2611255
19964 PACIFIC HIGHWAY SOUTH
SEATAC, WASHINGTON

Project No. 142611255	Prepared by DR	Drawn by LNH
Date 5/21/10	Reviewed by BT	Filename 2611255

DELTA

REMEDATION MANAGEMENT - AUTHORIZATION TO WORK

PRE-TASK HAZARD REVIEW											
TASK						EQUIPMENT					
1. Private Locates						1. Sounding					
2. Drilling / Well Installation						2. Drill Rig					
3. Air-Charge						3. Vac Truck					
4.						4.					
5.						5.					
6.						6.					
Chemical / Products / Material											
1. ☐ Hydrogen Sulfide		2. ☒ Benzene		3. ☒ Diesel		4. ☒ Hydrocarbon		5. ☐ Acid		6. ☒ Lead	
7. ☐ Carbon Monoxide		8. ☐ Asbestos		9. ☐ Caustic		10. ☒ Gasoline		11. ☐ Heavy Metals			
12. ☐ NORMS		13. ☐ Other:									
Hazardous Energy											
19. ☒ Radiation			20. ☒ Electric			21. ☒ Pneumatic			22. ☐ Thermal-Steam		
23. ☒ Hydraulic			24. ☒ Pressure			25. ☒ Mechanical			26. ☒ Fluids & Gases		
27. ☒ Gravitational						28. ☐ Other:					
Other Potential Hazards											
34. ☒ Walking / Working Surfaces			35. ☒ Traffic			36. ☐ Working at Heights			37. ☒ Pinch Points		
38. ☒ Weather			39. ☒ Noise			40. ☐ Grinding			41. ☒ Heavy Equipment		
43. ☐ Hot Work			44. ☐ Security			45. ☐ Congested Area			42. ☒ Sharp Edges		
47. ☒ Body Position			48. ☐ Static Posture			49. ☐ Wind			46. ☐ Overhead Work		
52. ☒ Housekeeping			53. ☐ Spills			50. ☐ Rotating Equipment			51. ☒ Lifting		
56. ☒ Confined Space			57. ☐ Vibration			54. ☒ Underground Utility			55. ☒ Slopes and Terrain		
60. ☒ Vehicle Safety - Driving			58. ☒ Ground Disturbance			61. ☒ Repetitive Motion			59. ☒ Rigging		
63. ☐ Waste			64. ☐ Heat/Cold Stress			65. ☒ Hand & Power Tools			62. ☐ Container/Drum Labels		
67. ☐ Open Pipe			68. ☐ Boom Swing			69. ☐ Lighting			66. ☐ Fitness to Work		
71. ☒ Overhead Electrical			72. ☒ Auger/Drill Stem			70. ☒ Exposure to poisonous plants / animals / bugs			73. ☐ Other:		
Required Safety Precautions											
79. ☒ Safety Glasses			80. ☐ Goggles			81. ☒ Face Shield			82. ☒ Ear Plugs		
84. ☒ Hard Hat			85. ☐ Escape Pak			86. ☒ Safety Toe Shoes			87. ☐ Ear Muffs		
89. ☐ FRC			90. ☐ Supplied Air			91. ☐ Topical Creams / Repellants			83. ☒ Reflective Vest		
93. ☐ Fire Watch			94. ☐ Drip Pans			95. ☐ Plastic Sheeting			88. ☐ Respirator		
98. ☒ Barricade			99. ☐ Fire Blanket			100. ☐ Upwind Areas Checked			92. ☒ Gloves: work/white		
102. ☐ Flag Off Area			103. ☐ Life Lines			104. ☒ Fire Extinguisher at Jobsite			97. ☐ Fall Protection		
106. ☐ Seal Manholes, Sewers, and Catch Basins						107. ☐ Communication Method			101. ☐ Warning Signs		
109. ☐ Continuous Monitoring						110. ☐ Wed Down Area			105. ☐ Sampling Prohibited		
112. ☐ Tag Lines									108. ☐ Welding Shields		
114. ☐ Fence Off Area									111. ☐ Ladder Tie Off		
						113. ☐ Active Site Hazard Communication					
						115. ☐ Other:					
REQUIRED PROCEDURES											
☒ Drilling		☐ MOC		☐ Traffic Control		☐ LO/TO/Blinding		☐ Hoist/Lifting		☐ Journey Hazard Assessment	
REQUIRED PERMITS											
☐ Hot Work		☒ Ground Disturbance		☐ Confined Space		☐ Working from Heights		☐ None			
SIGNATURES											
Contractor(s) / Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job site to my supervisor and / or BP representative so they can be corrected as necessary.						1. JK					
						2. CL					
						3. TB					
						4. mm					
						7. LG					
						8. ☒					
						11. TW					
						12. ☒					
Onsite Project Manager: Megan Macdonald						Date: 6-17-10					
Site: 2611255						Location of Site Work:					
☒ Is HASP onsite:						Date/Time Issued: 6-17-10 730 am/pm					
☐ Is ERP onsite?						Date/Time Expires: 6-17-10 1830 am/pm					
Authorization Name (Printed): Megan Macdonald						Authorization Signature: ☒ Is JSA onsite?					

**FOR USE BY DELTA, DELTA-HULL, OR INOGEN
REMEDATION MANAGEMENT – AUTHORIZATION TO WORK**

PRE-TASK HAZARD REVIEW					
TASK			EQUIPMENT		
1. <u>Drilling / Well Installation</u>			1. <u>Drill Rig</u>		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
Chemical / Products / Material					
1. ☐ Hydrogen Sulfide	2. ☒ Benzene	3. ☒ Diesel	4. ☒ Hydrocarbon	5. ☐ Acid	6. ☐ Lead
7. ☐ Carbon Monoxide	8. ☐ Asbestos	9. ☐ Caustic	10. ☒ Gasoline	11. ☐ Heavy Metals	
12. ☐ NORMS	13. ☐ Other: _____				
Hazardous Energy					
19. ☐ Radiation	20. ☒ Electric	21. ☒ Pneumatic	22. ☐ Thermal-Steam		
23. ☒ Hydraulic	24. ☒ Pressure	25. ☒ Mechanical	26. ☒ Fluids & Gases		
27. ☒ Gravitational	28. ☐ Other: _____				
Other Potential Hazards					
34. ☒ Walking / Working Surfaces	35. ☒ Traffic	36. ☐ Working at Heights	37. ☒ Pinch Points		
38. ☒ Weather	39. ☒ Noise	40. ☐ Grinding	41. ☒ Heavy Equipment		
43. ☐ Hot Work	44. ☐ Security	45. ☐ Congested Area	46. ☐ Overhead Work		
47. ☒ Body Position	48. ☐ Static Posture	49. ☐ Wind	50. ☐ Rotating Equipment		
52. ☒ Housekeeping	53. ☐ Spills	54. ☒ Underground Utility	51. ☒ Lifting		
56. ☐ Confined Space	57. ☐ Vibration	58. ☒ Ground Disturbance	55. ☐ Slopes and Terrain		
60. ☒ Vehicle Safety – Driving	61. ☒ Repetitive Motion	62. ☒ Hand & Power Tools	59. ☐ Rigging		
63. ☐ Waste	64. ☐ Heat/Cold Stress	65. ☐ Lighting	62. ☒ Container/Drum Labels		
67. ☐ Open Pipe	68. ☐ Boom Swing	69. ☒ Auger/Drill Stem	66. ☐ Fitness to Work		
71. ☒ Overhead Electrical	70. ☒ Exposure to poisonous plants / animals / bugs		73. ☐ Other: _____		
Required Safety Precautions					
79. ☒ Safety Glasses	80. ☐ Goggles	81. ☐ Face Shield	82. ☒ Ear Plugs	83. ☒ Reflective Vest	
84. ☒ Hard Hat	85. ☐ Escape Pak	86. ☒ Safety Toe Shoes	87. ☐ Ear Muffs	88. ☐ Respirator	
89. ☐ FRC	90. ☐ Supplied Air	91. ☐ Topical Creams / Repellants	92. ☒ Gloves: <u>Nitrile</u>		
93. ☐ Fire Watch	94. ☐ Drip Pans	95. ☐ Plastic Sheetting	96. ☐ Vac Truck		
98. ☐ Barricade	99. ☐ Fire Blanket	100. ☐ Upwind Areas Checked	97. ☐ Fall Protection		
102. ☐ Flag Off Area	103. ☐ Life Lines	104. ☒ Fire Extinguisher at Jobsite	101. ☐ Warning Signs		
106. ☐ Seal Manholes, Sewers, and Catch Basins		107. ☐ Communication Method	105. ☐ Sampling Prohibited		
109. ☐ Continuous Monitoring		110. ☐ Wed Down Area	108. ☐ Welding Shields		
112. ☐ Tag Lines			111. ☐ Ladder Tie Off		
114. ☐ Fence Off Area			113. ☐ Active Site Hazard Communication		
			115. ☐ Other: _____		
REQUIRED PROCEDURES					
☒ Drilling	☐ MOC	☐ Traffic Control	☐ LO/TO/Blinding	☐ Hoist/Lifting	☐ Journey Hazard Assessment
REQUIRED PERMITS					
☐ Hot Work	☒ Ground Disturbance	☐ Confined Space	☐ Working from Heights	☐ None	
SIGNATURES					
Contractor(s) / Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job site to my supervisor and / or BP representative so they can be corrected as necessary.					
5. _____			6. _____		
9. _____			10. _____		
Onsite Project Manager: <u>Megan MacDonald</u>			Date: <u>6-18-10</u>		
Site: <u>2611285</u>			Location of Site Work: <u>scatoc</u>		
Date/Time Issued: <u>6-18-10 730</u> am/pm			Date/Time Expires: <u>6-18-10 1820</u> am/pm		
☒ Is HASP onsite:			☐ Is ERP onsite?		
Authorization Name (Printed): <u>Megan MacDonald</u>			Authorization Signature: <u>[Signature]</u>		



PRE and SITE INTRUSIVE WORK CHECKLIST

This form should be used when intrusive work is to be conducted at a site.

It is intended to be a Pro-Active Guide and may also be used as an audit form when signed.

The items below should be used as a guide and not be considered "base" requirements or an "all inclusive" review.

The following checklist contains information with respect to HSE procedures for site intrusive work such as drilling, direct push, trenching and excavating. The documents: Delta Site Health and Safety Plan; Delta Health and Safety field Checklists; Delta SOPs; shall be followed at all times. See Page 2 of 2 (Definitions tab) for further detail. Should there be conflicting practices between documents the more restrictive shall apply until clarification is made and documented. The following list outlines general procedures prior to the initiation of site intrusive work:

Project Name#: ELT-2611255
 Project Manager: Bryan Taylor
 Date: 6-7-10

Auditor Signature: _____
 Field Person: Megan MacDonald
 Reviewed by: _____

Check applicable boxes for observed acceptable procedures and equipment use. All deficiencies must be corrected. Please document corrective action taken in the Comments Section.

Project Emergency Contacts:

Primary Contact Phone: () 425-240-9321

Secondary Contact Phone: () _____

EVALUATION CRITERIA

Pre-Field Review Work

- Obtain blueprints/as-builts from client or property owner.
- Review on/offsite utilities (underground, at grade, overhead).
- Secure access agreements/permits (offsite, ROW).
- Contact the Public Utility Locator and request markouts of the entire site (some states require work locations marked).
- Confirmation #, date/time is recorded in the SHSP.

DATE NA

COMMENTS

6-9-10 []

Not available

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

6-9-10 []

- Contact station manager/property owner and inform of investigation and ask about above/below ground utility locates or work -new and old.
- *Private markout service is contacted - Discuss with the Client
- Plan Stockpile/drum storage area.
- Shoring design reviewed & "competent person" identified.

At Site, Prior to Start of Field Work

Examine the site to locate all proposed subsurface work.

6-9-10 []

Photograph excavation locations with attention to utility markings (overhead issues).

6-9-10 []

Define specific on-site exclusion zones.

6-9-10 []

Locate actual utility meters (i.e. electric, gas, water), phones, lights, water/sewage sources with respect to where the work will occur.

6-9-10 []

Field Revise a to-scale site plan showing all overhead, subsurface structures and exclusion areas.

6-9-10 []

Discuss investigation with the station

manager/property owner to:

6-9-10 []

- Identify subsurface structures not identified by markouts;

6-9-10 []

- Locate stockpile and/or drum storage areas;

6-9-10 []

- Identify water and/or electrical sources.

6-9-10 []

- Obtain or review blueprints/as-builts from the manager/owner.

6-9-10 []

Not available

Review proposed boring/trenching locations with Project Manager.

6-9-10 []

Establish "field" traffic control overview.

6-9-10 []

Review & Sign SHSP ("tailgate meeting").

6-9-10 []

Revised scope work approved and documented.

6-9-10 []

Revise SHSP for project.

6-9-10 []

Pre-Screen

EVALUATION CRITERIA		DATE	NA	COMMENTS
At Site, Prior to Start of Field Work				
Day of Intrusive Work	Examine the site to locate all proposed subsurface work.	6-17-10	[]	
	Photograph excavation locations with attention to utility markings (overhead issues).	6-17-10	[]	
	Define specific on-site exclusion zones.	6-17-10	[]	
	Locate actual utility meters (i.e. electric, gas, water), phones, lights, water/sewage sources with respect to where the work will occur.	6-17-10	[]	Had APS return to locate on site sewer via cleanouts
	Field Revise a to-scale site plan showing all overhead, subsurface structures and exclusion areas.	6-17-10	[]	
	Discuss investigation with the station manager/property owner to:	6-17-10	[]	
	- Identify subsurface structures not identified by markouts;	6-17-10	[]	
	- Locate stockpile and/or drum storage areas;	6-17-10	[]	
	- Identify water and/or electrical sources.	6-17-10	[]	
	- Obtain or review blueprints/as-builts from the manager/owner.		[]	Not available
	Review proposed boring/trenching locations with Project Manager.	6-17-10	[]	
	Establish "field" traffic control overview.	6-17-10	[]	
	Review & Sign SHSP ("tailgate meeting").	6-17-10	[]	
	Revised scope work approved and documented.	6-17-10	[]	
	Revised SHSP for project.	6-17-10	[]	
At Site, Prior to Start of Heavy Equipment Work				
Review/sign SHSP & walk site/scope of work with staff/Subcontractor.	6-17-10	[]		
Delineate safety exclusion work zone.	6-17-10	[]		
Appropriate shoring is available and "competent person" is on site.		[]		
Area of work evacuated by hand and/or air, the width of the proposed excavation (allow for Bit width and walk), to a depth of at least 5-ft. bgs.	6-17-10	[]		
If pea gravel or refusal is encountered stop excavation and call PM.		[]		
Include the completed checklist in the project file.				
Heavy Equipment on Site: (check those that apply)		Description of Site Activities: (check those that apply)		
[] Drill rig		[] Backhoe		
[] Direct Push		[] Excavator		
[] Vac truck		[] Drilling		
Other List:		[] Trenching		
		[] Excavation		
		[] Construction		
		[] Sampling		
		[] Direct Push		
		[] Tank Pull		
		[] Inspection/Cleaning		
		[] O & M		
Subcontractor Compliance with Delta Health & Safety Requirements:				
1. Delta Contractor Pre-Qualification Forms _____				
2. Training _____				
3. Equipment: _____				
4. Procedures: _____				
Contractor Works Directly for Client, NOT Delta Subcontractor:				
1. Delta Contacts Client and Identifies Contractor & Delta Roles: _____				
2. Identify who is managing the HSE issues at the site (Client Direct Contractor, Delta, Client, Each their Own, other)? _____				
Please note EXEMPLARY PRACTICES observed that can be shared:				

+ Larger Font | - Smaller Font

WASHINGTON ONE CALL**2 FULL BUSINESS DAYS**

Original Call Date:	6/09/10	Time:	2:48 PM	Op:	webusr3
Work to Begin Date:	6/17/10	Time:	7:00 AM		
Viewing Date:	6/09/10	Time:	2:54 PM	Op:	webusr3

Caller Information

Company:	DELTA ENVIRONMENTAL	Best Time:	8-5
Contact Name:	DAN ROWLANDS	Phone:	(425)785-8492
Alt. Contact:	BRYAN TAYLOR	Phone:	(425)260-9321
		Fax Phone:	
Email Address:	DROWLANDS@DELTAENV.COM		

Dig Site Information

Type of Work:	INSTALL ENVIRONMENTAL BORINGS
Work Being Done For:	DELTA

Dig Site Location

State:	WA	County:	KING
Place:	SEATAC		
Address:	19924		
Street:	PACIFIC HWY SOUTH		
Intersecting Street:	SOUTH 200TH STREET		

Location of Work:

MARK THE BOUNDARY OF ENTIRE PROPERTY: BORINGS WILL BE COMPLETED ALONG THE SOUTHERN MOST EDGE OF PROPERTY WITH PRIVATE LOCATE COMPLETING ONSITE SERVICES

Remarks:

CALLER REQUESTS DEPTH OF LINES MARKED IF POSSIBLE

Map Coord NW Lat: 0.0000000 **Lon:** 0.0000000 **SE Lat:** 0.0000000 **Lon:** 0.0000000

5176

LOCATE REQUEST

This is not an invoice



**APPLIED PROFESSIONAL
SERVICES INC.**
Solutions That Exceed Expectations

43530 SE North Bend Way · North Bend, WA 98045
Phone: (425) 888-2590 Fax: (425) 888-2554

DATE: 6-9-10PURCHASE ORDER #: 2611255 ^{Job #}CUSTOMER: DELTA

OFFICE PHONE: _____

BILLING ADDRESS: 4006 48th Ave NE

FAX: _____

CITY: REDMOND ST: WA ZIP: 98052CONTACT PERSON: BRIAN TOLSONPHONE: 425-210-7321**BILLING SUMMARY**LOCATOR'S NAME: MARK DALAN ^{76 station}LOCATE ADDRESS: 17964 Pacific Hwy S SEATACDESCRIPTION OF LOCATE: SEVEN LOCATIONS FOR SOIL TESTINGDESIGNATED SEVERAL LOWER LINES IN AREAFOUND LOWER NOT CONDUCTIBLE. ONE-CELLADVISED. MAY BE OLD TOWER GADUITS TO LIGHTSNO OTHER CONDUCTIBLES FOUND.TOTAL TIME INCLUDING TRAVEL: 3.0

This locate is being performed on private property at the customer's request. APS has no knowledge of, and customer has not furnished as-installed plans, drawings or other information of other utilities in the area of the requested locate. It is not guaranteed or implied that APS will find all underground utilities within the area. APS shall not be liable for damage to any type of facility, utility, or any loss or injury caused by such damage.

PAYMENT TERMS: NET 30 DAYS

CUSTOMER SIGNATURE: [Signature]LOCATOR SIGNATURE: [Signature] DATE: 6-9-10

CUSTOMER SHOULD CALL ONE-CALL FOR PUBLICLY OWNED UTILITIES 1-800-424-5555

CC CARD INFO: VISA MC _____ EXP DATE _____ ZIP: _____

+ Larger Font | - Smaller Font

WASHINGTON ONE CALL**2 FULL BUSINESS DAYS**

Original Call Date:	6/09/10	Time:	2:48 PM	Op:	webusr3
Work to Begin Date:	6/17/10	Time:	7:00 AM		
Viewing Date:	6/09/10	Time:	2:54 PM	Op:	webusr3

Caller Information

Company:	DELTA ENVIRONMENTAL	Best Time:	8-5
Contact Name:	DAN ROWLANDS	Phone:	(425)785-8492
Alt. Contact:	BRYAN TAYLOR	Phone:	(425)260-9321
		Fax Phone:	
Email Address:	DROWLANDS@DELTAENV.COM		

Dig Site Information

Type of Work:	INSTALL ENVIRONMENTAL BORINGS
Work Being Done For:	DELTA

Dig Site Location

State:	WA	County:	KING
Place:	SEATAC		
Address:	19924		
Street:	PACIFIC HWY SOUTH		
Intersecting Street:	SOUTH 200TH STREET		

Location of Work:

MARK THE BOUNDARY OF ENTIRE PROPERTY: BORINGS WILL BE COMPLETED ALONG THE SOUTHERN MOST EDGE OF PROPERTY WITH PRIVATE LOCATE COMPLETING ONSITE SERVICES

Remarks:

CALLER REQUESTS DEPTH OF LINES MARKED IF POSSIBLE

Map Coord NW Lat: 0.0000000 Lon: 0.0000000 SE Lat: 0.0000000 Lon: 0.0000000

CASCADE DRILLING DAILY WORK REPORT

PO Box 1184 – Woodinville, WA 98072 – 425-485-8908 #CASCADL91508
13600 SE Ambler Road – Clackamas, OR 97015 – 503-775-4118 #CCB-187984
555 S. Harbor Blvd. – La Habra, CA 90631 – 562-929-8176 #C57-938110
3632 Omec Circle – Rancho Cordova, CA 95742 #C57-938110

[illegible]

Client Signature

Operator Signature

CASCADE DRILLING DAILY WORK REPORT

PO Box 1184 - Woodinville, WA 98072 - 425-485-8908 #CASCADL91508
13600 SE Ambler Road - Clackamas, OR 97015 - 503-775-4118 #CCB-187984
555 S. Harbor Blvd. - La Habra, CA 90631 - 562-929-8176 #C57-938110
3632 Omec Circle - Rancho Cordova, CA 95742 #C57-938110

[illegible]

Client Signature _____

Operator Signature

CASCADE DRILLING DAILY WORK REPORT

P.O. Box 1184 • Woodinville, WA 98072 • **425-485-8908**
 6400 SE 101st Ave., Unit 2-D • Portland, OR 97266 • **503-775-4118**
 555 South Harbor Blvd. • La Habra, CA 90631 • **562-929-8176**
 3632 Omec Circle • Rancho Cordova, CA 95742 • **916-638-1169**

[illegible]

Delta Consultants Daily Field Log

Project Name: ELT

Project No.: 2611255

Date: 8-17-10

Location: Seatac

Delta Field Representative: Dan Rowlands

Delta Project Manager: Bryan Taylor

Client: COP-ELT

Contact: _____

Contractor _____

Contact _____

Other _____

Contact _____

Other _____

Contact _____

Time Record: 10 - 2:30

Weather: 85° & Sun

Notes:

DELTA personnel arrived & signed HASP

1030-1130 Assembled development pump to reach 40ft

1130-1230 Develop MW-10

1230-1330 Develop MW-9

1330-1430 Develop MW-11

Demob & return to office

Gallons purged

Date

MW-9

10

(8/17)

MW-10

12

(8/17)

MW-11

9

(8/17)

MW-12

10

(8/12)

MW-13

13

(8/12)

1 Purge water drum remains onsite, all others removed by PSC (8/12)

Signature:

DR

Date:

8-17-10

Continued...

Yes

No

PSC

SHIPPING PAPER

Lading Manifest: 311053-10

SHIPPER / CUSTOMER BP STATION # 11255		DELIVERY DATE	JOB # 1183643
ADDRESS 19924 PACIFIC AVE SOUTH		POINT OF CONTACT JIM COPPERNOLL	
CITY, STATE, ZIP SEATTLE WA 98148		PHONE # (425) 350-7645	
CARRIER / TRANSPORTER HURLINGTON ENVIRONMENTAL, LLC		PHONE # (253) 383-3044	
CONSIGNEE / FACILITY HURLINGTON ENVIRONMENTAL, LLC		POINT OF CONTACT	
ADDRESS 20245 77TH AVENUE SOUTH		PHONE # (253) 872-8030	
CITY, STATE, ZIP KENT WA 98032			

HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers		Total Quantity	UOM
		No.	Type		
A	NON HAZARDOUS, NON-DOT REGULATED (SOIL)	13	DM	10,400	P
B	NON-HAZARDOUS LIQUID (DECON WATER)	3	DM	165	G
C					
D					

Special Handling Instruction and Additional Information:

a) 425995-00 - NON HAZ SOIL - LF01 STAB01 (1) b) 425996-00 - NON HAZ DECON WATER - STAB01 WAT05 (2)

Placards Provided YES _____ NO _____

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

(SHIPPER) PRINT OR TYPE NAME X Dan Bowlands	SIGNATURE X [Signature]	MONTH 8	DAY 12	YEAR 10
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME X Mark E. Bowman	SIGNATURE X [Signature]	MONTH 8	DAY 12	YEAR 10
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME X	SIGNATURE X	MONTH	DAY	YEAR

SHIPPER



PNW - ESG - TRANSPORTATION GROUP

☐ RESOURCE RECOVERY 1629 East Alexander Ave., Tacoma WA 98421 (253) 383-3044
☒ BEI PUGET SOUND 1629 East Alexander Ave., Tacoma WA 98421 (253) 383-3044

BILL OF LADING

DATE 8/12/10		BEGINNING MILEAGE 267937		ON DUTY 930		AM PM	
DRIVER NAME MARK BOWMAN		ENDING MILEAGE		OFF DUTY		AM PM	
VEHICLE NO. 101		TRAILER NO.	BOX NO.	COST CENTER 8000	SHIPPERS NO. 31105310	ORDER NO. 1183813	
SHIPPER / ORIGIN NAME BP STATION # 11255				WEIGH INFORMATION GROSS		FOR OFFICE USE ONLY	
ADDRESS 19974 PACIFIC AVE South				TARE		MILEAGE	
CITY Senter STATE WA ZIP 98148				NET		CONTAINER	
QUANTITY		DOT PROPER SHIPPING NAME				RATE	
See Manifest						FREIGHT	
						PLEASE PAY THIS AMOUNT →	

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation.

X

DATE

8-12-10

DESTINATION

NAME Bai		RECEIPT #	
ADDRESS 20245 77th Ave South			
CITY Kent	STATE WA	ZIP 98030	
VEHICLE NO. 101	TRAILER NO.	DATE 8/12/10	
☐ LOADED	☐ UNLOADED	☐ RINSED	

ARRIVAL TIME: 1015.

LOAD TIME: START:	AM PM	____ HRS. FREE TIME	UNLOAD TIME: START:	AM PM	____ HRS. FREE TIME
FINISH:	AM PM	____ HRS. CHARGEABLE	FINISH:	AM PM	____ HRS. CHARGEABLE
REASON FOR LOAD DELAY:			REASON FOR LOAD DELAY:		
SIGNATURE FOR DELAY:			SIGNATURE FOR DELAY:		
DRIVER SIGNATURE					

COMMENTS:

CUSTOMER COPY

Delta Consultants

Daily Field Log

Project Name:

COP ELT

Project No. :

2611255

Date

10-13-10

Location

SEATAC

Delta Representative:

DR & TB

Delta PM:

Bryan Taylor

Client:

COP ELT

Contractors

Ø

Contact

Contact

Contact

Contact

Visitors:

(Name/Co.)

Ø

Weather:

55° sun

Purpose:

Survey new well elevations

Field Notes:

DELTA personnel arrived onsite @ 900

- SET up at one central location

• Surveyed 5 new well + MW-3 (Known elevation)

- Demobed & offsite @ 1000

MW-3 = 98.89 (Known)

MW-9 through MW-13 are attached

Initials:

DR

Page 1 of 1

SURVEYING FIELD SHEET FORM

Project No.: 2611255 Site Name: 2611255- COP/ELT
 Personnel: DR & TB Date: 10-13-10
 Instrument: AL-200

***** (Attach site plan with locations to this sheet) *****

Location	Readings			Check (Differences)		Elevation
	Top	Middle	Bottom	Top-Mid	Mid-Bottom	
MW-9	5.21	4.82	4.43	0.39	0.39	98.99
MW-10	5.41	5.30	5.19	0.11	0.11	98.51
MW-11	5.81	5.70	5.59	0.11	0.11	98.11
MW-12	6.21	6.05	5.89	0.16	0.16	97.76
MW-13	6.64	6.48	6.32	0.16	0.16	97.33
MW-3	5.30	4.92	4.54	0.38	0.38	98.89

Additional Notes:



FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 5-21-11	
ENDING ODOMETER:		PROJECT NUMBER: 2611077	
FIELD ACTIVITY SUBJECT: Air Knife wells in street		RECORDED BY: DR	REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:	
745	ANTEA Group arrives onsite		
	Complete safety documentation		
800	Altus, Cascade, & off		
	duty BURIEN Sheriff onsite.		
	Safety Meeting		
820	Set up traffic control		
925	Cascade set up Rig in East bound lane		
935	Begin Air Knife. Locations chosen are 30ft apart		
	starting 20ft from intersection		
950	Hit more asphalt @ approx 14" bgs. Multiple layers		
	undo to jackhammer w/o making huge hole/mess		
1000	Try second location - Same refusal		
	-will reschedule with Concrete core to take		
	another weekend of drilling. Took photos		
	For next attempt: expand traffic control to		
	left hand turn lane for work/drilling		
	• will need 2-3 police officers, 3 flaggers		
	• turn signal to flash & have officers direct		
1020	Patch holes (only 2 started)		
1100	Cascade offsite. Waiting Antea & Altus for patch to set		
WEATHER CONDITIONS: RAIN		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED	
AMBIENT AIR MONITORING: ✓		Concrete Core	
VISITORS ONSITE: Seatac inspector - Scott		TELEPHONE CALLS: Brian Goes - cancel Sunday	
ANTEA GROUP PERSONNEL ONSITE: DR & BT		PSE - Locator w/ utility w/in 10ft	
		Police Guild - updates	



anteagroup

FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 6-26-11
ENDING ODOMETER:		PROJECT NUMBER: 2611255
FIELD ACTIVITY SUBJECT: Street Drilling		RECORDED BY: DR REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
745	Antea's DR & BT meet onsite with Altus & police officers (4)	
	Safety meeting + work plan	
808	Altus begins to set up w/ assistance of marked cars	
820	Cascade & Antea conduct	
	safety meeting & work plan. Complete site walk as Altus finishes setting up	
845	Gauged DTW in wells onsite. 30-35 ft bgs	
850	Cascade setting up in street lane closure	
900	Begin drilling MW-14. Sample 5, 10, 15, 20, 25 - little or no odors noted, water @ 27 ft - set 2" well screened 20-35	
11:00	Begin drilling MW-15. Sample 5, 10, 15, 20, 25, 30 - little or no odors. screened 17-32	
11:20	Develop MW-14. Purge ~ 30 gallons, cleared nicely	
12:20	Finished MW-15, begin to develop & demobe drilling equipment. Purge ~ 30 gallons, water sets @ 25'	
13:30	Cascade offsite, Altus Demobe, BT offsite	
1400	DR offsite	
WEATHER CONDITIONS: 70° sun		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING: Ø		
VISITORS ONSITE: Ø		
TELEPHONE CALLS: Ø		
ANTEA GROUP PERSONNEL ONSITE: DR & BT		



FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 6-25-11	
ENDING ODOMETER:		PROJECT NUMBER: 2611255	
FIELD ACTIVITY SUBJECT: Air Knife & Concrete Coring		RECORDED BY: DR	REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:	
745	Don Rowlands arrives onsite		
	- Altus & Dakota onsite		
755	Three Police officers & Cascade arrive onsite. BT & TB arrive		
800	Safety meeting with Altus & Police. Discuss confusion w/ extra police. Altus had also booked 2 cops.		
830	Seatac Inspector onsite. Altus setting up		
845	Cascade & Dakota Safety meeting		
905	Mobe to street		
930	Begin clearing three holes		
1000	No concrete encountered - Finished 1st hole. Thick patch		
1000	No Concrete - Finished - 2nd → patch small for drilling		
1145	Dakota not needed anymore. Signed & gone		
1200	No concrete - Finish clearing 3rd hole. Thin patch		
1210	Demobe. Cascade offsite 12:20		
1220	Altus clearing street w/ police officer's help.		
1250	Altus & Police offsite		
1300	ANTEA offsite		
WEATHER CONDITIONS: Overcast & 60		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED	
AMBIENT AIR MONITORING:			
VISITORS ONSITE:			
TELEPHONE CALLS:			
ANTEA GROUP PERSONNEL ONSITE: DR, TB, BT			

AUTHORIZATION TO WORK

PRE-TASK HAZARD PREVIEW	
TASK	EQUIPMENT
Air Knife	Cascade Vac/AK truck
Concrete Core	Dakota Concrete
Traffic Control	Altus & Police vehicles

Chemical / Products / Material				
1. ☐ Hydrogen Sulfide	2. ☒ Benzene	3. ☒ Diesel	4. ☒ Hydrocarbon	5. ☐ Acid
6. ☐ Lead	7. ☐ Carbon Monoxide	8. ☐ Asbestos	9. ☐ Caustic	10. ☒ Gasoline
11. ☐ Heavy Metals	12. ☐ NORMS	13. ☐ Other:		

Hazardous Energy				
19. ☐ Radiation	20. ☒ Electric	21. ☒ Pneumatic	22. ☐ Thermal - Steam	23. ☒ Hydraulic
24. ☐ Pressure	25. ☒ Mechanical	26. ☐ Fluids & Gases		
27. ☒ Gravitational		28. ☐ Other:		

Other Potential Hazards				
34. ☒ Walking/Working Surfaces	35. ☒ Traffic	36. ☐ Working at Heights	37. ☒ Pinch Points	
38. ☒ Weather	39. ☒ Noise	40. ☐ Grinding	41. ☒ Heavy Equipment	42. ☒ Sharp Edges
43. ☐ Hot Work	44. ☒ Security	45. ☐ Congested Area	46. ☐ Overhead Work	47. ☒ Lifting
48. ☐ Static Posture	49. ☐ Wind	50. ☒ Rotating Equipment	51. ☒ Slopes & Terrain	52. ☒ Rigging
53. ☐ Spills	54. ☐ Underground Utility	55. ☐ Ground Disturbance	56. ☒ Container/Drum Labels	57. ☒ Fitness to Work
58. ☐ Vibration	59. ☐ Repetitive Motion	60. ☐ Hand & Power Tools	61. ☐ Exposure to poisonous plants/animals/bugs	62. ☐ Other:
63. ☐ Waste	64. ☐ Heat/Cold Stress	65. ☐ Lighting	66. ☐ Auger/Drill Stem	
67. ☐ Open Pipe	68. ☐ Boom Swing	69. ☐ Other:		
70. ☐ Overhead Electrical				

Required Safety Precautions				
79. ☒ Safety Glasses	80. ☐ Goggles	81. ☒ Face Shield	82. ☒ Ear Plugs	83. ☒ Reflective Vest
84. ☒ Hard Hat	85. ☐ Escape Pak	86. ☒ Safety Toe Shoes	87. ☐ Ear Muffs	88. ☐ Respirator
89. ☐ FRC	90. ☐ Supplied Air	91. ☐ Topical Creams Repellants	92. ☒ Gloves: WORK	93. ☐ Fall Protection
94. ☐ Fire Watch	95. ☐ Drip Pans	96. ☒ Plastic Sheetting	97. ☐ Warning Signs	98. ☐ Sampling Prohibited
99. ☐ Fire Blanket	100. ☐ Upwind Areas Checked	101. ☐ Fire Extinguisher at Jobsite	102. ☐ Welding Shields	103. ☐ Ladder Tie Off
104. ☐ Seal Manholes, Sewers and Catch Basins	105. ☐ Communication Method	106. ☐ Wet Down Area	107. ☐ Active Hazard Communication	108. ☐ Other:
109. ☐ Continuous Monitoring	109. ☐ Other:			
110. ☐ Tag Lines				
111. ☐ Fence Off Area				

REQUIRED PROCEDURES					
☒ Drilling	☐ MOC	☒ Traffic Control	☐ LO/TO/Blinding	☐ Hoist/Lifting	☐ Journey Hazard Assessment

REQUIRED PERMITS			
☐ Hot Work	☒ Ground Disturbance	☐ Confined Space	☐ Working From Heights
			☐ None

SIGNATURES	
Contractor(s)/Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job sites to my supervisor and / or BP representative so they can be co	
1. Dan Rowlands	7. Thuan Bui
2. Naomi Meher	8. Elijah Floyd
3. Bryan Taylor	9. John Breyman
4. Nick Ross	10. Luis Torres
5. John McAndrews	11.
6.	12.
On Site Project Manager: Dan Rowlands	Date: 6-25-11
Location of Site Work: Seatac, WA	
Site: 2611255	Time Issued: 800
Time Expires: 1800	AM
☒ IS HASP onsite	☐ IS ERP onsite
☒ IS JSA onsite	
Authorization Name (Printed): Dan Rowlands	Authorization Signature: [Signature]

AUTHORIZATION TO WORK

TASK	EQUIPMENT
Traffic Control	Altus & Polia
Drilling	Cascade CME drill rig

Chemical / Products / Material				
1. ☐ Hydrogen Sulfide	2. ☒ Benzene	3. ☒ Diesel	4. ☒ Hydrocarbon	5. ☐ Acid
6. ☐ Lead	7. ☐ Carbon Monoxide	8. ☐ Asbestos	9. ☐ Caustic	10. ☒ Gasoline
11. ☐ Heavy Metals	12. ☐ NORMS	13. ☐ Other: _____		

Hazardous Energy				
19. ☐ Radiation	20. ☐ Electric	21. ☒ Pneumatic	22. ☐ Thermal - Steam	23. ☒ Hydraulic
24. ☐ Pressure	25. ☒ Mechanical	26. ☒ Fluids & Gases		
27. ☒ Gravitational	28. ☐ Other: _____			

Other Potential Hazards				
34. ☒ Walking/Working Surfaces	35. ☒ Traffic	36. ☐ Working at Heights	37. ☒ Pinch Points	
38. ☒ Weather	39. ☒ Noise	40. ☒ Grinding	41. ☒ Heavy Equipment	42. ☐ Sharp Edges
43. ☐ Hot Work	44. ☒ Security	45. ☐ Congested Area	46. ☐ Overhead Work	
47. ☒ Body position	48. ☐ Static Posture	49. ☐ Wind	50. ☒ Rotating Equipment	51. ☒ Lifting
52. ☒ Housekeeping	53. ☐ Spills	54. ☒ Underground Utility	55. ☒ Slopes & Terrain	56. ☒ Rigging
57. ☐ Confined Space	58. ☒ Ground Disturbance	59. ☐ Repetitive Motion	60. ☒ Container/Drum Labels	61. ☒ Fitness to Work
62. ☒ Vehicle Safety - Driving	63. ☐ Waste	64. ☒ Heat/Cold Stress	65. ☒ Hand & Power Tools	66. ☒ Exposure to poisonous plants/animals/bugs
67. ☐ Open Pipe	68. ☐ Boom Swing	69. ☐ Lighting	70. ☐ Auger/Drill Stem	71. ☐ Other: _____

Required Safety Precautions				
79. ☒ Safety Glasses	80. ☐ Goggles	81. ☒ Face Shield	82. ☒ Ear Plugs	83. ☒ Reflective Vest
84. ☒ Hard Hat	85. ☐ Escape Pak	86. ☒ Safety Toe Shoes	87. ☐ Ear Muffs	88. ☐ Respirator
89. ☐ FRC	90. ☐ Supplied Air	91. ☐ Topical Creams Repellants	92. ☒ Gloves: WORK	93. ☒ Fall Protection
94. ☐ Fire Watch	95. ☐ Drip Pans	96. ☐ Plastic Sheetting	97. ☐ Vac Truck	98. ☐ Warning Signs
99. ☐ Barricade	100. ☐ Fire Blanket	101. ☐ Upwind Areas Checked	102. ☐ Fire Extinguisher at Jobsite	103. ☐ Sampling Prohibited
104. ☐ Flag Off Area	105. ☐ Life Lines	106. ☐ Communication Method	107. ☐ Wet Down Area	108. ☐ Welding Shields
109. ☐ Seal Manholes, Sewers and Catch Basins	110. ☐ Continuous Monitoring	111. ☐ Ladder Tie Off	112. ☐ Active Hazard Communication	113. ☐ Other: _____
114. ☐ Tag Lines	115. ☐ Fence Off Area			

REQUIRED PROCEDURES					
☒ Drilling	☐ MOC	☒ Traffic Control	☐ LO/TO/Blinding	☐ Hoist/Lifting	☐ Journey Hazard Assessment

REQUIRED PERMITS				
☐ Hot Work	☐ Ground Disturbance	☐ Confined Space	☐ Working From Heights	☐ None

SIGNATURES			
Contractor(s)/Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job sites to my supervisor and / or BP representative so they can be co			
1. <u>Dan Rowlands</u>	7. <u>Bryan Taylor</u>		
2. <u>Nick Ross</u>	8. _____		
3. <u>Frank Fuller</u>	9. _____		
4. <u>Danny Arnold</u>	10. _____		
5. <u>Will H</u>	11. _____		
6. <u>Scott K</u>	12. _____		
On Site Project Manager: <u>Dan Rowlands</u>	Date: <u>6-26-11</u>	Location of Site Work: <u>Seatac, WA</u>	
Site: <u>2611255</u>	Time Issued: <u>800</u> AM	Time Expires: <u>1900</u> AM	
☒ IS HASP onsite	☒ IS ERP onsite	☒ IS JSA onsite	
Authorization Name (Printed): <u>Dan Rowlands</u>	Authorization Signature: <u>[Signature]</u>		

DRUM INVENTORY



DATE:

6-26-11

SITE:

2611255

NUMBER OF DRUMS:

10

SIZE OF DRUMS:

55 gal

PERCENT FULL:

100

CONTENT OF DRUMS:

7 soils, 3 waters

LABEL ATTACHED, LEGIBLE, AND DATED?

YES

Traffic Management
 Worksite Diary / Time Sheet

A separate Time Sheet must be used for every shift

6269

 Date 6-25-11

 Customer Anteq

 Job/Purchase Order No 2611255

 Location 200th & International Blvd.

Permit No.

Vehicle Rego	Start Mileage	Finish Mileage	Total Gal.	Arrowboards	Traffic Lights	No of Vehicles	Other	Outside 50km Radius	Additional Vehicle Rego
24	28731			1	-	1	-	-	82

Names	Driver	TL	Leave Yard	Start on Site	finish on Site	Arrive Yard	Break	Total Hours	Signs Taken Out on Vehicle	Signs Returned on Vehicle	Equipment left on site
Team Leader											
Naomi Neher	-	-	7am	8am	1pm	-	0	6		1919	
Nicholas Ross			7am	8am	1pm	-	0	6			
Hideo Lamley			-	8am	12pm	-	0	4			
Gary Leach			-	8am		-					
Comments										Expected Pick Up Date of equipment	

Sign Diary

Time Out	Signs, Distance & sign Location	Times Checked	Time in
8:15	RWA 750' N of 200 th on SB International	9am	
8:18	BPTS 450' N of 200 th on SB International Blvd.		
8:20	FA. 150' N of 200 th on SB International Blvd	10am	
8:22	RWA 750' S of 200 th on NB International Blvd.		
8:24	BPTS 450' S of 200 th on NB International Blvd.	11am	
8:26	FA. 150' S of 200 th on NB International Blvd.		
8:28	RWA W side of 32 nd on WB 200 th St.	12pm	
8:30	BPTS 100' W of 32 nd on WB 200 th St		
8:32	FA 200' W of 32 nd on WB 200 th St		
8:34	RWA 600' W of International Blvd on EB 200 th St.		
8:36	TT Merge Right. 450' W of International Blvd on EB 200 th St		
8:38	BPTS 300' W of International Blvd on EB 200 th St		
8:40	FA 200' W of International Blvd on EB 200 th St		
8:45	CA 82 100' W of International Blvd on EB 200 th St.		
8:52	WB 200 th St & International Blvd.		12:15
9:05	Detour 100' E of International Blvd on WB 200 th St		
9:07	Detour ← E side of on WB 200 th St.		
9:10	Detour ← N side of 104 th on SB		
9:50	→ E side of International on EB 200 th St		12:10
9:52	7130' E of International Blvd on WB 200 th St		
	I added a NLT on WB 200 th traffic and 3 Detour signs for the drivers wanting to go S on International Blvd.		

Additional Comments

Inspector said we did not need type III's. We put High vis flags on both Arrow signs

Altus Representative

Date

6-25-11

Client Representative

Anteq Dan Rowlands

Name

DR Rowlands



Traffic Management Worksite Diary / Time Sheet

A separate Time Sheet must be used for every shift

Date 6-26-2011

Customer Alfred Wilson

Job/Purchase Order No 70422

Location 200 International Blvd SeaTac

Permit No.

Sign Diary

Time Out	Signs, Distance & sign Location	Times Checked	Time in
801	RWA South on Interstate Blvd	12	
804	BPTS South on Interstate Blvd	↓	
804	Flagger ahead 1/2 mi. ahead B		
812	RWA North on Interstate Blvd	12	
815	BPTS North on Interstate Blvd	↓	
815	Flagger ahead 1/2 mi. ahead B		
820	RWA West on 700' S	12	
821	BPTS West on 700' S	↓	
821	Flagger ahead West on 700' S	↓	
830	RWA East on 200' S	12	
831	Trans-railing Merge ¹⁹⁴ East on 700' S	↓	
835	Trans bell East on 200' S	↓	
836	Flagger East on 200' S	↓	
838	Flagger East on 200' S	12	
838	Flagger East on 200' S	↓	

4 Scams

Additional Comments

Altus Representative

Date _____

Client Representative

Name

Version No: 4

QA 035

Printed hardcopies are uncontrolled, check for the latest version on Intranet

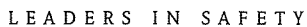
Updated date: JUNE 09 Page 1 of 1



PO Box 1184 – Woodinville, WA 98072 – 425-485-8908 # CASCADL91508
13600 SE Ambler Road – Clackamas, OR 97015 – 503-775-4118 #CCB-187984
555 S. Harbor Blvd. – La Habra, CA 90631 – 562-929-8176 #C57-938110
3632 Omec Circle – Rancho Cordova, CA 95742 – 916-638-1169 #C57-938110

Client Signature _____

Operator Signature



PO Box 1184 – Woodinville, WA 98072 – 425-485-8908 #CASCADL91508
13600 SE Ambler Road – Clackamas, OR 97015 – 503-775-4118 #CCB-187984
555 S. Harbor Blvd. – La Habra, CA 90631 – 562-929-8176 #C57-938110
3632 Omec Circle – Rancho Cordova, CA 95742 – 916-638-1169 #C57-938110

Client Signature _____ Operator Signature _____

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

1467753

Pace Project No./ Lab I.D.

F-ALL-Q-020rev.07, 15-May-2007



FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 7/5/11
ENDING ODOMETER:		PROJECT NUMBER: 2611255
FIELD ACTIVITY SUBJECT: Private locating, air knife/vac, sonic drilling		RECORDED BY: M. Manivong REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
10:20	onsite. H&S w/ APS. Began locating underground utilities & clearing proposed boring locations	
	H&S w/ air knife/vac crew from CDLP.	
11:00	APS offsite. Began air knife on MW-16. CDLP sonic drill crew arrives. H&S w/ sonic drill team.	
11:20	Began air knife on AS-1.	
	DTW: MW-10 26.55 MW-7 25.90 MW-11 25.55 MW-13 25.00	
12:00	setting up sonic on MW-16.	
12:40	Began drilling MW-16. Began air knife on AS-2 & MW-17.	
15:00	Air knife/vac crew completed clearing MW-16, MW-17, AS-1, & AS-2 to 5.0 ft bgs & backfilling. Cleaning area.	
	DTW: MW-16 26.00	
15:15	APS Air knife/vac crew offsite	
16:00	BT offsite. continuing to set well & clean. 3 SOIL DRUMS 1 DECON DRUM	
18:00	offsite: all personnel.	
WEATHER CONDITIONS: Sunny 75°F		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING:		
VISITORS ONSITE:		
ANTEA GROUP PERSONNEL ONSITE: Bryan Taylor, Mackie Manivong		TELEPHONE CALLS:



FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 7/6/11
ENDING ODOMETER:		PROJECT NUMBER: 2611255
FIELD ACTIVITY SUBJECT: SONIC DRILLING		RECORDED BY: M. Manivong REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
7:30	Onsite.	
8:00	Stage vehicles for drilling on AS-1.	
8:45	DTW: MW-16 20.00 Developing MW-16	
9:00	Began drilling AS-1. E. Larsen Onsite ~ 10:00	
11:15	Completed drilling AS-1. Setting well.	
11:30	E. Larsen offsite.	
11:45	BT offsite. Deconing & cleaning. Continuing to set AS-1.	
13:00-13:30	Lunch.	
13:30	Staging vehicles on AS-2.	
13:50	Began drilling AS-2.	
15:05	DTW: AS-1 18.88 TD: AS1 32.00	
	MW-16 26.80	
16:40	MW-16 27.80	
	Completed drilling AS-2. Setting well casing.	
16:55	Developing AS-1.	
18:00	MM. offsite.	
19:30	All personnel offsite.	
WEATHER CONDITIONS: Sunny 80°F		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING:		
VISITORS ONSITE:		TELEPHONE CALLS:
ANTEA GROUP PERSONNEL ONSITE: Mackie Manivong & Bryan Taylor		



anteagroup

FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 7/7/11	
ENDING ODOMETER:		PROJECT NUMBER: 2611255	
FIELD ACTIVITY SUBJECT: Sonic drilling		RECORDED BY: M. Manivong	REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:	
7:30	Onsite. H & S mtg.		
	AS-2 = 22.00		
	MW-4 = 27.31 } Prior to drilling.		
	MW-6 = 26.78 }		
8:30	Station owner upset about us closing down dispensers. Tried to tell him that we weren't done setting up. He threatened to call cops. Mackie called Bryan Taylor. We told him we'd set up the rigs and let him inspect before we start drilling. H&S tailgate conducted.		
9:00	Set up exclusion zone - only blocking dispensers 1+3. Owner seems fine w/ it.		
9:30	Bryan Taylor on site. Spoke w/ owner to smooth things over. Emphasized sediment/water containment w/ Cascade. Nearby catch basins covered and surrounded by booms. Plastic sheeting set up like a secondary containment around MW-17.		
0945	Begin drilling MW-17.		
11:00	Began setting well in MW-17.		
12:00 - 13:00	Jim Pender from CDLP onsite.		
13:30	Prepped for development but not enough drums left. No development. Continue cleaning up.		
15:00	All personnel off site.		
WEATHER CONDITIONS: Light rain 50°F		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED	
AMBIENT AIR MONITORING:			
VISITORS ONSITE:		TELEPHONE CALLS:	
ANTEA GROUP PERSONNEL ONSITE: Mackie Manivong / Megan Macdonald			

REMEDATION MANAGEMENT - AUTHORIZATION TO WORK

PRE-TASK HAZARD REVIEW

TASK		EQUIPMENT	
1. private locates		1. locating equipment	
2. air knife / vac		2. air knife / vac truck	
3. drilling		3. drill rig (sonic)	
4.		4.	
5.		5.	
6.		6.	

Chemical / Products / Material					
1. ☐ Hydrogen Sulfide	2. ☒ Benzene	3. ☒ Diesel	4. ☒ Hydrocarbon	5. ☒ Acid	6. ☐ Lead
7. ☒ Carbon Monoxide	8. ☐ Asbestos	9. ☐ Caustic	10. ☒ Gasoline	11. ☐ Heavy Metals	
12. ☐ NORMS	13. ☐ Other:				

Hazardous Energy			
19. ☐ Radiation	20. ☐ Electric	21. ☒ Pneumatic	22. ☒ Thermal-Steam
23. ☒ Hydraulic	24. ☒ Pressure	25. ☒ Mechanical	26. ☐ Fluids & Gases
27. ☒ Gravitational	28. ☐ Other:		

Other Potential Hazards			
34. ☐ Walking / Working Surfaces	35. ☒ Traffic	36. ☐ Working at Heights	37. ☐ Pinch Points
38. ☐ Weather	39. ☐ Noise	40. ☐ Grinding	41. ☐ Heavy equipment
42. ☐ Sharp Edges	43. ☐ Hot Work	44. ☐ Security	45. ☐ Congested Area
46. ☐ Overhead Work	47. ☐ Body Position	48. ☐ Static Posture	49. ☐ Wind
50. ☐ Rotating Equipment	51. ☐ Lifting	52. ☐ Housekeeping	53. ☐ Spills
54. ☐ Underground Utility	55. ☐ Slopes and Terrain	56. ☐ Confined Space	57. ☐ Vibration
58. ☐ Ground Disturbance	59. ☐ Rigging	60. ☐ Vehicle Safety - Driving	61. ☐ Repetitive Motion
62. ☐ Container/Drum Labels	63. ☐ Waste	64. ☐ Heat/Cold Stress	65. ☐ Hand & Power Tools
66. ☐ Fitness to Work	67. ☐ Open Pipe	68. ☐ Boom Swing	69. ☐ Lighting
70. ☐ Exposure to poisonous plants / animals / bugs	71. ☐ Overhead Electrical	72. ☐ Auger/Drill Stem	73. ☐ Other:

Required Safety Precautions			
79. ☒ Safety Glasses	80. ☐ Goggles	81. ☐ Face Shield	82. ☐ Ear Plugs
83. ☐ Reflective Vest	84. ☐ Hard Hat	85. ☐ Escape Pak	86. ☐ Safety Toe Shoes
87. ☐ Ear Muffs	88. ☐ Respirator	89. ☐ FRC	90. ☐ Supplied Air
91. ☐ Topical Creams / Repellants	92. ☐ Gloves	93. ☐ Fire Watch	94. ☐ Drip Pans
95. ☐ Plastic Sheeting	96. ☐ Vac Truck	97. ☐ Fall Protection	98. ☐ Barricade
99. ☐ Fire Blanket	100. ☐ Upwind Areas Checked	101. ☐ Warning Signs	102. ☐ Flag Off Area
103. ☐ Life Lines	104. ☐ Fire Extinguisher at Jobsite	105. ☐ Sampling Prohibited	106. ☐ Seal Manholes, Sewers, and Catch Basins
107. ☐ Communication Method	108. ☐ Welding Shields	109. ☐ Continuous Monitoring	110. ☐ Wet Down Area
111. ☐ Ladder Tie Off	112. ☐ Tag Lines	113. ☐ Active Site Hazard Communication	114. ☐ Fence Off Area
115. ☐ Other:			

REQUIRED PROCEDURES	
☒ Drilling	☐ MOC
☒ Traffic Control	☐ LO/TO/Blinding
☐ Hoist/Lifting	☒ Journey Hazard Assessment

REQUIRED PERMITS	
☐ Hot Work	☐ Ground Disturbance
☐ Confined Space	☐ Working from Heights
☐ None	

Contractor(s) / Employee(s) Signature: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job site to my supervisor and / or BP representative so they can be corrected as necessary.		1. <i>[Signature]</i>	2. <i>[Signature]</i>
3. <i>[Signature]</i>	4.	5. <i>[Signature]</i>	6.
7. <i>[Signature]</i>	8.	9.	10.
11.	12.		

Onsite Project Manager: <i>BT</i>	Date: <i>7/5/11</i>	Location of Site Work: <i>Satrac 2611255</i>
Site: <i>2611255</i>	Date/Time Issued: <i>7/5/11 10:00 am</i>	Date/Time Expires: <i>7 am/pm</i>
☒ Is HASP onsite?	☒ Is ERP onsite?	☐ Is JSA onsite?
Authorization Signature: <i>[Signature]</i>		

REMEDATION MANAGEMENT - AUTHORIZATION TO WORK

PRE-TASK HAZARD REVIEW					
TASK			EQUIPMENT		
1.	Sonic drilling		1.	Drill rig	
2.			2.	support truck	
3.			3.		
4.			4.		
5.			5.		
6.			6.		
Chemical / Products / Material					
1. ☐ Hydrogen Sulfide	2. ☒ Benzene	3. ☐ Diesel	4. ☒ Hydrocarbon	5. ☐ Acid	6. ☐ Lead
7. ☒ Carbon Monoxide	8. ☐ Asbestos	9. ☐ Caustic	10. ☐ Gasoline	11. ☐ Heavy Metals	
12. ☐ NORMS	13. ☐ Other:				
Hazardous Energy					
19. ☐ Radiation	20. ☒ Electric	21. ☒ Pneumatic	22. ☐ Thermal-Steam		
23. ☒ Hydraulic	24. ☐ Pressure	25. ☒ Mechanical	26. ☐ Fluids & Gases		
27. ☒ Gravitational	28. ☐ Other:				
Other Potential Hazards					
34. ☒ Walking / Working Surfaces	35. ☒ Traffic	36. ☐ Working at Heights	37. ☐ Pinch Points		
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60. ☐ Vehicle Safety - Driving	61. ☐ Repetitive Motion	62. ☐ Container/Drum Labels		63. ☐ Fitness to Work	
64. ☒ Heat/Cold Stress	65. ☒ Hand & Power Tools	66. ☐ Exposure to poisonous plants / animals / bugs		67. ☐ Open Pipe	
68. ☒ Boom Swing	69. ☐ Lighting	70. ☐ Exposure to poisonous plants / animals / bugs	71. ☐ Overhead Electrical		
72. ☒ Auger/Drill Stem	73. ☐ Other:				
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89. ☐ FRC	90. ☐ Supplied Air	91. ☐ Topical Creams / Repellants	92. ☐ Gloves	93. ☒ Fire Watch	
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110. ☐ Wet Down Area	111. ☐ Ladder Tie Off				
112. ☐ Tag Lines	113. ☐ Active Site Hazard Communication				
114. ☐ Fence Off Area	115. ☐ Other:				
REQUIRED PROCEDURES					
☒ Drilling	☐ MOC	☒ Traffic Control	☐ LOTO/Blinding	☐ Hoist/Lifting	☒ Journey Hazard Assessment
REQUIRED PERMITS					
☒ Hot Work	☒ Ground Disturbance	☐ Confined Space	☐ Working from Heights	☐ None	
Contractor(s) / Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job site to my supervisor and / or BP representative so they can be corrected as necessary.					
1. <i>[Signature]</i>		2. Mackie Manivong			
3. Kevin Rogers		4. Andy Flagan			
5.		6.			
7. Will Hemmick		8.			
9.		10.			
11.		12.			
Onsite Project Manager: BT		Date: 7/6/11		Location of Site Work: Seatac	
Site: 2611255		Date/Time Issued: 7/6/11 7:00 am		Date/Time Expires: 7:00 am	
☒ Is HASP onsite?		☐ Is ERP onsite?		☒ Is JSA onsite?	
Authorization Signature: <i>[Signature]</i>					

REMEDIATION MANAGEMENT - AUTHORIZATION TO WORK

PRE-TASK HAZARD REVIEW					
TASK			EQUIPMENT		
1.	sonic drilling		1.	drill rig	
2.			2.	support truck	
3.			3.		
4.			4.		
5.			5.		
6.			6.		
Chemical / Products / Material					
1.	☐ Hydrogen Sulfide	2.	☒ Benzene	3.	☐ Diesel
4.	☒ Carbon Monoxide	5.	☒ Hydrocarbon	6.	☐ Acid
7.	☐ Asbestos	8.	☐ Caustic	9.	☒ Gasoline
10.	☐ NORMS	11.	☐ Heavy Metals	12.	☐ Other:
Hazardous Energy					
19.	☐ Radiation	20.	☒ Electric	21.	☒ Pneumatic
22.	☒ Hydraulic	23.	☒ Pressure	24.	☒ Mechanical
25.	☒ Gravitational	26.	☐ Thermal-Steam	27.	☐ Fluids & Gases
28.	☐ Other:				
Other Potential Hazards					
34.	☒ Walking / Working Surfaces	35.	☒ Traffic	36.	☐ Working at Heights
37.	☒ Weather	38.	☒ Noise	39.	☐ Pinch Points
40.	☐ Hot Work	41.	☒ Grinding	42.	☐ Sharp Edges
43.	☐ Security	44.	☒ Heavy equipment	45.	☐ Overhead Work
46.	☒ Body Position	47.	☒ Congested Area	48.	☐ Lifting
49.	☒ Housekeeping	50.	☒ Wind	51.	☐ Rotating Equipment
52.	☐ Static Posture	53.	☒ Underground Utility	54.	☐ Slopes and Terrain
55.	☐ Spills	56.	☒ Ground Disturbance	57.	☐ Rigging
58.	☐ Confined Space	59.	☒ Repetitive Motion	60.	☐ Container/Drum Labels
61.	☒ Vehicle Safety - Driving	62.	☒ Hand & Power Tools	63.	☐ Fitness to Work
64.	☐ Waste	65.	☒ Heat/Cold Stress	66.	☐ Exposure to poisonous plants / animals / bugs
67.	☐ Open Pipe	68.	☐ Lighting	69.	☐ Other:
70.	☐ Boom Swing	71.	☒ Auger/Drill Stem	72.	☐ Other:
Required Safety Precautions					
79.	☒ Safety Glasses	80.	☐ Goggles	81.	☐ Face Shield
82.	☒ Hard Hat	83.	☐ Escape Pak	84.	☒ Ear Plugs
85.	☐ FRC	86.	☐ Supplied Air	87.	☐ Ear Muffs
88.	☐ Fire Watch	89.	☐ Drip Pans	90.	☐ Topical Creams / Repellants
91.	☐ Barricade	92.	☐ Fire Blanket	93.	☐ Plastic Sheeting
94.	☐ Flag Off Area	95.	☐ Life Lines	96.	☐ Vac Truck
97.	☐ Seal Manholes, Sewers, and Catch Basins	98.	☐ Upwind Areas Checked	99.	☐ Fall Protection
100.	☐ Continuous Monitoring	101.	☐ Fire Extinguisher at Jobsite	102.	☐ Warning Signs
103.	☐ Tag Lines	104.	☒ Communication Method	105.	☐ Sampling Prohibited
106.	☐ Fence Off Area	107.	☐ Wet Down Area	108.	☐ Welding Shields
109.	☐ Active Site Hazard Communication	110.	☐ Ladder Tie Off	111.	☐ Other:
112.	☐ Other:				
REQUIRED PROCEDURES					
☒ Drilling ☐ MOC ☐ Traffic Control ☐ LO/TO/Blinding ☐ Hoist/Lifting ☒ Journey Hazard Assessment					
REQUIRED PERMITS					
☐ Hot Work ☒ Ground Disturbance ☐ Confined Space ☐ Working from Heights ☐ None					
Contractor(s) / Employee(s) Signatures: I have reviewed and understand the conditions of this permit, and its attachments. I will report hazardous conditions or acts identified on this job site to my supervisor and / or BP representative so they can be corrected as necessary.			1. Mackie Waniwona 2. M... 3. ... 4. ... 5. ... 6. ... 7. ... 8. ... 9. ... 10. ... 11. ... 12. ...		
Onsite Project Manager: BT		Date: 7-7-11		Location of Site Work: Seatac	
Site 2611255		Date/Time Issued: 7:00 am/pm		Date/Time Expires: 7:00 am/pm	
☒ Is HASP onsite?		☒ Is ERP onsite?		☒ Is TSA onsite?	
Authorization Signature:					



anteagroup

FIELD ACTIVITY LOG

BEGINNING ODOMETER: 14809		DATE: 7-19-11	
ENDING ODOMETER: 14854		PROJECT NUMBER: 2611255	
FIELD ACTIVITY SUBJECT: Well Development		RECORDED BY: DR	REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:	
700	DR arrive onsite. Sign HASP & mobilize gear		
730	Set up on AS-1; Poor flow rate		
800	Set up on MW-16; Poor Flow - Surged & pulled up 6-8 inches of 2x12 sand w/ block.		
845	Bottom is now 32.82; only barely a flow @ MW-16		
	Continue on MW-16 & AS-1; add water to help flush		
1010	MW-16 TD now = 32.93, still soft bottom but little sand recovered any more		
1030	Demobe MW-16 & AS-1; using added water was able to flush out sand & silt from both. Total 18 gallons		
1045	Setup & gauge AS-2 & MW-17; start pumping - decent volume out of MW-17; still poor flow ↳ Screen SUNK?? called MM		
1145	Lunch break		
1210	Continue develop & purge water. Had to add water to AS-2 & MW-17 to develop.		
1330	Demobe supplies		
WEATHER CONDITIONS: 65° sun		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED Ø	
AMBIENT AIR MONITORING: Ø			
VISITORS ONSITE: Ø			
ANTEA GROUP PERSONNEL ONSITE: DR			
		TELEPHONE CALLS: Megan Mac - MW-17 sunk screen	



CLIENT: COP ELT

PAGE 1 of 1

DATE: ~~7-19-11~~ 7-19-11

WEATHER: 65° Sun

System Instructions:	Remedial System On-Site (Y / N) ?	Comments:
	Operational Upon Arrival (Y / N) ?	Comments:
	Shut Down System 1 / 24 hours before gauging (Y / N) ?	Time/Date Downed:
	Re-Start System (Y / N) ?	Time/Date Restarted:
	Purge Method:	Comments:

Facility/Location:

\\Deltaseattle\\belred drive\\Antea Group\\Field Notes\\Original Form Spreadsheet\\GW Sampling Field Sheet



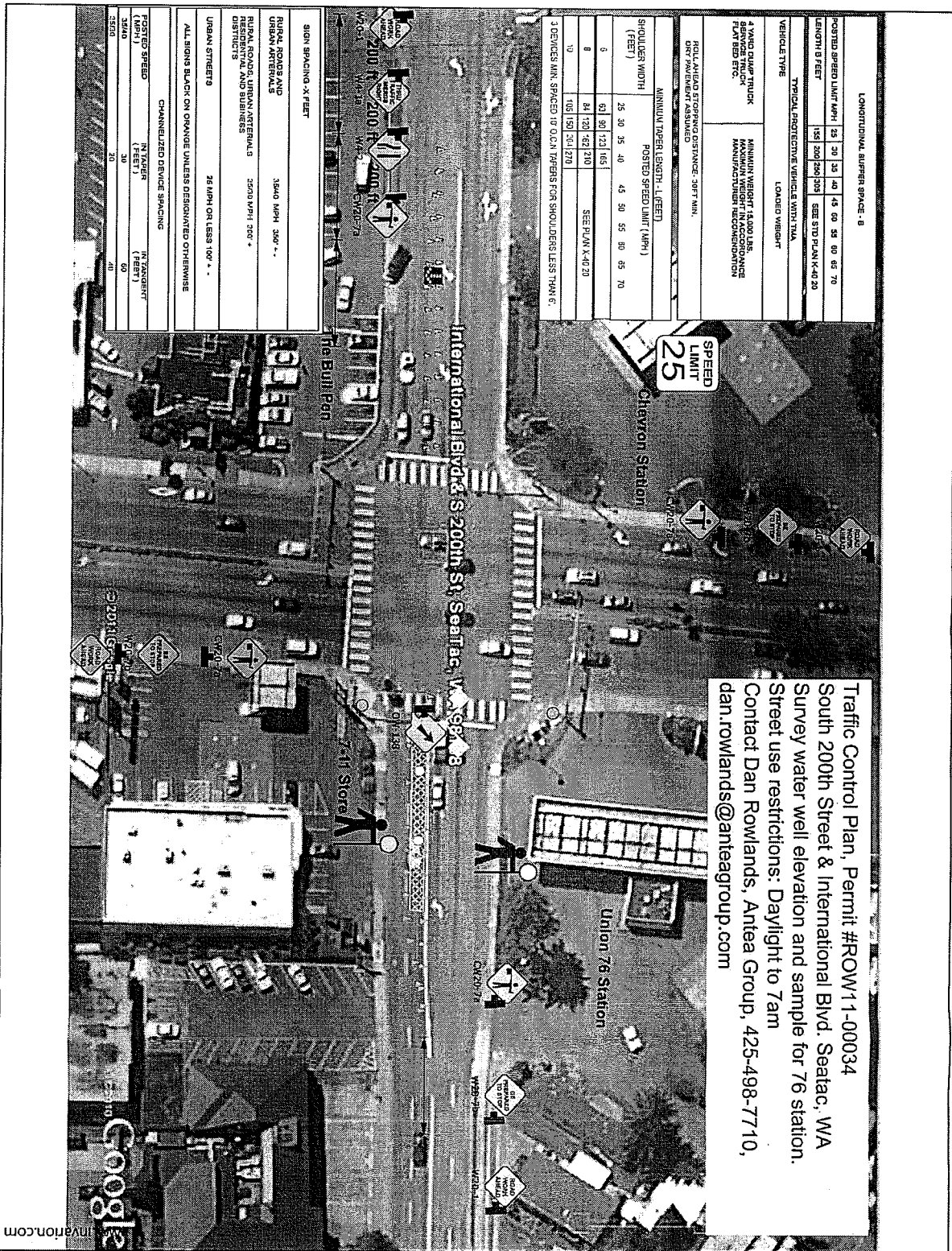
FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 8-16-11
ENDING ODOMETER:		PROJECT NUMBER: 2611255
FIELD ACTIVITY SUBJECT: Sample wells in street & Survey elevations		RECORDED BY: DR REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
530	ANTEA's DR, BT, TB & MM arrive onsite. Review work plan & safety docs.	
545	Prep Sampling equipment	
600	Altus arrives late onsite	
	↳ sets up traffic control	
620	Start sampling - low flow not effective because GW depth. Switch to bailers	
	purge & sample	
640	Finish sampling. Complete survey of well elevations.	
645	Demob traffic control	
715	offsite	
WEATHER CONDITIONS: 65 - sunrise		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING: Ø		
VISITORS ONSITE: Ø		
ANTEA GROUP PERSONNEL ONSITE: DR + BT + TB + MM		
		TELEPHONE CALLS: Altus @ 5:50



***** ATTACH SITE PLAN TO THIS SHEET *****

\\Deltaseattle\\belred drive\\Antea Group\\Field Notes\\Original Form Spreadsheet\\Monitoring Well Survey Form



Traffic Control Plan, Permit #ROW11-00034
 South 200th Street & International Blvd. Seattle, WA
 Survey water well elevation and sample for 76 station.
 Street use restrictions: Daylight to 7am
 Contact Dan Rowlands, Antea Group, 425-498-7710,
 dan.rowlands@anteagroup.com

LONGITUDINAL BUFFER SPACE - 8									
POSTED SPEED LIMIT (MPH)		25	30	35	40	45	50	55	60
LENGTH (FEET)		151	200	250	309	SEE STD PLAN K-40-20			
TYPICAL PROTECTIVE VEHICLE WITH TMA									
VEHICLE TYPE		LOADED WEIGHT							
1 WIND DRUM TRUCK		MINIMUM WEIGHT 14,000 LBS.							
FLY BED ETC.		MANUFACTURER RECOMMENDATION							
ROLL-AWAY STOPPING DISTANCE - 30 FT MIN.									
DRY PAVEMENT ASSUMED									
MINIMUM TAPER LENGTH - L (FEET)									
SHOULDER WIDTH (FEET)		25	30	35	40	45	50	55	60
0		60	80	120	165				
8		84	120	162	210	SEE PLAN K-40-20			
10		105	150	191	270				
3 DEVICES MIN. SPACED TO 10 FT TAPERS FOR SHOULDER LESS THAN 6'									

RURAL ROADS AND URBAN ARTERIALS		3540 MPH 300' +
RURAL MODERATE URBAN ARTERIALS		2550 MPH 300' +
DISTRICTS		
URBAN STREETS		25 MPH OR LESS 100' +
ALL SIGNS BLACK ON ORANGE UNLESS DESIGNATED OTHERWISE		
CHANNELIZED DEVICE SPACING		
POSTED SPEED	N TAPER (FEET)	N TANGENT (FEET)
25	30	50
30	30	50
35	30	50

SIGN SPACING X-FEET	
RURAL ROADS AND URBAN ARTERIALS	3500 MPH 300' +
RURAL ROADS, URBAN ARTERIALS AND BUSINESS DISTRICTS	3500 MPH 300' +
URBAN STREETS	25 MPH OR LESS 100' +
ALL SIGNS BLACK ON ORANGE UNLESS DESIGNATED OTHERWISE	
CHANNELIZED DEVICE SPACING	
POSTED SPEED (MPH)	IN TAPER
3500	30
3500	50
3500	20
3500	40

SITE COPY

RECEIVED
 8 ATT

CMK
 8/9/11

ROW11-00034

CITY OF SEATAC
REIMBURSEMENT AUTHORIZATION AND APPROVAL TO CONDUCT
CONSTRUCTION ACTIVITIES DURING OFF HOURS

Date: 8-9-11 Permit: ROW11-00034 Is Noise Variance required? NO

Requested by: Bryan Taylor

Firm/Company: ANTEA GROUP

→ Special Billing Instructions: Will deduct 1 hour from
9 1/2 banked balance per SS

Project Address/Scope of Work: Survey well elevations & collect
water samples in street.

Date of Off-Hours Construction Activity: 8-16-11

Time of Off-Hours Construction Activity From: 6:00 (am/pm) To: 07:00 (am/pm)

Phone No./Pager of Contact Person: Bryan Taylor - 425-260-9321

Special Conditions for Consideration: _____

The undersigned, as an authorized representative of the above listed firm, agrees to reimburse the City for its overtime inspection on the above referenced project.

Signature: [Signature]

Reviewed by: [Signature]

Approved [Signature] Disapproved _____

Reviewed by: [Signature]

Approved [Signature] Disapproved _____

REMARKS: _____

✓* Contractor will be charged a minimum of four (4) hours inspection time for any off-hours work to include weekends and holidays at \$97.50 per hour.

* Off-hours work (will/will not) be monitored by a City of SeaTac Public Works Inspector.

In case of a problem requiring the attention of Public Works call:

1st: Cary Kennedy 206.786.4825
Inspector Cellular # Home #

Or 2nd: City of SeaTac Engineering Division- Phone 206-973-4730

Or 3rd: 911

Distribution: Tom Gut Susan Sanderson Police Dept. Fire Dept.
Sean Clark File last revised 11-21-08

AUTHORIZATION FOR SPECIAL BILLING

DATE:

8-9-11

PROJECT NAME:

South 200th @ Int'l Blvd

PERMIT NUMBER:

ROW11-00034

CITY OF SEATAC PROJECT NUMBER:

It is the intent of this letter to authorize the City of SeaTac to bill the undersigned for all costs incurred relative to the referenced project and permit, by the City of SeaTac for the following work:

- INSPECTION TIME WILL BE BILLED AT THE RATE OF \$65.00 PER HOUR STANDARD HOURLY RATE AND \$97.50 PER HOUR OVERTIME, HOLIDAYS, AND WEEKENDS.
- TIME AND MATERIALS FOR ANY AND ALL ROAD CLEANUP EFFORTS PERFORMED BY CITY FORCES OR CITY CONTRACT.
- TIME AND MATERIAL FOR ANY WORK PERFORMED OR CONTRACTED BY CITY STAFF TO REPAIR DAMAGES OR ENFORCE COMPLIANCE WITH THE PERMIT CONDITIONS.

BILLING TO BE SENT TO:

(Please Print)

Name:

Bryan Taylor

Company:

ANTEA GROUP

Address:

4006 148th AVE NE

REDMOND, WA 98052

Email:

bryan.taylor@anteagroup.com

Phone:

425-260-9321

Owner / Developer / Contractor or Authorized Agent



FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 9-19-11	
ENDING ODOMETER:		PROJECT NUMBER: 2611255	
FIELD ACTIVITY SUBJECT: 3Q11 GWS		RECORDED BY: DR	REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:	
840	Arrive onsite. Check in with store clerk. Mobilize sampling gear.		
915	Start sampling all wells on station property		
	- collected MNA parameters from MW-10, 3, 6, 7		
	- DUP @ MW-1		
1145	Lunch Break		
1540	Finished Sampling. Demobe		
1545	Offsite to LAB to drop samples		
WEATHER CONDITIONS: 65		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED	
AMBIENT AIR MONITORING:			
VISITORS ONSITE:			
ANTEA GROUP PERSONNEL ONSITE: DRAM			
		TELEPHONE CALLS:	



GROUNDWATER SAMPLING FIELD SHEET

PROJECT NUMBER: 2611255
 SITE No./JOB No.: _____
 SITE ADDRESS/LOCATION: 19925 Int'l Blvd, Seatac
 FIELD PERSONNEL: DR & MM

CLIENT: COP-ELT
 PAGE: 1 of 2
 DATE: 9-19-11
 WEATHER: 60 SUN

Well ID	Time	Well Diameter (in.)	Depth to Bottom (feet)	Depth to Water (feet)	Depth to LPH (feet)	LPH Thickness (feet)	Calc. Purge (gal)	Actual Purge (gal)	Purge Method (B/LF/P)	Dissolved Oxygen (mg/l)	Sample Appearance/ Comments
MW 1	15:00	4		26.31					LF		DUP
MW 2											
MW 3	15:30	4		25.97					LF		MNA
MW 4	10:40	4		30.00					B		Highly turbid
MW 5	9:20	4		19.85					LF		
MW 6	14:00	4		28.42					LF		MNA
MW 7	12:30	4		27.29					LF		MNA
MW 8	11:00	4		47.00					B		
MW 9	13:30	2		28.60					LF		QC
MW 10	13:00	2		27.90					LF		MNA
MW 11	10:20	2		26.87					LF		
MW 12	10:00	2		26.42					LF		
MW 13	9:40	2		26.37					LF		
MW 16	11:20	2		27.82					LF		
MW 17	14:30	2		28.4 28.47					LF		DTW=28.47

System Instructions:	Remedial System On-Site (Y / <u>N</u>) ?	Comments:
	Operational Upon Arrival (Y / <u>N</u>) ?	Comments:
	Shut Down System 1 / 24 hours before gauging (Y / N) ?	Time/Date Downed:
	Re-Start System (Y / N) ?	Time/Date Restarted:
	Purge Method:	Comments:

Purge Water Disposal Method:

☐ Treated through mobile carbon treatment unit and discharged on-site
☒ Placed in drums on site
☐ Transported off-site for treatment

No. of drums: _____

Facility/Location: _____

Measuring Device(s): Solinst Interface Probe



anteagroup

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2
Cooler # 4

Peace Analytical
www.peaceanalysis.com

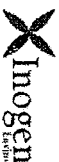
Required Lab Information:				Required Project Information:				Required Invoice Information:			
Lab Name: Peace Seattle	Site ID #: 2611255	Task: WG_S_201108	Send Invoice to:	Address:	City/State:	Phone #:	Turn around time (days): 10	QC level Required: Standard	Y	Special:	Mark one
Address: 940 S Haney Drive Seattle WA	Delta project # 2611255	Site Address: 1924 INTERNATIONAL BLVD	City/State:	City/State:	Reimbursement project?	Non-reimbursement project?	Y	MA MCP Cert?	CT RCP Cert?	Mark One	
Lab PM: Regina Sie Marie	City: SEATAC	State: WA	Phone/Fax: P: 206-957-2427 F:	Delta PM Name: Bryan Taylor	Send EDD to: copeldata@intelligence.com	CC Hardcopy report to: bryan.taylor@anteagroup.com	Lab Project ID (lab use):				
Applicable Lab Quote #:	Delta PM Email: bryan.taylor@anteagroup.com	CC Hardcopy report to:									
ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 /) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives	Analyses	Comments/Lab Sample ID.	
1	DUP12 20110813	WG	G	9-19-11	15:06	8	N	Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₈ Methanol Other	6010LeadTotal 8200BTEX NWTPH-DX-W/SilicaGe NWTPH-Gx		
2	MMW-1 20110813	WG			13:00	18					
3	MMW-10 20110813	WG			10:20	8					
4	MMW-11 20110813	WG			10:00	8					
5	MMW-12 20110813	WG			9:46	8					
6	MMW-13 20110813	WG									
7	MMW-14 20110813	WG									
8	MMW-15 20110813	WG			11:20	8					
9	MMW-16 20110813	WG			14:30	8					
10	MMW-17 20110813	WG			15:30	18					
11	MMW-3 20110813	WG									
12	TB1 20110813	W									

Additional Comments/Special Instructions: (Fe, Pb, Mn)
MMA Parameters = Total Metals,
dissolved Metals, NiV, CO₂,
BOD, TOC, Methanethane/ethane
Alkalinity, Sulfate.

RELINQUISHED BY / AFFILIATION: Megan Macdonald 9-19-11 1600
ACCEPTED BY / AFFILIATION: Debra Wauke/PC/E 9-19-11 1600

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX
PRINT Name of SAMPLER: Megan Macdonald
SIGNATURE of SAMPLER: [Signature]
DATE Signed: 9-19-11 Time: 16:00

Temp in °C: _____
Samples on Ice? Y/N
Sample intact? Y/N
Trip Blank? Y/N



Imogen
Environmental Solutions



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

 Page: 2 of 2
 Cooler # 1 of 1

 Pace Analytical
 www.paceanalytics.com

Required Lab Information:

Lab Name: Pace-Seattle

Site ID #: 2611255 Task: WG_S_201108

Send Invoice to:

Turn around time (days) 10

Special Mark one

Required Project Information:

Address: Delta project # I42011255

Address:

QC level Required: Standard Y

Mark one

Required Invoice Information:

Site Address: 19924 INTERNATIONAL BLVD

City/State:

Phone #:

Mark one

Required Lab Information:

Lab PM: Regina Sie Marie

City: SEATAC State: WA

Reimbursement project? Y

Mark one

Required Project Information:

Phone/Fax: P: 206-957-2427 F:

Delta PM Name: Bryan Taylor

Send EDD to: copelidata@itellgentils.com

Mark One

Required Lab Information:

Lab PM email:

Phone/Fax: P: 425-882-3528 F:

CC Hardcopy report to: bryan.taylor@anteagroup.com

Mark One

Required Project Information:

Applicable Lab Quote #:

Delta PM Email: bryan.taylor@anteagroup.com

CC Hardcopy report to:

Mark One

3	MMW-6_20110813	WG	—	14:00	18												X	X	
4	MMW-7_20110813	WG	—	12:30	18												X	X	
5	MMW-8_20110813	WG	—	10:00	8												X	X	
6	MMW-9_20110813	WG	↓	13:30	10												X	X	
7	TB2_20110813	W	—	13:30													X	X	
8																			
9																			
10																			
11																			
12																			

ac

Additional Comments/Special Instructions:

RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions	
Pace Analytical		9-14-11	6:00	Pace Analytical		9-14-11	6:00	Temp in °C	Y/N
Pace Analytical		9-14-11	6:00	Pace Analytical		9-14-11	6:00	Samples on Ice?	Y/N
Pace Analytical		9-14-11	6:00	Pace Analytical		9-14-11	6:00	Sample intact?	Y/N
Pace Analytical		9-14-11	6:00	Pace Analytical		9-14-11	6:00	Trip Blank?	Y/N

Appendix C

Waste Manifest Documentation



SHIPPING PAPER

Lading Manifest: 311053-10

SHIPPER / CUSTOMER BP STATION # 11255		DELIVERY DATE	JOB # 1183643
ADDRESS 19924 PACIFIC AVE SOUTH		POINT OF CONTACT JIM COPPERNOLL	
CITY, STATE, ZIP SEATAC WA 98148		PHONE # (425) 350-7645	
CARRIER / TRANSPORTER BURLINGTON ENVIRONMENTAL, LLC		PHONE # (253) 383-3044	
CONSIGNEE / FACILITY BURLINGTON ENVIRONMENTAL, LLC.		POINT OF CONTACT	
ADDRESS 20245 77TH AVENUE SOUTH		PHONE # (253) 872-8030	
CITY, STATE, ZIP KENT, WA 98032			

HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers No.	Type	Total Quantity	UOM
A	NON HAZARDOUS, NON-DOT REGULATED (SOIL)	13	DM	10,400	P
B	NON-HAZARDOUS LIQUID (DECON WATER)	3	DM	165	G
C					
D					

Special Handling Instruction and Additional Information:

a) 425995-00 - NON HAZ SOIL - LF01 STAB01 (1) b) 425996-00 - NON HAZ DECON WATER - STAB01 WAT05 (2)

Placards Provided YES _____ NO _____

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

SHIPPER PRINT OR TYPE NAME Don Rowlands	SIGNATURE X [Signature]	MONTH 8	DAY 12	YEAR 10
CARRIER/TRANSPORTER PRINT OR TYPE NAME Mark Bowman	SIGNATURE X [Signature]	MONTH 8	DAY 12	YEAR 10
CONSIGNEE/FACILITY PRINT OR TYPE NAME Cody Weedin	SIGNATURE X [Signature]	MONTH 8	DAY 12	YEAR 10

CONSIGNEE

'10 AUG 12 PM 12:12



FIELD ACTIVITY LOG

Beginning Odometer:		DATE: 2-16-11	
Ending Odometer:		PROJECT NUMBER: 2611255	
FIELD ACTIVITY SUBJECT: Vac Water Drum & remove		RECORDED BY: DR	REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:	
1000	Arrived onsite. Safety Meeting with Steve - PSC		
1025	- Vac Drum - Gauge MW-7, no product present in well = no vacuum		
1030	Demobe & offsite		
		0 drums remain	
WEATHER CONDITIONS: 45 sun		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED 0	
AMBIENT AIR MONITORING: 0			
VISITORS ONSITE: Steve - PSC			
ANTEA GROUP PERSONNEL ONSITE: DR			
		TELEPHONE CALLS: 0	



***24 HOUR EMERGENCY RESPONSE, CALL (877) 577-2669 ***

SHIPPING PAPER

Lading Manifest: 410948-11

SHIPPER / CUSTOMER BP STATION # 11255		DELIVERY DATE	JOB # 1273472
ADDRESS 19924 PACIFIC AVE SOUTH		POINT OF CONTACT JIM COPPERNOLL	
CITY, STATE, ZIP SEATAC WA 98148		PHONE # (425) 350-7645	
CARRIER / TRANSPORTER BURLINGTON ENVIRONMENTAL, LLC		PHONE # (253) 383-3044	
CONSIGNEE / FACILITY BURLINGTON ENVIRONMENTAL, LLC.		POINT OF CONTACT	
ADDRESS 20245 77TH AVENUE SOUTH		PHONE # (253) 872-8030	
CITY, STATE, ZIP KENT, WA 98032			

HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers		Total Quantity	UOM
		No.	Type		
A	MATERIAL NOT REGULATED BY D.O.T.	1	TT	45	G
B					
C					
D					

Special Handling Instruction and Additional Information:

a) 165650-09 - WASHINGTON STATE, PURGE WATER FROM GROUND WATER MONITORING WELLS - NON REGULATED - STAB01 STAB01 WAT05 WAT05 WAT06 WAT07 (1)

Placards Provided YES _____ NO _____

SHIPPER'S CERTIFICATION: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations." I also certify that all times listed above are true and correct.

(SHIPPER) PRINT OR TYPE NAME X <i>Jim Coppernoll</i>	SIGNATURE X <i>[Signature]</i>	MONTH 2	DAY 11	YEAR 11
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME X <i>Steve Allen</i>	SIGNATURE X <i>[Signature]</i>	MONTH 2	DAY 16	YEAR 11
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME X	SIGNATURE X	MONTH	DAY	YEAR

SHIPPER



PNW - ESG - TRANSPORTATION GROUP

☐ RESOURCE RECOVERY 1629 East Alexander Ave., Tacoma WA 98421 (253) 383-3044
☒ BEI PUGET SOUND 1629 East Alexander Ave., Tacoma WA 98421 (253) 383-3044

BILL OF LADING

DATE 2-16-11	BEGINNING MILEAGE 65577	ON DUTY 10:00	AM PM
DRIVER NAME Steve Cleary	ENDING MILEAGE	OFF DUTY	AM PM
VEHICLE NO. 6000	TRAILER NO.	BOX NO.	COST CENTER 8000
SHIPPER / ORIGIN NAME BP Station # 11255		WEIGH INFORMATION GROSS	
ADDRESS 19924 Pacific Ave. S.		TARE	
CITY Seatac STATE WA ZIP 98148		NET	
QUANTITY		DOT PROPER SHIPPING NAME	
45 gallon per manifest # 410948			
		PLEASE PAY THIS AMOUNT →	

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation.

☒ **DATE** **2-16-11**

DESTINATION

NAME BE Kent	RECEIPT #
ADDRESS	
CITY Kent	STATE WA ZIP 98032
VEHICLE NO. 6000	TRAILER NO.
DATE	
☒ LOADED	☐ UNLOADED
☐ RINSED	

☐ TACOMA 1701 E. Alexander Ave., Tacoma, WA 98421 (253) 627-7568
☐ WASHOUGAL 625 South 32nd St. (P.O. Box 229) Washougal, WA 98671 (360) 835-8594
☒ KENT 20245 77th Ave. S., Kent, WA 98032 (253) 872-7859

ARRIVAL TIME:

LOAD TIME: START:	AM PM	____ HRS. FREE TIME	UNLOAD TIME: START:	AM PM	____ HRS. FREE TIME
FINISH:	AM PM	____ HRS. CHARGEABLE	FINISH:	AM PM	____ HRS. CHARGEABLE

REASON FOR LOAD DELAY:

REASON FOR LOAD DELAY:

SIGNATURE FOR DELAY:

SIGNATURE FOR DELAY:

DRIVER SIGNATURE **Steve Cleary**

COMMENTS:



24 HOUR EMERGENCY RESPONSE, CALL (877) 577-2669

SHIPPING PAPER

Lading Manifest: 492477-11

SHIPPER / CUSTOMER		DELIVERY DATE	JOB #
BP STATION # 11255		POINT OF CONTACT	1346728
ADDRESS		JIM COPPERNOLL	
19924 PACIFIC AVE SOUTH		PHONE #	(425) 350-7645
CITY, STATE, ZIP			
SEATAC WA 98148		PHONE #	
CARRIER / TRANSPORTER		(253) 383-3044	
BURLINGTON ENVIRONMENTAL, LLC		POINT OF CONTACT	
CONSIGNEE / FACILITY		PHONE #	
BURLINGTON ENVIRONMENTAL, LLC		(253) 872-8030	
ADDRESS			
20245 77TH AVENUE SOUTH			
CITY, STATE, ZIP			
KENT WA 98032			

ITEM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers No.	Type	Total Gross Wt.	UOM
A	NON-HAZARDOUS, NON-DOT REGULATED (SOIL)	12	DM		P
B	MATERIAL NOT REGULATED BY DOT	13	DM		G
C					
D					

Special Handling Instruction and Additional Information:

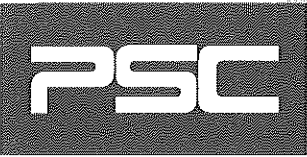
a) 425995-01 - NON HAZ SOIL LFB01 STAB01 LFB01 (1) b) 165650-10 - WASHINGTON STATE, PUMP AND TESTER FROM GROUND WATER MONITORING WELLS - NON-REGULATED STAB01 VAT05 VAT05 VAT05 VAT05 (3)

Picards Provided ☒ YES ☐ NO

SHIPPER CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I also certify that all times listed above are true and correct.

(SHIPPER) PRINT OR TYPE NAME	SIGNATURE	MONTH	DAY	YEAR
X JASBIR SINGH	X [Signature]	12	05	11
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME	SIGNATURE	MONTH	DAY	YEAR
X	X			
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME	SIGNATURE	MONTH	DAY	YEAR
X	X			

CONSIGNEE



24 HOUR EMERGENCY RESPONSE, CALL (877) 577-2669

SHIPPING PAPER

Loading Manifest: 617772-12

SHIPPER / CUSTOMER SEAPAC 76 # 11255		DELIVERY DATE		JOB # 1458785	
ADDRESS 19924 PACIFIC AVE SOUTH		POINT OF CONTACT HARTINDBI SINCH			
CITY, STATE, ZIP SEAPAC WA 98148		PHONE #			
CARRIER / TRANSPORTER CASCADE DRILLING		PHONE # (425) 485-8908			
CONSIGNEE / FACILITY BURLINGTON ENVIRONMENTAL, LLC.		POINT OF CONTACT			
ADDRESS 20245 77TH AVENUE SOUTH		PHONE # (253) 872-8030			
CITY, STATE, ZIP KENT, WA 98032					
HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers No.	Type	Total Quantity	UOM
A	HATCHING EGG REGULATED BY U.S.T.	14	DR	5,600	P
B					
C					
D					

Special Handling Instruction and Additional Information:

AT 532745-00 - SOIL FROM USE CORRECTIVE ACTION - LPO1 (1)

Placards Provided YES _____ NO _____

SHIPPER'S CERTIFICATION: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations." I also certify that all times listed above are true and correct.

(SHIPPER) PRINT OR TYPE NAME X <i>Bryan Taylor</i>	SIGNATURE X <i>Bryan Taylor</i>	MONTH 3	DAY 28	YEAR 12
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME X <i>Don Rowlands</i> AS AGENT OF PCIF	SIGNATURE X <i>Don Rowlands</i>	MONTH 3	DAY 28	YEAR 12
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME X <i>Sören Johann</i>	SIGNATURE X <i>Sören Johann</i>	MONTH 03	DAY 28	YEAR 12

SHIPPER



24 HOUR EMERGENCY RESPONSE, CALL (877) 571-2669 ***

SHIPPING PAPER

Lading Manifest: 617773-12

SHIPPER / CUSTOMER SEATAC 76 # 11255		DELIVERY DATE		JOB # 1458485	
ADDRESS 19924 PACIFIC AVE SOUTH		POINT OF CONTACT HARTFORD STACH			
CITY, STATE, ZIP SEATAC WA 98148		PHONE #			
CARRIER / TRANSPORTER CASCADE DRILLING		PHONE # (425) 485-8908			
CONSIGNEE / FACILITY BURLINGTON ENVIRONMENTAL, LLC		POINT OF CONTACT			
ADDRESS 26245 77TH AVENUE SOUTH		PHONE # (253) 872-8030			
CITY, STATE, ZIP KENT, WA 98032					
HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers No. Type		Total Quantity	UOM
A	MATERIAL NOT REGULATED BY DOT	1	DM	600	G
B					
C					
D					

Special Handling Instruction and Additional Information:

1) 532764-00 - PURGE WATER WITH BENZENE - MAY65 (2)

Placards Provided YES _____ NO _____

SHIPPER'S CERTIFICATION: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations." I also certify that all times listed above are true and correct.

(SHIPPER) PRINT OR TYPE NAME X Bryan Lyle	SIGNATURE X [Signature]	MONTH 3	DAY 28	YEAR 12
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME X Dan Rowland	SIGNATURE X [Signature]	MONTH 3	DAY 28	YEAR 12
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME X Susan Johann	SIGNATURE X [Signature]	MONTH 03	DAY 28	YEAR 12

SHIPPER

Appendix D

Analytical Laboratory Reports and Chain-of-Custody Documentation

June 29, 2010

Bryan Taylor
Delta Consultants
4006 148th Ave. NE
Redmond, WA 98052

RE: Project: 2611255
Pace Project No.: 253984

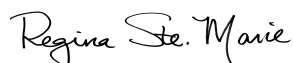
Dear Bryan Taylor:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Samples 002, 004, 005, 007 were received with no visible methanol in the Gx containers. With client approval, Pace extruded and preserved soil from an unpreserved jar for Gx more than 48 hours after collection.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Nasrin Bastami, Delta Consultants
Thuan Bui, ELT_Delta Consultants, Washing
Eric Larsen, Delta Consultants
Megan MacDonald, ELT_Delta Consultants, Washing
Joe Rounds, Delta Environmental

Dan Rowlands, ELT_Delta Consultants, Washing
Hitomi Somics, Delta Consultants

REPORT OF LABORATORY ANALYSIS

Page 1 of 26

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CERTIFICATIONS

Project: 2611255

Pace Project No.: 253984

Washington Certification IDs

940 South Harney Street Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01-09

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

REPORT OF LABORATORY ANALYSIS

Page 2 of 26

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SAMPLE ANALYTE COUNT

Project: 2611255
Pace Project No.: 253984

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
253984001	MW-13-20@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984002	MW-13-25@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984003	MW-13-30@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984004	MW-13-35@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984005	MW-12-20@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984006	MW-12-25@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984007	MW-12-30@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984008	MW-11-20@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984009	MW-11-25@20100617	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253984010	MW-11-30@20100617	NWTPH-Gx	LPM	3	PASI-S

REPORT OF LABORATORY ANALYSIS

Page 3 of 26

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 253984

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
253984011	MW-11-32@20100617	EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
		NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
253984012	Trip Blank@20100617	EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
		NWTPH-Gx	LPM	3	PASI-S
		EPA 8260	LPM	8	PASI-S

REPORT OF LABORATORY ANALYSIS

Page 4 of 26

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253984

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: ELT_Delta Consultants, Washington

Date: June 29, 2010

General Information:

12 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

Analyte Comments:

QC Batch: GCV/1607

1n: Extraction conducted outside of 48-hours from date of collection.

- DUP (Lab ID: 31519)
 - Gasoline Range Organics
- MW-12-20@20100617 (Lab ID: 253984005)
 - Gasoline Range Organics

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253984

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: ELT_Delta Consultants, Washington

Date: June 29, 2010

Analyte Comments:

QC Batch: GCV/1607

1n: Extraction conducted outside of 48-hours from date of collection.

- MW-12-30@20100617 (Lab ID: 253984007)
 - Gasoline Range Organics
- MW-13-25@20100617 (Lab ID: 253984002)
 - Gasoline Range Organics
- MW-13-35@20100617 (Lab ID: 253984004)
 - Gasoline Range Organics

QC Batch: GCV/1630

1n: Extraction conducted outside of 48-hours from date of collection.

- DUP (Lab ID: 31715)
 - Gasoline Range Organics
- MW-13-30@20100617 (Lab ID: 253984003)
 - Gasoline Range Organics

REPORT OF LABORATORY ANALYSIS

Page 6 of 26

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253984

Method: EPA 6010

Description: 6010 MET ICP

Client: ELT_Delta Consultants, Washington

Date: June 29, 2010

General Information:

11 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Page 7 of 26

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253984

Method: EPA 8260

Description: 8260/5035A Volatile Organics

Client: ELT_Delta Consultants, Washington

Date: June 29, 2010

General Information:

12 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

Page 8 of 26

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253984

Sample: MW-13-20@20100617 Lab ID: 253984001 Collected: 06/17/10 10:00 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	4.6	1	06/24/10 09:00	06/24/10 16:02		
a,a,a-Trifluorotoluene (S)	114	%	50-150	1	06/24/10 09:00	06/24/10 16:02	98-08-8	
4-Bromofluorobenzene (S)	98	%	50-150	1	06/24/10 09:00	06/24/10 16:02	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.3	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:05	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.5	1		06/23/10 17:54	71-43-2	
Ethylbenzene	ND	ug/kg	2.5	1		06/23/10 17:54	100-41-4	
Toluene	ND	ug/kg	2.5	1		06/23/10 17:54	108-88-3	
Xylene (Total)	ND	ug/kg	7.5	1		06/23/10 17:54	1330-20-7	
Dibromofluoromethane (S)	88	%	80-136	1		06/23/10 17:54	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/23/10 17:54	2037-26-5	
4-Bromofluorobenzene (S)	89	%	72-122	1		06/23/10 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	80-143	1		06/23/10 17:54	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	10.2	%	0.10	1		06/23/10 21:21		

Sample: MW-13-25@20100617 Lab ID: 253984002 Collected: 06/17/10 10:15 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	5.6	1	06/24/10 06:00	06/25/10 14:54		1n
a,a,a-Trifluorotoluene (S)	60	%	50-150	1	06/24/10 06:00	06/25/10 14:54	98-08-8	
4-Bromofluorobenzene (S)	57	%	50-150	1	06/24/10 06:00	06/25/10 14:54	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.9	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:13	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.7	1		06/23/10 18:13	71-43-2	
Ethylbenzene	ND	ug/kg	2.7	1		06/23/10 18:13	100-41-4	
Toluene	ND	ug/kg	2.7	1		06/23/10 18:13	108-88-3	
Xylene (Total)	ND	ug/kg	8.0	1		06/23/10 18:13	1330-20-7	
Dibromofluoromethane (S)	86	%	80-136	1		06/23/10 18:13	1868-53-7	
Toluene-d8 (S)	101	%	80-120	1		06/23/10 18:13	2037-26-5	
4-Bromofluorobenzene (S)	91	%	72-122	1		06/23/10 18:13	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	80-143	1		06/23/10 18:13	17060-07-0	

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253984

Sample: MW-13-25@20100617 **Lab ID:** 253984002 Collected: 06/17/10 10:15 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	8.6	%	0.10	1		06/23/10 21:23		

Sample: MW-13-30@20100617 **Lab ID:** 253984003 Collected: 06/17/10 10:30 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.6	1	06/28/10 12:00	06/28/10 20:06		1n
a,a,a-Trifluorotoluene (S)	73	%	50-150	1	06/28/10 12:00	06/28/10 20:06	98-08-8	
4-Bromofluorobenzene (S)	68	%	50-150	1	06/28/10 12:00	06/28/10 20:06	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.0	mg/kg	1.0	1	06/21/10 17:08	06/25/10 20:16	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	3.0	1		06/25/10 15:34	71-43-2	
Ethylbenzene	ND	ug/kg	3.0	1		06/25/10 15:34	100-41-4	
Toluene	ND	ug/kg	3.0	1		06/25/10 15:34	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		06/25/10 15:34	1330-20-7	
Dibromofluoromethane (S)	87	%	80-136	1		06/25/10 15:34	1868-53-7	
Toluene-d8 (S)	98	%	80-120	1		06/25/10 15:34	2037-26-5	
4-Bromofluorobenzene (S)	88	%	72-122	1		06/25/10 15:34	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	80-143	1		06/25/10 15:34	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	12.4	%	0.10	1		06/23/10 21:24		

Sample: MW-13-35@20100617 **Lab ID:** 253984004 Collected: 06/17/10 10:45 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.5	1	06/24/10 06:00	06/25/10 15:17		1n
a,a,a-Trifluorotoluene (S)	59	%	50-150	1	06/24/10 06:00	06/25/10 15:17	98-08-8	
4-Bromofluorobenzene (S)	58	%	50-150	1	06/24/10 06:00	06/25/10 15:17	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.5	mg/kg	0.96	1	06/21/10 17:08	06/25/10 20:19	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.4	1		06/24/10 13:37	71-43-2	

Date: 06/29/2010 05:45 PM

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253984

Sample: MW-13-35@20100617 Lab ID: 253984004 Collected: 06/17/10 10:45 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Ethylbenzene	ND	ug/kg	2.4	1		06/24/10 13:37	100-41-4	
Toluene	ND	ug/kg	2.4	1		06/24/10 13:37	108-88-3	
Xylene (Total)	ND	ug/kg	7.1	1		06/24/10 13:37	1330-20-7	
Dibromofluoromethane (S)	90	%	80-136	1		06/24/10 13:37	1868-53-7	
Toluene-d8 (S)	90	%	80-120	1		06/24/10 13:37	2037-26-5	
4-Bromofluorobenzene (S)	82	%	72-122	1		06/24/10 13:37	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	80-143	1		06/24/10 13:37	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	9.9	%	0.10	1		06/23/10 21:25		

Sample: MW-12-20@20100617 Lab ID: 253984005 Collected: 06/17/10 11:45 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	5.3	1	06/24/10 06:00	06/25/10 06:45		1n
a,a,a-Trifluorotoluene (S)	61	%	50-150	1	06/24/10 06:00	06/25/10 06:45	98-08-8	
4-Bromofluorobenzene (S)	71	%	50-150	1	06/24/10 06:00	06/25/10 06:45	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.1	mg/kg	0.99	1	06/21/10 17:08	06/25/10 20:22	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.4	1		06/24/10 13:56	71-43-2	
Ethylbenzene	ND	ug/kg	2.4	1		06/24/10 13:56	100-41-4	
Toluene	ND	ug/kg	2.4	1		06/24/10 13:56	108-88-3	
Xylene (Total)	ND	ug/kg	7.1	1		06/24/10 13:56	1330-20-7	
Dibromofluoromethane (S)	84	%	80-136	1		06/24/10 13:56	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/24/10 13:56	2037-26-5	
4-Bromofluorobenzene (S)	89	%	72-122	1		06/24/10 13:56	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	80-143	1		06/24/10 13:56	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.7	%	0.10	1		06/23/10 21:26		

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253984

Sample: MW-12-25@20100617 **Lab ID:** 253984006 Collected: 06/17/10 12:00 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	8.2	1	06/24/10 09:00	06/24/10 17:12		
a,a,a-Trifluorotoluene (S)	110	%	50-150	1	06/24/10 09:00	06/24/10 17:12	98-08-8	
4-Bromofluorobenzene (S)	96	%	50-150	1	06/24/10 09:00	06/24/10 17:12	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.4	mg/kg	1.0	1	06/21/10 17:08	06/25/10 20:25	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	3.0	1		06/24/10 14:15	71-43-2	
Ethylbenzene	ND	ug/kg	3.0	1		06/24/10 14:15	100-41-4	
Toluene	ND	ug/kg	3.0	1		06/24/10 14:15	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		06/24/10 14:15	1330-20-7	
Dibromofluoromethane (S)	84	%	80-136	1		06/24/10 14:15	1868-53-7	
Toluene-d8 (S)	96	%	80-120	1		06/24/10 14:15	2037-26-5	
4-Bromofluorobenzene (S)	90	%	72-122	1		06/24/10 14:15	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	80-143	1		06/24/10 14:15	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.1	%	0.10	1		06/23/10 21:27		

Sample: MW-12-30@20100617 **Lab ID:** 253984007 Collected: 06/17/10 12:15 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	6.3	1	06/24/10 06:00	06/25/10 05:58		1n
a,a,a-Trifluorotoluene (S)	63	%	50-150	1	06/24/10 06:00	06/25/10 05:58	98-08-8	
4-Bromofluorobenzene (S)	58	%	50-150	1	06/24/10 06:00	06/25/10 05:58	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.4	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:27	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	3.1	1		06/24/10 14:35	71-43-2	
Ethylbenzene	ND	ug/kg	3.1	1		06/24/10 14:35	100-41-4	
Toluene	ND	ug/kg	3.1	1		06/24/10 14:35	108-88-3	
Xylene (Total)	ND	ug/kg	9.3	1		06/24/10 14:35	1330-20-7	
Dibromofluoromethane (S)	83	%	80-136	1		06/24/10 14:35	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/24/10 14:35	2037-26-5	
4-Bromofluorobenzene (S)	92	%	72-122	1		06/24/10 14:35	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	80-143	1		06/24/10 14:35	17060-07-0	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 253984

Sample: MW-12-30@20100617 **Lab ID: 253984007** Collected: 06/17/10 12:15 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	18.6	%	0.10	1		06/23/10 21:27		

Sample: MW-11-20@20100617 **Lab ID: 253984008** Collected: 06/17/10 13:30 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	6.4	1	06/24/10 09:00	06/24/10 17:36		
a,a,a-Trifluorotoluene (S)	117	%	50-150	1	06/24/10 09:00	06/24/10 17:36	98-08-8	
4-Bromofluorobenzene (S)	100	%	50-150	1	06/24/10 09:00	06/24/10 17:36	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.2	mg/kg	1.0	1	06/21/10 17:08	06/25/10 20:36	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.5	1		06/24/10 14:54	71-43-2	
Ethylbenzene	ND	ug/kg	2.5	1		06/24/10 14:54	100-41-4	
Toluene	ND	ug/kg	2.5	1		06/24/10 14:54	108-88-3	
Xylene (Total)	ND	ug/kg	7.5	1		06/24/10 14:54	1330-20-7	
Dibromofluoromethane (S)	84	%	80-136	1		06/24/10 14:54	1868-53-7	
Toluene-d8 (S)	100	%	80-120	1		06/24/10 14:54	2037-26-5	
4-Bromofluorobenzene (S)	91	%	72-122	1		06/24/10 14:54	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	80-143	1		06/24/10 14:54	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	8.0	%	0.10	1		06/23/10 21:29		

Sample: MW-11-25@20100617 **Lab ID: 253984009** Collected: 06/17/10 13:40 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	6.6	1	06/24/10 09:00	06/24/10 18:00		
a,a,a-Trifluorotoluene (S)	111	%	50-150	1	06/24/10 09:00	06/24/10 18:00	98-08-8	
4-Bromofluorobenzene (S)	100	%	50-150	1	06/24/10 09:00	06/24/10 18:00	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.3	mg/kg	1.0	1	06/21/10 17:08	06/25/10 20:39	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	3.0	1		06/24/10 15:13	71-43-2	

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253984

Sample: MW-11-25@20100617 Lab ID: 253984009 Collected: 06/17/10 13:40 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Ethylbenzene	ND	ug/kg	3.0	1		06/24/10 15:13	100-41-4	
Toluene	ND	ug/kg	3.0	1		06/24/10 15:13	108-88-3	
Xylene (Total)	ND	ug/kg	9.1	1		06/24/10 15:13	1330-20-7	
Dibromofluoromethane (S)	85	%	80-136	1		06/24/10 15:13	1868-53-7	
Toluene-d8 (S)	101	%	80-120	1		06/24/10 15:13	2037-26-5	
4-Bromofluorobenzene (S)	87	%	72-122	1		06/24/10 15:13	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	80-143	1		06/24/10 15:13	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	13.3	%	0.10	1		06/23/10 21:29		

Sample: MW-11-30@20100617 Lab ID: 253984010 Collected: 06/17/10 13:50 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	7.1	1	06/24/10 09:00	06/24/10 18:24		
a,a,a-Trifluorotoluene (S)	112	%	50-150	1	06/24/10 09:00	06/24/10 18:24	98-08-8	
4-Bromofluorobenzene (S)	98	%	50-150	1	06/24/10 09:00	06/24/10 18:24	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.3	mg/kg	1.2	1	06/21/10 17:08	06/25/10 20:41	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.9	1		06/24/10 15:33	71-43-2	
Ethylbenzene	ND	ug/kg	2.9	1		06/24/10 15:33	100-41-4	
Toluene	ND	ug/kg	2.9	1		06/24/10 15:33	108-88-3	
Xylene (Total)	ND	ug/kg	8.7	1		06/24/10 15:33	1330-20-7	
Dibromofluoromethane (S)	90	%	80-136	1		06/24/10 15:33	1868-53-7	
Toluene-d8 (S)	96	%	80-120	1		06/24/10 15:33	2037-26-5	
4-Bromofluorobenzene (S)	83	%	72-122	1		06/24/10 15:33	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-143	1		06/24/10 15:33	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	17.7	%	0.10	1		06/23/10 21:30		

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253984

Sample: MW-11-32@20100617 **Lab ID:** 253984011 Collected: 06/17/10 14:00 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.5	1	06/24/10 09:00	06/24/10 18:48		
a,a,a-Trifluorotoluene (S)	114	%	50-150	1	06/24/10 09:00	06/24/10 18:48	98-08-8	
4-Bromofluorobenzene (S)	101	%	50-150	1	06/24/10 09:00	06/24/10 18:48	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	3.1	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:44	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.5	1		06/24/10 15:52	71-43-2	
Ethylbenzene	ND	ug/kg	2.5	1		06/24/10 15:52	100-41-4	
Toluene	ND	ug/kg	2.5	1		06/24/10 15:52	108-88-3	
Xylene (Total)	ND	ug/kg	7.6	1		06/24/10 15:52	1330-20-7	
Dibromofluoromethane (S)	88	%	80-136	1		06/24/10 15:52	1868-53-7	
Toluene-d8 (S)	104	%	80-120	1		06/24/10 15:52	2037-26-5	
4-Bromofluorobenzene (S)	93	%	72-122	1		06/24/10 15:52	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	80-143	1		06/24/10 15:52	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	12.0	%	0.10	1		06/23/10 21:31		

Sample: Trip Blank@20100617 **Lab ID:** 253984012 Collected: 06/17/10 00:00 Received: 06/17/10 16:20 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.0	1	06/24/10 09:00	06/24/10 15:15		
a,a,a-Trifluorotoluene (S)	115	%	50-150	1	06/24/10 09:00	06/24/10 15:15	98-08-8	
4-Bromofluorobenzene (S)	93	%	50-150	1	06/24/10 09:00	06/24/10 15:15	460-00-4	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	3.0	1		06/24/10 12:39	71-43-2	
Ethylbenzene	ND	ug/kg	3.0	1		06/24/10 12:39	100-41-4	
Toluene	ND	ug/kg	3.0	1		06/24/10 12:39	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		06/24/10 12:39	1330-20-7	
Dibromofluoromethane (S)	88	%	80-136	1		06/24/10 12:39	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/24/10 12:39	2037-26-5	
4-Bromofluorobenzene (S)	89	%	72-122	1		06/24/10 12:39	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	80-143	1		06/24/10 12:39	17060-07-0	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch: GCV/1607 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Solid GCV
Associated Lab Samples: 253984002, 253984004, 253984005, 253984007

METHOD BLANK: 30893 Matrix: Solid

Associated Lab Samples: 253984002, 253984004, 253984005, 253984007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/24/10 09:00	
4-Bromofluorobenzene (S)	%	97	50-150	06/24/10 09:00	
a,a,a-Trifluorotoluene (S)	%	106	50-150	06/24/10 09:00	

LABORATORY CONTROL SAMPLE: 30894

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	12.3	98	54-156	
4-Bromofluorobenzene (S)	%			93	50-150	
a,a,a-Trifluorotoluene (S)	%			100	50-150	

SAMPLE DUPLICATE: 31163

Parameter	Units	253995035 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	.7J		
4-Bromofluorobenzene (S)	%	87	82	6	
a,a,a-Trifluorotoluene (S)	%	90	88	3	

SAMPLE DUPLICATE: 31519

Parameter	Units	253984007 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	1.5J		1n
4-Bromofluorobenzene (S)	%	58	61	6	
a,a,a-Trifluorotoluene (S)	%	63	59	7	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch:	GCV/1609	Analysis Method:	NWTPH-Gx
QC Batch Method:	NWTPH-Gx	Analysis Description:	NWTPH-Gx Solid GCV
Associated Lab Samples:	253984001, 253984006, 253984008, 253984009, 253984010, 253984011, 253984012		

METHOD BLANK: 31075 Matrix: Solid

Associated Lab Samples: 253984001, 253984006, 253984008, 253984009, 253984010, 253984011, 253984012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/24/10 12:08	
4-Bromofluorobenzene (S)	%	90	50-150	06/24/10 12:08	
a,a,a-Trifluorotoluene (S)	%	100	50-150	06/24/10 12:08	

LABORATORY CONTROL SAMPLE: 31076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	11.5	92	54-156	
4-Bromofluorobenzene (S)	%			87	50-150	
a,a,a-Trifluorotoluene (S)	%			97	50-150	

SAMPLE DUPLICATE: 31161

Parameter	Units	254064001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	ND		
4-Bromofluorobenzene (S)	%	93	95	2	
a,a,a-Trifluorotoluene (S)	%	108	107	.5	

SAMPLE DUPLICATE: 31162

Parameter	Units	253992007 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	2.3J		
4-Bromofluorobenzene (S)	%	100	98	2	
a,a,a-Trifluorotoluene (S)	%	115	113	2	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch: GCV/1630

Analysis Method: NWTPH-Gx

QC Batch Method: NWTPH-Gx

Analysis Description: NWTPH-Gx Solid GCV

Associated Lab Samples: 253984003

METHOD BLANK: 31713

Matrix: Solid

Associated Lab Samples: 253984003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/28/10 18:33	
4-Bromofluorobenzene (S)	%	82	50-150	06/28/10 18:33	
a,a,a-Trifluorotoluene (S)	%	95	50-150	06/28/10 18:33	

LABORATORY CONTROL SAMPLE: 31714

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	11.6	93	54-156	
4-Bromofluorobenzene (S)	%			80	50-150	
a,a,a-Trifluorotoluene (S)	%			85	50-150	

SAMPLE DUPLICATE: 31715

Parameter	Units	253984003 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	.46J		1n
4-Bromofluorobenzene (S)	%	68	67		1
a,a,a-Trifluorotoluene (S)	%	73	72		1

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch:	MPRP/1602	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	253984001, 253984002, 253984003, 253984004, 253984005, 253984006, 253984007, 253984008, 253984009, 253984010, 253984011		

METHOD BLANK:	30706	Matrix:	Solid
Associated Lab Samples:	253984001, 253984002, 253984003, 253984004, 253984005, 253984006, 253984007, 253984008, 253984009, 253984010, 253984011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	1.0	06/26/10 10:46	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	25	27.4	110	80-120	

Parameter		Units	253984001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead		mg/kg	1.3	24.8	24.6	27.3	26.3	105	102	75-125	4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch: MSV/2525

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 253984001, 253984002

METHOD BLANK: 30899

Matrix: Solid

Associated Lab Samples: 253984001, 253984002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/23/10 10:37	
Ethylbenzene	ug/kg	ND	3.0	06/23/10 10:37	
Toluene	ug/kg	ND	3.0	06/23/10 10:37	
Xylene (Total)	ug/kg	ND	9.0	06/23/10 10:37	
1,2-Dichloroethane-d4 (S)	%	86	80-143	06/23/10 10:37	
4-Bromofluorobenzene (S)	%	90	72-122	06/23/10 10:37	
Dibromofluoromethane (S)	%	87	80-136	06/23/10 10:37	
Toluene-d8 (S)	%	101	80-120	06/23/10 10:37	

LABORATORY CONTROL SAMPLE: 30900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	63.1	126	75-133	
Ethylbenzene	ug/kg	50	56.7	113	68-131	
Toluene	ug/kg	50	59.9	120	73-124	
Xylene (Total)	ug/kg	150	171	114	68-130	
1,2-Dichloroethane-d4 (S)	%			95	80-143	
4-Bromofluorobenzene (S)	%			90	72-122	
Dibromofluoromethane (S)	%			96	80-136	
Toluene-d8 (S)	%			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 31148

31149

Parameter	Units	254037001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/kg	ND	44.2	40.8	37.5	32.2	85	79	68-124	15	
Ethylbenzene	ug/kg	ND	44.2	40.8	32.3	28.3	73	69	63-131	14	
Toluene	ug/kg	ND	44.2	40.8	33.8	30.0	77	74	61-126	12	
Xylene (Total)	ug/kg	ND	133	122	98.5	86.6	74	71	68-129	13	
1,2-Dichloroethane-d4 (S)	%						91	93	80-143		
4-Bromofluorobenzene (S)	%						96	96	72-122		
Dibromofluoromethane (S)	%						95	96	80-136		
Toluene-d8 (S)	%						97	97	80-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch:	MSV/2532	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	253984004, 253984005, 253984006, 253984007, 253984008, 253984009, 253984010, 253984011, 253984012		

METHOD BLANK: 31068 Matrix: Solid

Associated Lab Samples: 253984004, 253984005, 253984006, 253984007, 253984008, 253984009, 253984010, 253984011, 253984012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/24/10 11:47	
Ethylbenzene	ug/kg	ND	3.0	06/24/10 11:47	
Toluene	ug/kg	ND	3.0	06/24/10 11:47	
Xylene (Total)	ug/kg	ND	9.0	06/24/10 11:47	
1,2-Dichloroethane-d4 (S)	%	86	80-143	06/24/10 11:47	
4-Bromofluorobenzene (S)	%	89	72-122	06/24/10 11:47	
Dibromofluoromethane (S)	%	87	80-136	06/24/10 11:47	
Toluene-d8 (S)	%	100	80-120	06/24/10 11:47	

LABORATORY CONTROL SAMPLE & LCSD: 31069

31070

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	50	61.2	59.7	122	119	75-133	2	30	
Ethylbenzene	ug/kg	50	53.6	53.6	107	107	68-131	.03	30	
Toluene	ug/kg	50	54.4	54.5	109	109	73-124	.2	30	
Xylene (Total)	ug/kg	150	162	162	108	108	68-130	.4	30	
1,2-Dichloroethane-d4 (S)	%				90	85	80-143			
4-Bromofluorobenzene (S)	%				94	95	72-122			
Dibromofluoromethane (S)	%				99	94	80-136			
Toluene-d8 (S)	%				98	97	80-120			

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch: MSV/2538

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 253984003

METHOD BLANK: 31257

Matrix: Solid

Associated Lab Samples: 253984003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/25/10 10:01	
Ethylbenzene	ug/kg	ND	3.0	06/25/10 10:01	
Toluene	ug/kg	ND	3.0	06/25/10 10:01	
Xylene (Total)	ug/kg	ND	9.0	06/25/10 10:01	
1,2-Dichloroethane-d4 (S)	%	87	80-143	06/25/10 10:01	
4-Bromofluorobenzene (S)	%	92	72-122	06/25/10 10:01	
Dibromofluoromethane (S)	%	89	80-136	06/25/10 10:01	
Toluene-d8 (S)	%	102	80-120	06/25/10 10:01	

LABORATORY CONTROL SAMPLE & LCSD: 31258

31264

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	50	59.7	58.0	119	116	75-133	3	30	
Ethylbenzene	ug/kg	50	52.4	50.3	105	101	68-131	4	30	
Toluene	ug/kg	50	54.6	52.3	109	105	73-124	4	30	
Xylene (Total)	ug/kg	150	158	151	105	101	68-130	4	30	
1,2-Dichloroethane-d4 (S)	%				90	90	80-143			
4-Bromofluorobenzene (S)	%				94	92	72-122			
Dibromofluoromethane (S)	%				98	97	80-136			
Toluene-d8 (S)	%				99	99	80-120			

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253984

QC Batch:	PMST/1242	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	253984001, 253984002, 253984003, 253984004, 253984005, 253984006, 253984007, 253984008, 253984009, 253984010, 253984011		

SAMPLE DUPLICATE: 31065

Parameter	Units	253984001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	10.2	9.6	6	

SAMPLE DUPLICATE: 31066

Parameter	Units	254002009 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	16.7	15.6	6	

QUALIFIERS

Project: 2611255

Pace Project No.: 253984

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.

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

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

1n Extraction conducted outside of 48-hours from date of collection.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 253984

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
253984001	MW-13-20@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984002	MW-13-25@20100617	NWTPH-Gx	GCV/1607	NWTPH-Gx	GCV/1612
253984003	MW-13-30@20100617	NWTPH-Gx	GCV/1630	NWTPH-Gx	GCV/1631
253984004	MW-13-35@20100617	NWTPH-Gx	GCV/1607	NWTPH-Gx	GCV/1612
253984005	MW-12-20@20100617	NWTPH-Gx	GCV/1607	NWTPH-Gx	GCV/1612
253984006	MW-12-25@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984007	MW-12-30@20100617	NWTPH-Gx	GCV/1607	NWTPH-Gx	GCV/1612
253984008	MW-11-20@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984009	MW-11-25@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984010	MW-11-30@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984011	MW-11-32@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984012	Trip Blank@20100617	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253984001	MW-13-20@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984002	MW-13-25@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984003	MW-13-30@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984004	MW-13-35@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984005	MW-12-20@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984006	MW-12-25@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984007	MW-12-30@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984008	MW-11-20@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984009	MW-11-25@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984010	MW-11-30@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984011	MW-11-32@20100617	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253984001	MW-13-20@20100617	EPA 8260	MSV/2525		
253984002	MW-13-25@20100617	EPA 8260	MSV/2525		
253984003	MW-13-30@20100617	EPA 8260	MSV/2538		
253984004	MW-13-35@20100617	EPA 8260	MSV/2532		
253984005	MW-12-20@20100617	EPA 8260	MSV/2532		
253984006	MW-12-25@20100617	EPA 8260	MSV/2532		
253984007	MW-12-30@20100617	EPA 8260	MSV/2532		
253984008	MW-11-20@20100617	EPA 8260	MSV/2532		
253984009	MW-11-25@20100617	EPA 8260	MSV/2532		
253984010	MW-11-30@20100617	EPA 8260	MSV/2532		
253984011	MW-11-32@20100617	EPA 8260	MSV/2532		
253984012	Trip Blank@20100617	EPA 8260	MSV/2532		
253984001	MW-13-20@20100617	ASTM D2974-87	PMST/1242		
253984002	MW-13-25@20100617	ASTM D2974-87	PMST/1242		
253984003	MW-13-30@20100617	ASTM D2974-87	PMST/1242		
253984004	MW-13-35@20100617	ASTM D2974-87	PMST/1242		
253984005	MW-12-20@20100617	ASTM D2974-87	PMST/1242		
253984006	MW-12-25@20100617	ASTM D2974-87	PMST/1242		
253984007	MW-12-30@20100617	ASTM D2974-87	PMST/1242		
253984008	MW-11-20@20100617	ASTM D2974-87	PMST/1242		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 253984

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
253984009	MW-11-25@20100617	ASTM D2974-87	PMST/1242		
253984010	MW-11-30@20100617	ASTM D2974-87	PMST/1242		
253984011	MW-11-32@20100617	ASTM D2974-87	PMST/1242		



CHAIN-OF-CUSTODY / Analytical Request Document

253984

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Section D Regulatory Agency:	
Company: Delta Consultants		Report To: Bryan Taylor		Attention: Same as left		REGULATORY AGENCY	
Address: 4906 149th Ave NE		Copy To:		Company Name:		NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐	
Email To: btaylor@deltaenv.com		Purchase Order No.:		Address:		UST ☐ RCRA ☐ OTHER ☐	
Phone: 425-240-9321 Fax: 425-869-1892		Project Name: ELT		Pace Quote		Site Location	
Requested Due Date/TAT: Standard		Project Number: 261255		Pace Project Manager: Regina St. Marie		STATE: WA	

Section D Required Client Information		Matrix Codes MATRIX / CODE		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analysis Test		Residual Chlorine (Y/N)		Pace Project No./ Lab I.D.	
Sample IDs MUST BE UNIQUE (A-Z, 0-9 / -)		Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other		COMPOSITE START		COMPOSITE END/GRAB				Unpreserved Jar		H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other DI w/ Stir Bar		↓ Analysis Test ↓			
ITEM #	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	DATE	TIME											
1	MW-13-20-20100617	SL	6-17-10	10:00			4	1									
2	MW-13-25-20100617	SL															
3	MW-13-30-20100617	SL															
4	MW-13-35-20100617	SL															
5	MW-12-20-20100617	SL															
6	MW-12-25-20100617	SL															
7	MW-12-30-20100617	SL															
8	MW-11-20-20100617	SL															
9	MW-11-25-20100617	SL															
10	MW-11-30-20100617	SL															
11	MW-11-32-20100617	SL															
12	TRP Blanks - 20100617	SL															
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS								
*IDs edited to match Delta naming conventions. RSM 0618/10		Megan Macdonald-Delta	6-17-10	10:20	Rogina Seimau		6/17/10	16:20	59	Y	N	Y					

ORIGINAL	
SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Megan Macdonald
SIGNATURE of SAMPLER:	<i>Megan Macdonald</i>
DATE Signed (MM/DD/YY):	6-17-10
Temp in °C	
Received on Ice (Y/N)	
Custody Sealed Cooler (Y/N)	
Samples Intact (Y/N)	

*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.



Sample Condition Upon Receipt

Client Name: Delta WA

Project # 253984

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: NA

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used Horiba 132013

Type of Ice: Wet Blue None

Cooler Temperature 5.9

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: RSM 06/17/10

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6. Terracore kits
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐ Yes ☒ No	Initial when completed
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	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	16.
Pace Trip Blank Lot # (if purchased):		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RSM

Date: 06/18/10

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)

F-ALLC003rev.3, 11 September 2006

Sample Container Count

CLIENT: Docta WFA

COC PAGE 1 of 1
COC ID# 131823

Pass Analytical
www.passanalytical.com

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9U	WGKU	VG9W	DG9M	Comments
1										1		2	1	
2										1		2	1	
3										1		2	1	
4										1		2	1	
5										1		2	1	
6										1		2	1	
7										1		2	1	
8										1		2	1	
9										1		2	1	
10										1		2	1	
11										1		2	1	Trip Blank? <u>yes</u>
12														

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JG9U	4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass	BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass	BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass	BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighed (EPA 5035)
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate amber vial	VSQ	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber vial	WG9U	4oz clear soil jar
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFX	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn Ac	DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic	I	Wipe/Swab		

July 02, 2010

Bryan Taylor
Delta Consultants
4006 148th Ave. NE
Redmond, WA 98052

RE: Project: 2611255
Pace Project No.: 253992

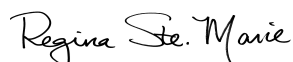
Dear Bryan Taylor:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Sample 011 was received with no visible methanol in the Gx container. With client approval, Pace extruded and preserved soil from an unpreserved jar for Gx more than 48 hours after collection.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Nasrin Bastami, Delta Consultants
Thuan Bui, ELT_Delta Consultants, Washing
Eric Larsen, Delta Consultants
Megan MacDonald, ELT_Delta Consultants, Washing
Joe Rounds, Delta Environmental
Dan Rowlands, ELT_Delta Consultants, Washing

Hitomi Somics, Delta Consultants

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2611255

Pace Project No.: 253992

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 253992

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
253992001	MW-10-10_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992002	MW-10-15_20100618	EPA 6010	BGA	1	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992003	MW-10-20_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992004	MW-10-30_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LNH	6	PASI-S
		EPA 8260	LPM	6	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992005	MW-9-20_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992006	MW-9-25_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992007	MW-9-30_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992008	MW-9-33_20100618	NWTPH-Gx	LPM	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S
253992009	MW-9-36_20100618	NWTPH-Gx	ATH	3	PASI-S
		EPA 8260	LPM	8	PASI-S
253992010	Trip Blank_20100618	NWTPH-Gx	ATH	3	PASI-S
		EPA 8260	LPM	8	PASI-S
253992011	MW-10-25_20100618	NWTPH-Gx	ATH	3	PASI-S
		EPA 6010	BGA	1	PASI-S

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 253992

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	LPM	8	PASI-S
		ASTM D2974-87	DMT	1	PASI-S

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253992

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: ELT_Delta Consultants, Washington

Date: July 02, 2010

General Information:

10 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

QC Batch: GCV/1609

S5: Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

- MW-10-10_20100618 (Lab ID: 253992001)
 - 4-Bromofluorobenzene (S)
- MW-10-30_20100618 (Lab ID: 253992004)
 - 4-Bromofluorobenzene (S)

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253992

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: ELT_Delta Consultants, Washington

Date: July 02, 2010

Sample Comments:

No unpreserved sample portion was received for sample MW-9-36. Results reported on a wet weight basis.

- MW-9-36_20100618 (Lab ID: 253992009)

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253992

Method: EPA 6010

Description: 6010 MET ICP

Client: ELT_Delta Consultants, Washington

Date: July 02, 2010

General Information:

9 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

Sample Comments:

No terracore kit received for sample MW-10-15. Client cancelled 8260 and Gx.

- MW-10-15_20100618 (Lab ID: 253992002)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253992

Method: EPA 8260

Description: 8260 MSV 5035A Med Level VOA

Client: ELT_Delta Consultants, Washington

Date: July 02, 2010

General Information:

1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 5035A/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

QC Batch: MSV/2568

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- MW-10-30_20100618 (Lab ID: 253992004)
- Toluene-d8 (S)

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253992

Method: EPA 8260

Description: 8260/5035A Volatile Organics

Client: ELT_Delta Consultants, Washington

Date: July 02, 2010

General Information:

10 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

QC Batch: MSV/2532

S5: Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

- MW-10-10_20100618 (Lab ID: 253992001)
 - 4-Bromofluorobenzene (S)
 - Toluene-d8 (S)

QC Batch: MSV/2538

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- MW-10-30_20100618 (Lab ID: 253992004)
 - 1,2-Dichloroethane-d4 (S)
 - 4-Bromofluorobenzene (S)
 - Dibromofluoromethane (S)
 - Toluene-d8 (S)

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 253992

Method: EPA 8260

Description: 8260/5035A Volatile Organics

Client: ELT_Delta Consultants, Washington

Date: July 02, 2010

Additional Comments:

Sample Comments:

No unpreserved sample portion was received for sample MW-9-36. Results reported on a wet weight basis.

- MW-9-36_20100618 (Lab ID: 253992009)

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 253992

Sample: MW-10-10_20100618 **Lab ID:** 253992001 Collected: 06/18/10 07:45 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	1180	mg/kg	47.6	10	06/24/10 09:00	06/24/10 21:57		
a,a,a-Trifluorotoluene (S)	110	%	50-150	10	06/24/10 09:00	06/24/10 21:57	98-08-8	
4-Bromofluorobenzene (S)	157	%	50-150	10	06/24/10 09:00	06/24/10 21:57	460-00-4	S5
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.6	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:47	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.4	1		06/24/10 18:25	71-43-2	
Ethylbenzene	ND	ug/kg	2.4	1		06/24/10 18:25	100-41-4	
Toluene	ND	ug/kg	2.4	1		06/24/10 18:25	108-88-3	
Xylene (Total)	ND	ug/kg	7.1	1		06/24/10 18:25	1330-20-7	
Dibromofluoromethane (S)	88	%	80-136	1		06/24/10 18:25	1868-53-7	
Toluene-d8 (S)	139	%	80-120	1		06/24/10 18:25	2037-26-5	S5
4-Bromofluorobenzene (S)	2080	%	72-122	1		06/24/10 18:25	460-00-4	S5
1,2-Dichloroethane-d4 (S)	93	%	80-143	1		06/24/10 18:25	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.3	%	0.10	1		06/24/10 20:43		

Sample: MW-10-15_20100618 **Lab ID:** 253992002 Collected: 06/18/10 08:00 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	ND	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:50	7439-92-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.1	%	0.10	1		06/24/10 20:44		

Sample: MW-10-20_20100618 **Lab ID:** 253992003 Collected: 06/18/10 08:15 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	8.4	1	06/24/10 09:00	06/24/10 20:23		
a,a,a-Trifluorotoluene (S)	116	%	50-150	1	06/24/10 09:00	06/24/10 20:23	98-08-8	
4-Bromofluorobenzene (S)	101	%	50-150	1	06/24/10 09:00	06/24/10 20:23	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	ND	mg/kg	1.1	1	06/21/10 17:08	06/25/10 20:52	7439-92-1	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 253992

Sample: MW-10-20_20100618 **Lab ID:** 253992003 Collected: 06/18/10 08:15 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.8	1		06/24/10 18:05	71-43-2	
Ethylbenzene	ND	ug/kg	2.8	1		06/24/10 18:05	100-41-4	
Toluene	ND	ug/kg	2.8	1		06/24/10 18:05	108-88-3	
Xylene (Total)	ND	ug/kg	8.5	1		06/24/10 18:05	1330-20-7	
Dibromofluoromethane (S)	87	%	80-136	1		06/24/10 18:05	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/24/10 18:05	2037-26-5	
4-Bromofluorobenzene (S)	90	%	72-122	1		06/24/10 18:05	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	80-143	1		06/24/10 18:05	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.1	%	0.10	1		06/24/10 20:46		

Sample: MW-10-30_20100618 **Lab ID:** 253992004 Collected: 06/18/10 08:45 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	2800	mg/kg	59.9	10	06/24/10 09:00	06/24/10 22:20		
a,a,a-Trifluorotoluene (S)	118	%	50-150	10	06/24/10 09:00	06/24/10 22:20	98-08-8	
4-Bromofluorobenzene (S)	220	%	50-150	10	06/24/10 09:00	06/24/10 22:20	460-00-4	S5
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.4	mg/kg	0.91	1	06/21/10 17:08	06/25/10 20:55	7439-92-1	
8260 MSV 5035A Med Level VOA		Analytical Method: EPA 8260 Preparation Method: EPA 5035A/5030B						
Ethylbenzene	15100	ug/kg	59.9	1	06/24/10 09:00	06/29/10 15:16	100-41-4	
Xylene (Total)	71500	ug/kg	1800	10	06/24/10 09:00	06/30/10 14:48	1330-20-7	
Dibromofluoromethane (S)	106	%	81-114	1	06/24/10 09:00	06/29/10 15:16	1868-53-7	
Toluene-d8 (S)	153	%	84-121	1	06/24/10 09:00	06/29/10 15:16	2037-26-5	S2
4-Bromofluorobenzene (S)	120	%	78-127	1	06/24/10 09:00	06/29/10 15:16	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	76-115	1	06/24/10 09:00	06/29/10 15:16	17060-07-0	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	3.1	1		06/25/10 16:31	71-43-2	
Toluene	ND	ug/kg	3.1	1		06/25/10 16:31	108-88-3	
Dibromofluoromethane (S)	2650	%	80-136	1		06/25/10 16:31	1868-53-7	S2
Toluene-d8 (S)	1470000	%	80-120	1		06/25/10 16:31	2037-26-5	S2
4-Bromofluorobenzene (S)	5940	%	72-122	1		06/25/10 16:31	460-00-4	S2
1,2-Dichloroethane-d4 (S)	153000	%	80-143	1		06/25/10 16:31	17060-07-0	S2
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	15.1	%	0.10	1		06/24/10 20:47		

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 253992

Sample: MW-9-20_20100618 **Lab ID:** 253992005 Collected: 06/18/10 10:00 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	6.3	1	06/24/10 09:00	06/24/10 20:46		
a,a,a-Trifluorotoluene (S)	122	%	50-150	1	06/24/10 09:00	06/24/10 20:46	98-08-8	
4-Bromofluorobenzene (S)	102	%	50-150	1	06/24/10 09:00	06/24/10 20:46	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.1	mg/kg	1.0	1	06/21/10 17:08	06/25/10 20:58	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.6	1		06/24/10 16:10	71-43-2	
Ethylbenzene	ND	ug/kg	2.6	1		06/24/10 16:10	100-41-4	
Toluene	ND	ug/kg	2.6	1		06/24/10 16:10	108-88-3	
Xylene (Total)	ND	ug/kg	7.9	1		06/24/10 16:10	1330-20-7	
Dibromofluoromethane (S)	86	%	80-136	1		06/24/10 16:10	1868-53-7	
Toluene-d8 (S)	100	%	80-120	1		06/24/10 16:10	2037-26-5	
4-Bromofluorobenzene (S)	90	%	72-122	1		06/24/10 16:10	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	80-143	1		06/24/10 16:10	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	7.2	%	0.10	1		06/24/10 20:47		

Sample: MW-9-25_20100618 **Lab ID:** 253992006 Collected: 06/18/10 10:15 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	7.3	1	06/24/10 09:00	06/24/10 21:10		
a,a,a-Trifluorotoluene (S)	117	%	50-150	1	06/24/10 09:00	06/24/10 21:10	98-08-8	
4-Bromofluorobenzene (S)	96	%	50-150	1	06/24/10 09:00	06/24/10 21:10	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.3	mg/kg	1.1	1	06/21/10 17:08	06/25/10 21:01	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	3.0	1		06/24/10 16:30	71-43-2	
Ethylbenzene	ND	ug/kg	3.0	1		06/24/10 16:30	100-41-4	
Toluene	ND	ug/kg	3.0	1		06/24/10 16:30	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		06/24/10 16:30	1330-20-7	
Dibromofluoromethane (S)	85	%	80-136	1		06/24/10 16:30	1868-53-7	
Toluene-d8 (S)	104	%	80-120	1		06/24/10 16:30	2037-26-5	
4-Bromofluorobenzene (S)	88	%	72-122	1		06/24/10 16:30	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	80-143	1		06/24/10 16:30	17060-07-0	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 253992

Sample: MW-9-25_20100618 **Lab ID:** 253992006 Collected: 06/18/10 10:15 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	12.1	%	0.10	1		06/24/10 20:48		

Sample: MW-9-30_20100618 **Lab ID:** 253992007 Collected: 06/18/10 10:30 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	6.9	1	06/24/10 09:00	06/24/10 19:12		
a,a,a-Trifluorotoluene (S)	115	%	50-150	1	06/24/10 09:00	06/24/10 19:12	98-08-8	
4-Bromofluorobenzene (S)	100	%	50-150	1	06/24/10 09:00	06/24/10 19:12	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.3	mg/kg	0.93	1	06/21/10 17:08	06/26/10 10:48	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	36.7	ug/kg	2.9	1		06/24/10 16:49	71-43-2	
Ethylbenzene	28.7	ug/kg	2.9	1		06/24/10 16:49	100-41-4	
Toluene	ND	ug/kg	2.9	1		06/24/10 16:49	108-88-3	
Xylene (Total)	ND	ug/kg	8.8	1		06/24/10 16:49	1330-20-7	
Dibromofluoromethane (S)	83	%	80-136	1		06/24/10 16:49	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/24/10 16:49	2037-26-5	
4-Bromofluorobenzene (S)	92	%	72-122	1		06/24/10 16:49	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	80-143	1		06/24/10 16:49	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	15.1	%	0.10	1		06/24/10 20:49		

Sample: MW-9-33_20100618 **Lab ID:** 253992008 Collected: 06/18/10 10:45 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	6.5	1	06/24/10 09:00	06/24/10 21:33		
a,a,a-Trifluorotoluene (S)	112	%	50-150	1	06/24/10 09:00	06/24/10 21:33	98-08-8	
4-Bromofluorobenzene (S)	96	%	50-150	1	06/24/10 09:00	06/24/10 21:33	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.4	mg/kg	0.96	1	06/21/10 17:08	06/26/10 10:51	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	90.8	ug/kg	2.6	1		06/24/10 17:08	71-43-2	

Date: 07/02/2010 04:44 PM

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 253992

Sample: MW-9-33_20100618 **Lab ID:** 253992008 Collected: 06/18/10 10:45 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Ethylbenzene	64.8	ug/kg	2.6	1		06/24/10 17:08	100-41-4	
Toluene	40.7	ug/kg	2.6	1		06/24/10 17:08	108-88-3	
Xylene (Total)	138	ug/kg	7.8	1		06/24/10 17:08	1330-20-7	
Dibromofluoromethane (S)	84	%	80-136	1		06/24/10 17:08	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/24/10 17:08	2037-26-5	
4-Bromofluorobenzene (S)	92	%	72-122	1		06/24/10 17:08	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	80-143	1		06/24/10 17:08	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.8	%	0.10	1		06/24/10 20:51		

Sample: MW-9-36_20100618 **Lab ID:** 253992009 Collected: 06/18/10 11:00 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	5.2	1	06/29/10 14:00	06/30/10 08:01		
a,a,a-Trifluorotoluene (S)	106	%	50-150	1	06/29/10 14:00	06/30/10 08:01	98-08-8	
4-Bromofluorobenzene (S)	88	%	50-150	1	06/29/10 14:00	06/30/10 08:01	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	21.7	ug/kg	2.4	1		06/24/10 17:27	71-43-2	
Ethylbenzene	16.9	ug/kg	2.4	1		06/24/10 17:27	100-41-4	
Toluene	13.3	ug/kg	2.4	1		06/24/10 17:27	108-88-3	
Xylene (Total)	24.1	ug/kg	7.2	1		06/24/10 17:27	1330-20-7	
Dibromofluoromethane (S)	83	%	80-136	1		06/24/10 17:27	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/24/10 17:27	2037-26-5	
4-Bromofluorobenzene (S)	92	%	72-122	1		06/24/10 17:27	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	80-143	1		06/24/10 17:27	17060-07-0	

Sample: Trip Blank_20100618 **Lab ID:** 253992010 Collected: 06/18/10 00:00 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	5.0	1	06/29/10 14:00	06/30/10 07:14		
a,a,a-Trifluorotoluene (S)	108	%	50-150	1	06/29/10 14:00	06/30/10 07:14	98-08-8	
4-Bromofluorobenzene (S)	91	%	50-150	1	06/29/10 14:00	06/30/10 07:14	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	3.0	1		06/24/10 12:59	71-43-2	

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ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 253992

Sample: Trip Blank_20100618 **Lab ID:** 253992010 Collected: 06/18/10 00:00 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Ethylbenzene	ND	ug/kg	3.0	1		06/24/10 12:59	100-41-4	
Toluene	ND	ug/kg	3.0	1		06/24/10 12:59	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		06/24/10 12:59	1330-20-7	
Dibromofluoromethane (S)	87	%	80-136	1		06/24/10 12:59	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/24/10 12:59	2037-26-5	
4-Bromofluorobenzene (S)	88	%	72-122	1		06/24/10 12:59	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	80-143	1		06/24/10 12:59	17060-07-0	

Sample: MW-10-25_20100618 **Lab ID:** 253992011 Collected: 06/17/10 08:30 Received: 06/18/10 15:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	5.3	1	06/28/10 12:00	06/30/10 12:47		
a,a,a-Trifluorotoluene (S)	76	%	50-150	1	06/28/10 12:00	06/30/10 12:47	98-08-8	
4-Bromofluorobenzene (S)	67	%	50-150	1	06/28/10 12:00	06/30/10 12:47	460-00-4	

6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050

Lead **1.7** mg/kg 1.0 1 06/21/10 17:08 06/26/10 10:54 7439-92-1

8260/5035A Volatile Organics Analytical Method: EPA 8260

Benzene	ND	ug/kg	3.2	1		06/24/10 17:46	71-43-2	
Ethylbenzene	ND	ug/kg	3.2	1		06/24/10 17:46	100-41-4	
Toluene	ND	ug/kg	3.2	1		06/24/10 17:46	108-88-3	
Xylene (Total)	ND	ug/kg	9.6	1		06/24/10 17:46	1330-20-7	
Dibromofluoromethane (S)	87	%	80-136	1		06/24/10 17:46	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/24/10 17:46	2037-26-5	
4-Bromofluorobenzene (S)	90	%	72-122	1		06/24/10 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	80-143	1		06/24/10 17:46	17060-07-0	

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture **12.0** % 0.10 1 06/24/10 20:52

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch:	GCV/1609	Analysis Method:	NWTPH-Gx
QC Batch Method:	NWTPH-Gx	Analysis Description:	NWTPH-Gx Solid GCV
Associated Lab Samples:	253992001, 253992003, 253992004, 253992005, 253992006, 253992007, 253992008		

METHOD BLANK: 31075 Matrix: Solid

Associated Lab Samples: 253992001, 253992003, 253992004, 253992005, 253992006, 253992007, 253992008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/24/10 12:08	
4-Bromofluorobenzene (S)	%	90	50-150	06/24/10 12:08	
a,a,a-Trifluorotoluene (S)	%	100	50-150	06/24/10 12:08	

LABORATORY CONTROL SAMPLE: 31076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	11.5	92	54-156	
4-Bromofluorobenzene (S)	%			87	50-150	
a,a,a-Trifluorotoluene (S)	%			97	50-150	

SAMPLE DUPLICATE: 31161

Parameter	Units	254064001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	ND		
4-Bromofluorobenzene (S)	%	93	95	2	
a,a,a-Trifluorotoluene (S)	%	108	107	.5	

SAMPLE DUPLICATE: 31162

Parameter	Units	253992007 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	2.3J		
4-Bromofluorobenzene (S)	%	100	98	2	
a,a,a-Trifluorotoluene (S)	%	115	113	2	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch: GCV/1627

Analysis Method: NWTPH-Gx

QC Batch Method: NWTPH-Gx

Analysis Description: NWTPH-Gx Solid GCV

Associated Lab Samples: 253992009, 253992010

METHOD BLANK: 31617

Matrix: Solid

Associated Lab Samples: 253992009, 253992010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/29/10 15:11	
4-Bromofluorobenzene (S)	%	83	50-150	06/29/10 15:11	
a,a,a-Trifluorotoluene (S)	%	103	50-150	06/29/10 15:11	

LABORATORY CONTROL SAMPLE: 31618

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	11.6	93	54-156	
4-Bromofluorobenzene (S)	%			82	50-150	
a,a,a-Trifluorotoluene (S)	%			106	50-150	

SAMPLE DUPLICATE: 31851

Parameter	Units	254059001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	.38J		
4-Bromofluorobenzene (S)	%	88	88	.2	
a,a,a-Trifluorotoluene (S)	%	96	106	10	

SAMPLE DUPLICATE: 31853

Parameter	Units	254090001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	1.1J		
4-Bromofluorobenzene (S)	%	82	71	14	
a,a,a-Trifluorotoluene (S)	%	102	87	15	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch: GCV/1635

Analysis Method: NWTPH-Gx

QC Batch Method: NWTPH-Gx

Analysis Description: NWTPH-Gx Solid GCV

Associated Lab Samples: 253992011

METHOD BLANK: 31890

Matrix: Solid

Associated Lab Samples: 253992011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/30/10 08:49	
4-Bromofluorobenzene (S)	%	85	50-150	06/30/10 08:49	
a,a,a-Trifluorotoluene (S)	%	93	50-150	06/30/10 08:49	

LABORATORY CONTROL SAMPLE: 31891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	10.1	80	54-156	
4-Bromofluorobenzene (S)	%			79	50-150	
a,a,a-Trifluorotoluene (S)	%			89	50-150	

SAMPLE DUPLICATE: 31892

Parameter	Units	253993010 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	60.3	54.1	11	
4-Bromofluorobenzene (S)	%	92	89	3	
a,a,a-Trifluorotoluene (S)	%	67	63	5	

SAMPLE DUPLICATE: 32076

Parameter	Units	254025008 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	.58J		
4-Bromofluorobenzene (S)	%	91	97	7	
a,a,a-Trifluorotoluene (S)	%	107	112	4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch:	MPRP/1602	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	253992001, 253992002, 253992003, 253992004, 253992005, 253992006, 253992007, 253992008, 253992011		

METHOD BLANK:	30706	Matrix:	Solid
Associated Lab Samples:	253992001, 253992002, 253992003, 253992004, 253992005, 253992006, 253992007, 253992008, 253992011		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	1.0	06/26/10 10:46	

LABORATORY CONTROL SAMPLE: 30707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	25	27.4	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 30708 30709

Parameter	Units	253984001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	mg/kg	1.3	24.8	24.6	27.3	26.3	105	102	75-125	4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch:	MSV/2568	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035A/5030B	Analysis Description:	8260 MSV 5035A Medium Soil
Associated Lab Samples:	253992004		

METHOD BLANK: 31745 Matrix: Solid

Associated Lab Samples: 253992004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	ND	50.0	06/29/10 12:27	
Xylene (Total)	ug/kg	ND	150	06/29/10 12:27	
1,2-Dichloroethane-d4 (S)	%	96	76-115	06/29/10 12:27	
4-Bromofluorobenzene (S)	%	99	78-127	06/29/10 12:27	
Dibromofluoromethane (S)	%	91	81-114	06/29/10 12:27	
Toluene-d8 (S)	%	99	84-121	06/29/10 12:27	

LABORATORY CONTROL SAMPLE & LCSD: 31746 31747

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethylbenzene	ug/kg	1000	947	959	95	96	77-126	1	30	
Xylene (Total)	ug/kg	3000	2900	2900	97	97	77-127	.1	30	
1,2-Dichloroethane-d4 (S)	%				99	97	76-115			
4-Bromofluorobenzene (S)	%				98	100	78-127			
Dibromofluoromethane (S)	%				97	96	81-114			
Toluene-d8 (S)	%				98	100	84-121			

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch:	MSV/2532	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	253992001, 253992003, 253992005, 253992006, 253992007, 253992008, 253992009, 253992010, 253992011		

METHOD BLANK: 31068 Matrix: Solid

Associated Lab Samples: 253992001, 253992003, 253992005, 253992006, 253992007, 253992008, 253992009, 253992010, 253992011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/24/10 11:47	
Ethylbenzene	ug/kg	ND	3.0	06/24/10 11:47	
Toluene	ug/kg	ND	3.0	06/24/10 11:47	
Xylene (Total)	ug/kg	ND	9.0	06/24/10 11:47	
1,2-Dichloroethane-d4 (S)	%	86	80-143	06/24/10 11:47	
4-Bromofluorobenzene (S)	%	89	72-122	06/24/10 11:47	
Dibromofluoromethane (S)	%	87	80-136	06/24/10 11:47	
Toluene-d8 (S)	%	100	80-120	06/24/10 11:47	

LABORATORY CONTROL SAMPLE & LCSD: 31069

31070

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	50	61.2	59.7	122	119	75-133	2	30	
Ethylbenzene	ug/kg	50	53.6	53.6	107	107	68-131	.03	30	
Toluene	ug/kg	50	54.4	54.5	109	109	73-124	.2	30	
Xylene (Total)	ug/kg	150	162	162	108	108	68-130	.4	30	
1,2-Dichloroethane-d4 (S)	%				90	85	80-143			
4-Bromofluorobenzene (S)	%				94	95	72-122			
Dibromofluoromethane (S)	%				99	94	80-136			
Toluene-d8 (S)	%				98	97	80-120			

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch: MSV/2538

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 253992004

METHOD BLANK: 31257

Matrix: Solid

Associated Lab Samples: 253992004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/25/10 10:01	
Toluene	ug/kg	ND	3.0	06/25/10 10:01	
1,2-Dichloroethane-d4 (S)	%	87	80-143	06/25/10 10:01	
4-Bromofluorobenzene (S)	%	92	72-122	06/25/10 10:01	
Dibromofluoromethane (S)	%	89	80-136	06/25/10 10:01	
Toluene-d8 (S)	%	102	80-120	06/25/10 10:01	

LABORATORY CONTROL SAMPLE & LCSD: 31258

31264

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	50	59.7	58.0	119	116	75-133	3	30	
Toluene	ug/kg	50	54.6	52.3	109	105	73-124	4	30	
1,2-Dichloroethane-d4 (S)	%				90	90	80-143			
4-Bromofluorobenzene (S)	%				94	92	72-122			
Dibromofluoromethane (S)	%				98	97	80-136			
Toluene-d8 (S)	%				99	99	80-120			

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 253992

QC Batch: PMST/1244

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 253992001, 253992002, 253992003, 253992004, 253992005, 253992006, 253992007, 253992008, 253992011

SAMPLE DUPLICATE: 31215

Parameter	Units	253992001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	11.3	10.8	5	

SAMPLE DUPLICATE: 31216

Parameter	Units	254025010 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	9.1	9.3	2	

QUALIFIERS

Project: 2611255

Pace Project No.: 253992

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.

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

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

SAMPLE QUALIFIERS

Sample: 253992002

[1] No terracore kit received for sample MW-10-15. Client cancelled 8260 and Gx.

Sample: 253992009

[1] No unpreserved sample portion was received for sample MW-9-36. Results reported on a wet weight basis.

ANALYTE QUALIFIERS

S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

S5 Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 253992

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
253992001	MW-10-10_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992003	MW-10-20_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992004	MW-10-30_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992005	MW-9-20_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992006	MW-9-25_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992007	MW-9-30_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992008	MW-9-33_20100618	NWTPH-Gx	GCV/1609	NWTPH-Gx	GCV/1624
253992009	MW-9-36_20100618	NWTPH-Gx	GCV/1627	NWTPH-Gx	GCV/1633
253992010	Trip Blank_20100618	NWTPH-Gx	GCV/1627	NWTPH-Gx	GCV/1633
253992011	MW-10-25_20100618	NWTPH-Gx	GCV/1635	NWTPH-Gx	GCV/1637
253992001	MW-10-10_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992002	MW-10-15_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992003	MW-10-20_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992004	MW-10-30_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992005	MW-9-20_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992006	MW-9-25_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992007	MW-9-30_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992008	MW-9-33_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992011	MW-10-25_20100618	EPA 3050	MPRP/1602	EPA 6010	ICP/1529
253992004	MW-10-30_20100618	EPA 5035A/5030B	MSV/2568	EPA 8260	MSV/2569
253992001	MW-10-10_20100618	EPA 8260	MSV/2532		
253992003	MW-10-20_20100618	EPA 8260	MSV/2532		
253992004	MW-10-30_20100618	EPA 8260	MSV/2538		
253992005	MW-9-20_20100618	EPA 8260	MSV/2532		
253992006	MW-9-25_20100618	EPA 8260	MSV/2532		
253992007	MW-9-30_20100618	EPA 8260	MSV/2532		
253992008	MW-9-33_20100618	EPA 8260	MSV/2532		
253992009	MW-9-36_20100618	EPA 8260	MSV/2532		
253992010	Trip Blank_20100618	EPA 8260	MSV/2532		
253992011	MW-10-25_20100618	EPA 8260	MSV/2532		
253992001	MW-10-10_20100618	ASTM D2974-87	PMST/1244		
253992002	MW-10-15_20100618	ASTM D2974-87	PMST/1244		
253992003	MW-10-20_20100618	ASTM D2974-87	PMST/1244		
253992004	MW-10-30_20100618	ASTM D2974-87	PMST/1244		
253992005	MW-9-20_20100618	ASTM D2974-87	PMST/1244		
253992006	MW-9-25_20100618	ASTM D2974-87	PMST/1244		
253992007	MW-9-30_20100618	ASTM D2974-87	PMST/1244		
253992008	MW-9-33_20100618	ASTM D2974-87	PMST/1244		
253992011	MW-10-25_20100618	ASTM D2974-87	PMST/1244		

CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

253992

Section A Required Client Information: Company: Delta Consultants Address: 4406 148th Ave NE Redmond, WA 98052 Email To: btaylor@deltaenv.com Phone: 425-240-9821 Fax: 425-849-1842 Requested Due Date/AT: Standard		Section B Required Project Information: Report To: Bryan Taylor Copy To: Purchase Order No.: Project Name: ELT Project Number: 142611255		Section C Invoice Information: Attention: Bryan Taylor Company Name: Sam's as left Address: Pace Quote Reference: Pace Project Manager: Regina Ste Marie Pace Profile #: 21807125		Page: 1 of 1 1318822	
REGULATORY AGENCY NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER ☐ Site Location STATE: WA				Requested Analysis Filtered (Y/N)			

Section D Required Client Information		Matrix Codes MATRIX / CODE		COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analysis Test ↓		Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)		Pace Project No./ Lab I.D.																			
SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		MATRIX CODE (see valid codes to left)		SAMPLE TYPE (G=GRAB C=COMP)		DATE		TIME		DATE		TIME		Unpreserved		H ₂ SO ₄		HNO ₃		HCl		NaOH		Na ₂ S ₂ O ₃		Methanol		Other		↓ Analysis Test ↓															
DW		WT		WW		P		SL		OL		WP		AR		TS		OT																											
Drinking Water		Water		Waste Water		Product		Soil/Solid		Oil		Wipe		Air		Tissue		Other																											
SAMPLE ID																																													
Sample IDs MUST BE UNIQUE																																													
ITEM #																																													
1		MW-10-10-20100618		526						6-18-10		7:45																																	
2		MW-10-15-20100618										8:00																																	
3		MW-10-20-20100618										8:15																																	
4		MW-10-25-20100618										8:30																																	
5		MW-10-30-20100618										8:45																																	
6		MW-9-20-20100618										10:06																																	
7		MW-9-25-20100618										10:15																																	
8		MW-9-30-20100618										10:36																																	
9		MW-9-33-20100618										10:45																																	
10		MW-9-36-20100618										11:00																																	
11		TPH Blanks - 20100618																																											
12																																													

ADDITIONAL COMMENTS XIDS edited to reflect Megan MacDonnell-Delta Delta naming conventions. RSM 06/18/10		RELINQUISHED BY / AFFILIATION Megan MacDonnell-Delta 6-18-10 1430 1505 Regina Ste Marie 6/18/10 15:05		DATE 6-18-10 6-18-10 6-18-10 6-18-10 6-18-10		TIME 1430 1505 1505 1505 1505		ACCEPTED BY / AFFILIATION Megan MacDonnell - Thuan Bui 6-18-10		DATE 6-18-10 6-18-10 6-18-10 6-18-10 6-18-10		TIME 1430 1505 1505 1505 1505		SAMPLE CONDITIONS Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)	
---	--	---	--	--	--	---	--	---	--	--	--	---	--	--	--

Sample Condition Upon Receipt

Pace Analytical

Client Name: Delta WA

Project # 253992

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: NA

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used Horiba 132013

Type of Ice: ☒ Wet ☐ Blue ☐ None

☐ Samples on ice, cooling process has begun

Cooler Temperature _____

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: RSM 06/18/10

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6. terracore kits
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☒ No ☐ N/A	8. No terracore kit for 10-15 / No jar for mw 9-36
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐ Yes ☒ No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☒ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Field Data Required?

Y / N

Client Notification/ Resolution:

Person Contacted: Bryan

Date/Time: 6/18/10

Comments/ Resolution:

Extrude mw-10-15 into terracore kit and narrate that this was done more than 48 hrs. after collection per B. Taylor 6/21/10 RSM. Lab to report mw-9-36 on wet weight basis. RSM 6/21/10 Brian Taylor called 6/21/10 12:30 to cancel mw-10-15 8260 \$6K. RSM

Project Manager Review:

RSM

Date: 06/18/10

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)

F-ALLC003rev.3, 11 September 2006

Sample Container Count

808 Analytical
UNIVERSITY MICROFILMS

CLIENT: Delta WA

COC PAGE 1 of 1
COC ID# 1318822

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9U	WGKU	WGAU	WGKU	Comments
1											2	1	1	
2											2	1	1	
3											2	1	1	
4											2	1	1	
5											2	1	1	
6											2	1	1	
7											2	1	1	
8											2	1	1	
9											2	1		
10											2	1		TB
11														Trip Blank? <u>yes</u>
12														

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber vial
AG1U	1 liter unpreserved amber glass	BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass	BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass	BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighed (EPA 5035)
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate amber vial	VSQ	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac	DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic	I	Wipe/Swab		

July 05, 2011

Bryan Taylor
Antea USA
4006 148th Ave. NE
Redmond, WA 98052

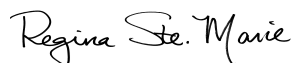
RE: Project: 2611255
Pace Project No.: 258271

Dear Bryan Taylor:

Enclosed are the analytical results for sample(s) received by the laboratory on June 27, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Thuan Bui, Antea USA
Eric Larsen, Antea USA
Megan MacDonald, Antea USA
Joe Rounds, Antea USA
Dan Rowlands, Antea USA
Hitomi Somics, Antea USA

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2611255

Pace Project No.: 258271

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 258271

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258271001	MW-14-25	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258271002	MW-15-25	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258271

Method: NWTPH-Dx

Description: NWTPH-Dx GCS Silica Gel

Client: ELT_Antea Group, Washington

Date: July 05, 2011

General Information:

2 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Page 4 of 16

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258271

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: ELT_Antea Group, Washington

Date: July 05, 2011

General Information:

2 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258271

Method: EPA 6010

Description: 6010 MET ICP

Client: ELT_Antea Group, Washington

Date: July 05, 2011

General Information:

2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258271

Method: EPA 8260

Description: 8260/5035A Volatile Organics

Client: ELT_Antea Group, Washington

Date: July 05, 2011

General Information:

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258271

Sample: MW-14-25 **Lab ID:** 258271001 **Collected:** 06/26/11 09:50 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND mg/kg		17.6	1	06/28/11 09:35	06/28/11 22:00		
Motor Oil Range SG	ND mg/kg		70.5	1	06/28/11 09:35	06/28/11 22:00	64742-65-0	
n-Octacosane (S) SG	99 %		50-150	1	06/28/11 09:35	06/28/11 22:00	630-02-4	
o-Terphenyl (S) SG	87 %		50-150	1	06/28/11 09:35	06/28/11 22:00	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND mg/kg		4.8	1	06/28/11 12:40	06/28/11 22:28		
a,a,a-Trifluorotoluene (S)	128 %		50-150	1	06/28/11 12:40	06/28/11 22:28	98-08-8	
4-Bromofluorobenzene (S)	70 %		50-150	1	06/28/11 12:40	06/28/11 22:28	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.3 mg/kg		0.98	1	06/29/11 07:41	07/01/11 15:42	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND ug/kg		2.5	1		06/29/11 17:37	71-43-2	
Ethylbenzene	ND ug/kg		2.5	1		06/29/11 17:37	100-41-4	
Methyl-tert-butyl ether	ND ug/kg		2.5	1		06/29/11 17:37	1634-04-4	
Toluene	ND ug/kg		2.5	1		06/29/11 17:37	108-88-3	
Xylene (Total)	ND ug/kg		7.5	1		06/29/11 17:37	1330-20-7	
Dibromofluoromethane (S)	103 %		80-136	1		06/29/11 17:37	1868-53-7	
Toluene-d8 (S)	102 %		80-120	1		06/29/11 17:37	2037-26-5	
4-Bromofluorobenzene (S)	105 %		72-122	1		06/29/11 17:37	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		80-143	1		06/29/11 17:37	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	11.4 %		0.10	1		06/28/11 12:44		

Sample: MW-15-25 **Lab ID:** 258271002 **Collected:** 06/26/11 11:35 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND mg/kg		17.9	1	06/28/11 09:35	06/28/11 22:23		
Motor Oil Range SG	ND mg/kg		71.6	1	06/28/11 09:35	06/28/11 22:23	64742-65-0	
n-Octacosane (S) SG	103 %		50-150	1	06/28/11 09:35	06/28/11 22:23	630-02-4	
o-Terphenyl (S) SG	78 %		50-150	1	06/28/11 09:35	06/28/11 22:23	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND mg/kg		5.1	1	06/28/11 12:40	06/28/11 22:52		
a,a,a-Trifluorotoluene (S)	124 %		50-150	1	06/28/11 12:40	06/28/11 22:52	98-08-8	
4-Bromofluorobenzene (S)	66 %		50-150	1	06/28/11 12:40	06/28/11 22:52	460-00-4	

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258271

Sample: MW-15-25 **Lab ID:** 258271002 Collected: 06/26/11 11:35 Received: 06/27/11 08:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.6	mg/kg	1.1	1	06/29/11 07:41	07/01/11 15:53	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	2.9	1		06/29/11 17:54	71-43-2	
Ethylbenzene	ND	ug/kg	2.9	1		06/29/11 17:54	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.9	1		06/29/11 17:54	1634-04-4	
Toluene	ND	ug/kg	2.9	1		06/29/11 17:54	108-88-3	
Xylene (Total)	ND	ug/kg	8.6	1		06/29/11 17:54	1330-20-7	
Dibromofluoromethane (S)	103	%	80-136	1		06/29/11 17:54	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/29/11 17:54	2037-26-5	
4-Bromofluorobenzene (S)	106	%	72-122	1		06/29/11 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	80-143	1		06/29/11 17:54	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	14.5	%	0.10	1		06/28/11 12:44		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258271

QC Batch: OEXT/3948

Analysis Method: NWTPH-Dx

QC Batch Method: EPA 3546

Analysis Description: NWTPH-Dx GCS

Associated Lab Samples: 258271001, 258271002

METHOD BLANK: 75914

Matrix: Solid

Associated Lab Samples: 258271001, 258271002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range SG	mg/kg	ND	16.0	06/28/11 21:15	
Motor Oil Range SG	mg/kg	ND	64.0	06/28/11 21:15	
n-Octacosane (S) SG	%	102	50-150	06/28/11 21:15	
o-Terphenyl (S) SG	%	90	50-150	06/28/11 21:15	

LABORATORY CONTROL SAMPLE: 75915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range SG	mg/kg	500	484	97	56-124	
Motor Oil Range SG	mg/kg	500	518	104	50-150	
n-Octacosane (S) SG	%			102	50-150	
o-Terphenyl (S) SG	%			137	50-150	

SAMPLE DUPLICATE: 75916

Parameter	Units	258272001 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/kg	ND	ND		
Motor Oil Range SG	mg/kg	ND	ND		
n-Octacosane (S) SG	%	101	102	.7	
o-Terphenyl (S) SG	%	89	88	4	

SAMPLE DUPLICATE: 75937

Parameter	Units	258282001 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/kg	ND	ND		
Motor Oil Range SG	mg/kg	ND	ND		
n-Octacosane (S) SG	%	105	107	2	
o-Terphenyl (S) SG	%	92	94	2	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258271

QC Batch: GCV/2325

Analysis Method: NWTPH-Gx

QC Batch Method: NWTPH-Gx

Analysis Description: NWTPH-Gx Solid GCV

Associated Lab Samples: 258271001, 258271002

METHOD BLANK: 75956

Matrix: Solid

Associated Lab Samples: 258271001, 258271002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/28/11 20:30	
4-Bromofluorobenzene (S)	%	60	50-150	06/28/11 20:30	
a,a,a-Trifluorotoluene (S)	%	111	50-150	06/28/11 20:30	

LABORATORY CONTROL SAMPLE: 75957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	11.6	93	54-156	
4-Bromofluorobenzene (S)	%			65	50-150	
a,a,a-Trifluorotoluene (S)	%			120	50-150	

SAMPLE DUPLICATE: 76066

Parameter	Units	258213006 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	2.1J		
4-Bromofluorobenzene (S)	%	75	73	2	
a,a,a-Trifluorotoluene (S)	%	126	127	.6	

SAMPLE DUPLICATE: 76067

Parameter	Units	258272001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	.46J		
4-Bromofluorobenzene (S)	%	72	60	19	
a,a,a-Trifluorotoluene (S)	%	126	107	17	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258271

QC Batch: MPRP/2300

Analysis Method: EPA 6010

QC Batch Method: EPA 3050

Analysis Description: 6010 MET

Associated Lab Samples: 258271001, 258271002

METHOD BLANK: 76026

Matrix: Solid

Associated Lab Samples: 258271001, 258271002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	1.0	07/01/11 15:24	

LABORATORY CONTROL SAMPLE: 76027

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	25	27.4	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 76028

76029

Parameter	Units	258271001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	mg/kg	1.3	27.1	26.9	29.3	28.9	103	103	75-125	1	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258271

QC Batch: MSV/4800

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 258271001, 258271002

METHOD BLANK: 76080

Matrix: Solid

Associated Lab Samples: 258271001, 258271002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/29/11 12:30	
Ethylbenzene	ug/kg	ND	3.0	06/29/11 12:30	
Methyl-tert-butyl ether	ug/kg	ND	3.0	06/29/11 12:30	
Toluene	ug/kg	ND	3.0	06/29/11 12:30	
Xylene (Total)	ug/kg	ND	9.0	06/29/11 12:30	
1,2-Dichloroethane-d4 (S)	%	102	80-143	06/29/11 12:30	
4-Bromofluorobenzene (S)	%	106	72-122	06/29/11 12:30	
Dibromofluoromethane (S)	%	101	80-136	06/29/11 12:30	
Toluene-d8 (S)	%	104	80-120	06/29/11 12:30	

LABORATORY CONTROL SAMPLE: 76081

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	52.3	105	75-133	
Ethylbenzene	ug/kg	50	50.4	101	68-131	
Methyl-tert-butyl ether	ug/kg	50	50.1	100	52-143	
Toluene	ug/kg	50	52.4	105	73-124	
Xylene (Total)	ug/kg	150	139	93	68-130	
1,2-Dichloroethane-d4 (S)	%			99	80-143	
4-Bromofluorobenzene (S)	%			107	72-122	
Dibromofluoromethane (S)	%			103	80-136	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 76082

76083

Parameter	Units	258236002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/kg	ND	50.8	54.5	61.0	60.3	119	110	68-124	1	
Ethylbenzene	ug/kg	ND	50.8	54.5	52.2	55.1	102	100	63-131	5	
Methyl-tert-butyl ether	ug/kg	ND	50.8	54.5	61.0	65.5	120	120	68-139	7	
Toluene	ug/kg	ND	50.8	54.5	55.8	57.5	110	105	61-126	3	
Xylene (Total)	ug/kg	ND	153	164	147	154	95	93	68-129	5	
1,2-Dichloroethane-d4 (S)	%						113	106	80-143		
4-Bromofluorobenzene (S)	%						109	107	72-122		
Dibromofluoromethane (S)	%						111	107	80-136		
Toluene-d8 (S)	%						96	101	80-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258271

QC Batch: PMST/1723

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 258271001, 258271002

SAMPLE DUPLICATE: 75959

Parameter	Units	258285001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	27.8	27.4	2	

SAMPLE DUPLICATE: 75960

Parameter	Units	258281003 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	4.2	4.0	4	

QUALIFIERS

Project: 2611255

Pace Project No.: 258271

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.

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

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.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 258271

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258271001	MW-14-25	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258271002	MW-15-25	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258271001	MW-14-25	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258271002	MW-15-25	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258271001	MW-14-25	EPA 3050	MPRP/2300	EPA 6010	ICP/2204
258271002	MW-15-25	EPA 3050	MPRP/2300	EPA 6010	ICP/2204
258271001	MW-14-25	EPA 8260	MSV/4800		
258271002	MW-15-25	EPA 8260	MSV/4800		
258271001	MW-14-25	ASTM D2974-87	PMST/1723		
258271002	MW-15-25	ASTM D2974-87	PMST/1723		

CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

258271

Section A Required Client Information: Company: ANTEA GROUP Address: 4806 14th Ave NE City: REDMOND, WA State: WA Zip: 98073 Phone: 206-460-4321 Fax: 206-460-4321 Requested Date/Time: 8/11/25		Section B Required Project Information: Report To: same Copy To: same Purchase Order No.: 2611255 Project Name: CDP-ELT Project Number: 2611255		Section C Invoice Information: Attention: same Company Name: same Address: same Pace Quote Reference: 21867129 Pace Project Manager: same Pace Profile #: 21867129		Page: 1 of 1 1467753 REGULATORY AGENCY NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER ☐ Site Location: WA STATE: WA	
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ITEM #	Section D Required Client Information Matrix Codes Drinking Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservative						Analysis Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB							H ₂ SO ₄	HNO ₃	HCl	NaOH	Methanol	Other					
1	MW-14-5	SL G				8-26-11	9:30				6											
2	MW-14-10						9:35				6											
3	MW-14-15						9:40				6											
4	MW-14-20						9:45				6											
5	MW-14-25						9:50				6											
6	MW-15-5						11:15				6											
7	MW-15-10						11:20				6											
8	MW-15-15						11:25				6											
9	MW-15-20						11:30				6											
10	MW-15-25						11:35				6											
11	MW-15-30						11:40				6											
12	TRIP BLANK										5											

ADDITIONAL COMMENTS HOLD all EPH & VPH analysis Don't Blank ANTEA 6-27-11 800 Buck Pace 6/27/14 080030 3.3		RELINQUISHED BY / AFFILIATION DATE TIME ACCEPTED BY / AFFILIATION DATE TIME		SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Dan Rowlands SIGNATURE of SAMPLER: Don't RLL DATE Signed (MM/DD/YY): 6-26-11		Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)	
--	--	---	--	---	--	--	--

Sample Container Count

CLIENT:

Antea



COC PAGE

1 of 1

COC ID#

1467753

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	DG9M	VG9W	VG9T	Comments
1										1		1	2	2	
2										↓		↓	↓	↓	
3										↓		↓	↓	↓	
4										↓		↓	↓	↓	
5										↓		↓	↓	↓	
6										↓		↓	↓	↓	
7										↓		↓	↓	↓	
8										↓		↓	↓	↓	
9										↓	1	3	↓	↓	
10										↓	1	3	↓	↓	
11										↓	1	3	↓	↓	
12										↓		1	↓	↓	Trip Blank? <u>Yes</u>

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic		I	Wipe/Swab		



Sample Condition Upon Receipt

Client Name: Antea

Project # 258271

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No

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

Thermometer Used 132013 or 101731982 or 226099 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.0, 3.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 06/27/11 CW

Temp should be above freezing $\leq 6^{\circ}\text{C}$

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☒ Yes ☐ No ☐ N/A	7. <u>5 days</u>
Follow Up / Hold Analysis Requested:	☒ Yes ☐ No ☐ N/A	8. <u>for all of MW-15-30</u>
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	9.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	10.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	11.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	15.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	16.
Trip Blanks Present:	☒ Yes ☐ No ☐ N/A	17.
Trip Blank Custody Seals Present	☐ Yes ☒ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: B. Taylor / D. Rowland Date/Time: 06/27/11 11:30

Comments/ Resolution:

Rush MW-14-25 & MW-15-25 only, will run MW-15-20 EPH/UPH
if MW-15-25 has hits. RSM
MW-15-30 will not be taken off hold. RSM

Project Manager Review:

RSM

Date: 06/27/11

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)

July 11, 2011

Bryan Taylor
Antea USA
4006 148th Ave. NE
Redmond, WA 98052

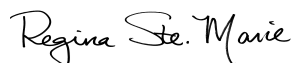
RE: Project: 2611255
Pace Project No.: 258272

Dear Bryan Taylor:

Enclosed are the analytical results for sample(s) received by the laboratory on June 27, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Thuan Bui, Antea USA
Eric Larsen, Antea USA
Megan MacDonald, Antea USA
Joe Rounds, Antea USA
Dan Rowlands, Antea USA
Hitomi Somics, Antea USA

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2611255

Pace Project No.: 258272

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C555

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2611255
Pace Project No.: 258272

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258272001	MW-14-5	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272002	MW-14-10	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272003	MW-14-15	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272004	MW-14-20	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272005	MW-15-5	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272006	MW-15-10	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272007	MW-15-15	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258272008	MW-15-20	NWTPH-Dx	AY1	4	PASI-S
		NWTPH-Gx	CC	3	PASI-S

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 258272

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258272010	TRIP BLANK	EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	9	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		NWTPH-Gx	CC	3	PASI-S
		EPA 8260	LPM	9	PASI-S

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258272

Method: NWTPH-Dx

Description: NWTPH-Dx GCS Silica Gel

Client: ELT_Antea Group, Washington

Date: July 11, 2011

General Information:

8 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258272

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: ELT_Antea Group, Washington

Date: July 11, 2011

General Information:

9 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258272

Method: EPA 6010

Description: 6010 MET ICP

Client: ELT_Antea Group, Washington

Date: July 11, 2011

General Information:

8 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258272

Method: EPA 8260

Description: 8260/5035A Volatile Organics

Client: ELT_Antea Group, Washington

Date: July 11, 2011

General Information:

9 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 258272

Sample: MW-14-5 **Lab ID:** 258272001 **Collected:** 06/26/11 09:30 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND	mg/kg	17.5	1	06/28/11 09:35	06/28/11 22:46		
Motor Oil Range SG	ND	mg/kg	70.2	1	06/28/11 09:35	06/28/11 22:46	64742-65-0	
n-Octacosane (S) SG	101	%	50-150	1	06/28/11 09:35	06/28/11 22:46	630-02-4	
o-Terphenyl (S) SG	89	%	50-150	1	06/28/11 09:35	06/28/11 22:46	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.1	1	06/28/11 12:40	06/28/11 23:17		
a,a,a-Trifluorotoluene (S)	126	%	50-150	1	06/28/11 12:40	06/28/11 23:17	98-08-8	
4-Bromofluorobenzene (S)	72	%	50-150	1	06/28/11 12:40	06/28/11 23:17	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	2.6	mg/kg	0.99	1	06/29/11 07:41	06/30/11 18:33	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.6	1		06/29/11 18:12	71-43-2	
Ethylbenzene	ND	ug/kg	2.6	1		06/29/11 18:12	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.6	1		06/29/11 18:12	1634-04-4	
Toluene	ND	ug/kg	2.6	1		06/29/11 18:12	108-88-3	
Xylene (Total)	ND	ug/kg	7.8	1		06/29/11 18:12	1330-20-7	
Dibromofluoromethane (S)	104	%	80-136	1		06/29/11 18:12	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/29/11 18:12	2037-26-5	
4-Bromofluorobenzene (S)	107	%	72-122	1		06/29/11 18:12	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	80-143	1		06/29/11 18:12	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	9.0	%	0.10	1		06/28/11 13:02		

Sample: MW-14-10 **Lab ID:** 258272002 **Collected:** 06/26/11 09:35 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND	mg/kg	16.1	1	06/28/11 09:35	06/29/11 00:17		
Motor Oil Range SG	ND	mg/kg	64.4	1	06/28/11 09:35	06/29/11 00:17	64742-65-0	
n-Octacosane (S) SG	100	%	50-150	1	06/28/11 09:35	06/29/11 00:17	630-02-4	
o-Terphenyl (S) SG	89	%	50-150	1	06/28/11 09:35	06/29/11 00:17	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	4.8	1	06/28/11 12:40	06/29/11 00:28		
a,a,a-Trifluorotoluene (S)	121	%	50-150	1	06/28/11 12:40	06/29/11 00:28	98-08-8	
4-Bromofluorobenzene (S)	69	%	50-150	1	06/28/11 12:40	06/29/11 00:28	460-00-4	



ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258272

Sample: MW-14-10 **Lab ID:** 258272002 **Collected:** 06/26/11 09:35 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.7	mg/kg	1.0	1	06/29/11 07:41	06/30/11 18:36	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.8	1		06/30/11 13:35	71-43-2	
Ethylbenzene	ND	ug/kg	2.8	1		06/30/11 13:35	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.8	1		06/30/11 13:35	1634-04-4	
Toluene	ND	ug/kg	2.8	1		06/30/11 13:35	108-88-3	
Xylene (Total)	ND	ug/kg	8.3	1		06/30/11 13:35	1330-20-7	
Dibromofluoromethane (S)	102	%	80-136	1		06/30/11 13:35	1868-53-7	
Toluene-d8 (S)	100	%	80-120	1		06/30/11 13:35	2037-26-5	
4-Bromofluorobenzene (S)	107	%	72-122	1		06/30/11 13:35	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	80-143	1		06/30/11 13:35	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	7.5	%	0.10	1		06/28/11 13:03		

Sample: MW-14-15 **Lab ID:** 258272003 **Collected:** 06/26/11 09:40 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND	mg/kg	16.3	1	06/28/11 09:35	06/29/11 00:39		
Motor Oil Range SG	ND	mg/kg	65.1	1	06/28/11 09:35	06/29/11 00:39	64742-65-0	
n-Octacosane (S) SG	103	%	50-150	1	06/28/11 09:35	06/29/11 00:39	630-02-4	
o-Terphenyl (S) SG	90	%	50-150	1	06/28/11 09:35	06/29/11 00:39	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.1	1	06/28/11 12:40	06/29/11 00:52		
a,a,a-Trifluorotoluene (S)	127	%	50-150	1	06/28/11 12:40	06/29/11 00:52	98-08-8	
4-Bromofluorobenzene (S)	73	%	50-150	1	06/28/11 12:40	06/29/11 00:52	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.3	mg/kg	1.0	1	06/29/11 07:41	06/30/11 18:40	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.7	1		06/30/11 13:52	71-43-2	
Ethylbenzene	ND	ug/kg	2.7	1		06/30/11 13:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.7	1		06/30/11 13:52	1634-04-4	
Toluene	ND	ug/kg	2.7	1		06/30/11 13:52	108-88-3	
Xylene (Total)	ND	ug/kg	8.2	1		06/30/11 13:52	1330-20-7	
Dibromofluoromethane (S)	100	%	80-136	1		06/30/11 13:52	1868-53-7	
Toluene-d8 (S)	101	%	80-120	1		06/30/11 13:52	2037-26-5	
4-Bromofluorobenzene (S)	106	%	72-122	1		06/30/11 13:52	460-00-4	

Date: 07/11/2011 04:11 PM

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258272

Sample: MW-14-15 **Lab ID:** 258272003 **Collected:** 06/26/11 09:40 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
1,2-Dichloroethane-d4 (S)	102 %		80-143	1		06/30/11 13:52	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	5.9 %		0.10	1		06/28/11 13:03		

Sample: MW-14-20 **Lab ID:** 258272004 **Collected:** 06/26/11 09:45 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range SG	ND mg/kg		16.8	1	06/28/11 09:35	06/29/11 01:02		
Motor Oil Range SG	ND mg/kg		67.2	1	06/28/11 09:35	06/29/11 01:02	64742-65-0	
n-Octacosane (S) SG	104 %		50-150	1	06/28/11 09:35	06/29/11 01:02	630-02-4	
o-Terphenyl (S) SG	91 %		50-150	1	06/28/11 09:35	06/29/11 01:02	84-15-1	
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND mg/kg		4.7	1	06/28/11 12:40	06/29/11 01:15		
a,a,a-Trifluorotoluene (S)	128 %		50-150	1	06/28/11 12:40	06/29/11 01:15	98-08-8	
4-Bromofluorobenzene (S)	72 %		50-150	1	06/28/11 12:40	06/29/11 01:15	460-00-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	1.2 mg/kg		0.99	1	06/29/11 07:41	06/30/11 18:44	7439-92-1	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND ug/kg		2.5	1		06/30/11 14:09	71-43-2	
Ethylbenzene	ND ug/kg		2.5	1		06/30/11 14:09	100-41-4	
Methyl-tert-butyl ether	ND ug/kg		2.5	1		06/30/11 14:09	1634-04-4	
Toluene	ND ug/kg		2.5	1		06/30/11 14:09	108-88-3	
Xylene (Total)	ND ug/kg		7.4	1		06/30/11 14:09	1330-20-7	
Dibromofluoromethane (S)	101 %		80-136	1		06/30/11 14:09	1868-53-7	
Toluene-d8 (S)	100 %		80-120	1		06/30/11 14:09	2037-26-5	
4-Bromofluorobenzene (S)	106 %		72-122	1		06/30/11 14:09	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		80-143	1		06/30/11 14:09	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	7.7 %		0.10	1		06/28/11 13:06		

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258272

Sample: MW-15-5 **Lab ID:** 258272005 **Collected:** 06/26/11 11:15 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND	mg/kg	16.6	1	06/28/11 09:35	06/29/11 01:25		
Motor Oil Range SG	ND	mg/kg	66.4	1	06/28/11 09:35	06/29/11 01:25	64742-65-0	
n-Octacosane (S) SG	103	%	50-150	1	06/28/11 09:35	06/29/11 01:25	630-02-4	
o-Terphenyl (S) SG	69	%	50-150	1	06/28/11 09:35	06/29/11 01:25	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	5.4	1	06/28/11 12:40	06/29/11 01:40		
a,a,a-Trifluorotoluene (S)	126	%	50-150	1	06/28/11 12:40	06/29/11 01:40	98-08-8	
4-Bromofluorobenzene (S)	70	%	50-150	1	06/28/11 12:40	06/29/11 01:40	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	2.0	mg/kg	0.99	1	06/29/11 07:41	06/30/11 18:55	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.7	1		06/30/11 14:26	71-43-2	
Ethylbenzene	ND	ug/kg	2.7	1		06/30/11 14:26	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.7	1		06/30/11 14:26	1634-04-4	
Toluene	ND	ug/kg	2.7	1		06/30/11 14:26	108-88-3	
Xylene (Total)	ND	ug/kg	8.1	1		06/30/11 14:26	1330-20-7	
Dibromofluoromethane (S)	101	%	80-136	1		06/30/11 14:26	1868-53-7	
Toluene-d8 (S)	101	%	80-120	1		06/30/11 14:26	2037-26-5	
4-Bromofluorobenzene (S)	106	%	72-122	1		06/30/11 14:26	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	80-143	1		06/30/11 14:26	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	9.0	%	0.10	1		06/28/11 13:07		

Sample: MW-15-10 **Lab ID:** 258272006 **Collected:** 06/26/11 11:20 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND	mg/kg	16.4	1	06/28/11 09:35	06/29/11 01:47		
Motor Oil Range SG	ND	mg/kg	65.7	1	06/28/11 09:35	06/29/11 01:47	64742-65-0	
n-Octacosane (S) SG	105	%	50-150	1	06/28/11 09:35	06/29/11 01:47	630-02-4	
o-Terphenyl (S) SG	91	%	50-150	1	06/28/11 09:35	06/29/11 01:47	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	4.9	1	06/28/11 12:40	06/29/11 02:04		
a,a,a-Trifluorotoluene (S)	126	%	50-150	1	06/28/11 12:40	06/29/11 02:04	98-08-8	
4-Bromofluorobenzene (S)	72	%	50-150	1	06/28/11 12:40	06/29/11 02:04	460-00-4	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 258272

Sample: MW-15-10 **Lab ID: 258272006** Collected: 06/26/11 11:20 Received: 06/27/11 08:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.5	mg/kg	1.0	1	06/29/11 07:41	06/30/11 18:59	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.8	1		06/30/11 14:43	71-43-2	
Ethylbenzene	ND	ug/kg	2.8	1		06/30/11 14:43	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.8	1		06/30/11 14:43	1634-04-4	
Toluene	ND	ug/kg	2.8	1		06/30/11 14:43	108-88-3	
Xylene (Total)	ND	ug/kg	8.4	1		06/30/11 14:43	1330-20-7	
Dibromofluoromethane (S)	101	%	80-136	1		06/30/11 14:43	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/30/11 14:43	2037-26-5	
4-Bromofluorobenzene (S)	106	%	72-122	1		06/30/11 14:43	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	80-143	1		06/30/11 14:43	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	6.2	%	0.10	1		06/28/11 13:07		

Sample: MW-15-15 **Lab ID: 258272007** Collected: 06/26/11 11:25 Received: 06/27/11 08:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range SG	ND	mg/kg	16.3	1	06/28/11 09:35	06/29/11 02:10		
Motor Oil Range SG	ND	mg/kg	65.2	1	06/28/11 09:35	06/29/11 02:10	64742-65-0	
n-Octacosane (S) SG	105	%	50-150	1	06/28/11 09:35	06/29/11 02:10	630-02-4	
o-Terphenyl (S) SG	91	%	50-150	1	06/28/11 09:35	06/29/11 02:10	84-15-1	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx								
Gasoline Range Organics	ND	mg/kg	4.9	1	06/28/11 12:40	06/29/11 02:27		
a,a,a-Trifluorotoluene (S)	102	%	50-150	1	06/28/11 12:40	06/29/11 02:27	98-08-8	
4-Bromofluorobenzene (S)	52	%	50-150	1	06/28/11 12:40	06/29/11 02:27	460-00-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	1.6	mg/kg	0.95	1	06/29/11 07:41	06/30/11 19:03	7439-92-1	
8260/5035A Volatile Organics Analytical Method: EPA 8260								
Benzene	ND	ug/kg	2.8	1		06/30/11 15:00	71-43-2	
Ethylbenzene	ND	ug/kg	2.8	1		06/30/11 15:00	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	2.8	1		06/30/11 15:00	1634-04-4	
Toluene	ND	ug/kg	2.8	1		06/30/11 15:00	108-88-3	
Xylene (Total)	ND	ug/kg	8.4	1		06/30/11 15:00	1330-20-7	
Dibromofluoromethane (S)	101	%	80-136	1		06/30/11 15:00	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/30/11 15:00	2037-26-5	
4-Bromofluorobenzene (S)	106	%	72-122	1		06/30/11 15:00	460-00-4	

Date: 07/11/2011 04:11 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258272

Sample: MW-15-15 **Lab ID:** 258272007 **Collected:** 06/26/11 11:25 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
1,2-Dichloroethane-d4 (S)	103 %		80-143	1		06/30/11 15:00	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	5.6 %		0.10	1		06/28/11 13:08		

Sample: MW-15-20 **Lab ID:** 258272008 **Collected:** 06/26/11 11:30 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range SG	ND mg/kg		17.4	1	06/28/11 09:35	06/29/11 02:33		
Motor Oil Range SG	ND mg/kg		69.6	1	06/28/11 09:35	06/29/11 02:33	64742-65-0	
n-Octacosane (S) SG	104 %		50-150	1	06/28/11 09:35	06/29/11 02:33	630-02-4	
o-Terphenyl (S) SG	90 %		50-150	1	06/28/11 09:35	06/29/11 02:33	84-15-1	
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND mg/kg		4.7	1	06/28/11 12:40	06/29/11 02:52		
a,a,a-Trifluorotoluene (S)	113 %		50-150	1	06/28/11 12:40	06/29/11 02:52	98-08-8	
4-Bromofluorobenzene (S)	60 %		50-150	1	06/28/11 12:40	06/29/11 02:52	460-00-4	

6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050

Lead 1.5 mg/kg 0.96 1 06/29/11 07:41 06/30/11 19:06 7439-92-1

8260/5035A Volatile Organics Analytical Method: EPA 8260

Benzene	ND ug/kg		2.4	1		06/30/11 15:18	71-43-2	
Ethylbenzene	ND ug/kg		2.4	1		06/30/11 15:18	100-41-4	
Methyl-tert-butyl ether	ND ug/kg		2.4	1		06/30/11 15:18	1634-04-4	
Toluene	ND ug/kg		2.4	1		06/30/11 15:18	108-88-3	
Xylene (Total)	ND ug/kg		7.2	1		06/30/11 15:18	1330-20-7	
Dibromofluoromethane (S)	102 %		80-136	1		06/30/11 15:18	1868-53-7	
Toluene-d8 (S)	101 %		80-120	1		06/30/11 15:18	2037-26-5	
4-Bromofluorobenzene (S)	105 %		72-122	1		06/30/11 15:18	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		80-143	1		06/30/11 15:18	17060-07-0	

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture 8.6 % 0.10 1 06/28/11 13:08

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258272

Sample: TRIP BLANK **Lab ID:** 258272010 **Collected:** 06/26/11 00:00 **Received:** 06/27/11 08:00 **Matrix:** Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx Preparation Method: NWTPH-Gx						
Gasoline Range Organics	ND	mg/kg	5.0	1	06/28/11 12:40	06/28/11 20:53		
a,a,a-Trifluorotoluene (S)	122	%	50-150	1	06/28/11 12:40	06/28/11 20:53	98-08-8	
4-Bromofluorobenzene (S)	67	%	50-150	1	06/28/11 12:40	06/28/11 20:53	460-00-4	
8260/5035A Volatile Organics		Analytical Method: EPA 8260						
Benzene	ND	ug/kg	3.0	1		06/30/11 13:18	71-43-2	
Ethylbenzene	ND	ug/kg	3.0	1		06/30/11 13:18	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	3.0	1		06/30/11 13:18	1634-04-4	
Toluene	ND	ug/kg	3.0	1		06/30/11 13:18	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		06/30/11 13:18	1330-20-7	
Dibromofluoromethane (S)	100	%	80-136	1		06/30/11 13:18	1868-53-7	
Toluene-d8 (S)	103	%	80-120	1		06/30/11 13:18	2037-26-5	
4-Bromofluorobenzene (S)	107	%	72-122	1		06/30/11 13:18	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	80-143	1		06/30/11 13:18	17060-07-0	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258272

QC Batch: OEXT/3948

Analysis Method: NWTPH-Dx

QC Batch Method: EPA 3546

Analysis Description: NWTPH-Dx GCS

Associated Lab Samples: 258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008

METHOD BLANK: 75914

Matrix: Solid

Associated Lab Samples: 258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range SG	mg/kg	ND	16.0	06/28/11 21:15	
Motor Oil Range SG	mg/kg	ND	64.0	06/28/11 21:15	
n-Octacosane (S) SG	%	102	50-150	06/28/11 21:15	
o-Terphenyl (S) SG	%	90	50-150	06/28/11 21:15	

LABORATORY CONTROL SAMPLE: 75915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range SG	mg/kg	500	484	97	56-124	
Motor Oil Range SG	mg/kg	500	518	104	50-150	
n-Octacosane (S) SG	%			102	50-150	
o-Terphenyl (S) SG	%			137	50-150	

SAMPLE DUPLICATE: 75916

Parameter	Units	258272001 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/kg	ND	ND		
Motor Oil Range SG	mg/kg	ND	ND		
n-Octacosane (S) SG	%	101	102	.7	
o-Terphenyl (S) SG	%	89	88	4	

SAMPLE DUPLICATE: 75937

Parameter	Units	258282001 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/kg	ND	ND		
Motor Oil Range SG	mg/kg	ND	ND		
n-Octacosane (S) SG	%	105	107	2	
o-Terphenyl (S) SG	%	92	94	2	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258272

QC Batch:	GCV/2325	Analysis Method:	NWTPH-Gx
QC Batch Method:	NWTPH-Gx	Analysis Description:	NWTPH-Gx Solid GCV
Associated Lab Samples:	258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008, 258272010		

METHOD BLANK: 75956 Matrix: Solid

Associated Lab Samples: 258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008, 258272010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	5.0	06/28/11 20:30	
4-Bromofluorobenzene (S)	%	60	50-150	06/28/11 20:30	
a,a,a-Trifluorotoluene (S)	%	111	50-150	06/28/11 20:30	

LABORATORY CONTROL SAMPLE: 75957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	12.5	11.6	93	54-156	
4-Bromofluorobenzene (S)	%			65	50-150	
a,a,a-Trifluorotoluene (S)	%			120	50-150	

SAMPLE DUPLICATE: 76066

Parameter	Units	258213006 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	2.1J		
4-Bromofluorobenzene (S)	%	75	73	2	
a,a,a-Trifluorotoluene (S)	%	126	127	.6	

SAMPLE DUPLICATE: 76067

Parameter	Units	258272001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	.46J		
4-Bromofluorobenzene (S)	%	72	60	19	
a,a,a-Trifluorotoluene (S)	%	126	107	17	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258272

QC Batch:	MPRP/2301	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples:	258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008		

METHOD BLANK:	76030	Matrix:	Solid
Associated Lab Samples:	258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	1.0	06/30/11 17:49	

LABORATORY CONTROL SAMPLE: 76031

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	25	26.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 76032 76033

Parameter	Units	258254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	mg/kg	1.9	24.2	24.2	25.9	25.9	99	99	75-125	0	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258272

QC Batch: MSV/4800

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 258272001

METHOD BLANK: 76080

Matrix: Solid

Associated Lab Samples: 258272001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/29/11 12:30	
Ethylbenzene	ug/kg	ND	3.0	06/29/11 12:30	
Methyl-tert-butyl ether	ug/kg	ND	3.0	06/29/11 12:30	
Toluene	ug/kg	ND	3.0	06/29/11 12:30	
Xylene (Total)	ug/kg	ND	9.0	06/29/11 12:30	
1,2-Dichloroethane-d4 (S)	%	102	80-143	06/29/11 12:30	
4-Bromofluorobenzene (S)	%	106	72-122	06/29/11 12:30	
Dibromofluoromethane (S)	%	101	80-136	06/29/11 12:30	
Toluene-d8 (S)	%	104	80-120	06/29/11 12:30	

LABORATORY CONTROL SAMPLE: 76081

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	52.3	105	75-133	
Ethylbenzene	ug/kg	50	50.4	101	68-131	
Methyl-tert-butyl ether	ug/kg	50	50.1	100	52-143	
Toluene	ug/kg	50	52.4	105	73-124	
Xylene (Total)	ug/kg	150	139	93	68-130	
1,2-Dichloroethane-d4 (S)	%			99	80-143	
4-Bromofluorobenzene (S)	%			107	72-122	
Dibromofluoromethane (S)	%			103	80-136	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 76082

76083

Parameter	Units	258236002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/kg	ND	50.8	54.5	61.0	60.3	119	110	68-124	1	
Ethylbenzene	ug/kg	ND	50.8	54.5	52.2	55.1	102	100	63-131	5	
Methyl-tert-butyl ether	ug/kg	ND	50.8	54.5	61.0	65.5	120	120	68-139	7	
Toluene	ug/kg	ND	50.8	54.5	55.8	57.5	110	105	61-126	3	
Xylene (Total)	ug/kg	ND	153	164	147	154	95	93	68-129	5	
1,2-Dichloroethane-d4 (S)	%						113	106	80-143		
4-Bromofluorobenzene (S)	%						109	107	72-122		
Dibromofluoromethane (S)	%						111	107	80-136		
Toluene-d8 (S)	%						96	101	80-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258272

QC Batch: MSV/4808

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008, 258272010

METHOD BLANK: 76183

Matrix: Solid

Associated Lab Samples: 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008, 258272010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	3.0	06/30/11 13:01	
Ethylbenzene	ug/kg	ND	3.0	06/30/11 13:01	
Methyl-tert-butyl ether	ug/kg	ND	3.0	06/30/11 13:01	
Toluene	ug/kg	ND	3.0	06/30/11 13:01	
Xylene (Total)	ug/kg	ND	9.0	06/30/11 13:01	
1,2-Dichloroethane-d4 (S)	%	98	80-143	06/30/11 13:01	
4-Bromofluorobenzene (S)	%	108	72-122	06/30/11 13:01	
Dibromofluoromethane (S)	%	98	80-136	06/30/11 13:01	
Toluene-d8 (S)	%	104	80-120	06/30/11 13:01	

LABORATORY CONTROL SAMPLE: 76184

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	48.5	97	75-133	
Ethylbenzene	ug/kg	50	43.7	87	68-131	
Methyl-tert-butyl ether	ug/kg	50	43.4	87	52-143	
Toluene	ug/kg	50	44.0	88	73-124	
Xylene (Total)	ug/kg	150	117	78	68-130	
1,2-Dichloroethane-d4 (S)	%			99	80-143	
4-Bromofluorobenzene (S)	%			107	72-122	
Dibromofluoromethane (S)	%			100	80-136	
Toluene-d8 (S)	%			104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 76421

76422

Parameter	Units	258272002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/kg	ND	48.6	45.1	52.6	48.5	106	105	68-124	8	
Ethylbenzene	ug/kg	ND	48.6	45.1	47.9	43.3	97	95	63-131	10	
Methyl-tert-butyl ether	ug/kg	ND	48.6	45.1	47.7	50.5	98	112	68-139	6	
Toluene	ug/kg	ND	48.6	45.1	48.5	44.4	100	98	61-126	9	
Xylene (Total)	ug/kg	ND	146	135	130	119	88	87	68-129	9	
1,2-Dichloroethane-d4 (S)	%						101	108	80-143		
4-Bromofluorobenzene (S)	%						110	107	72-122		
Dibromofluoromethane (S)	%						102	105	80-136		
Toluene-d8 (S)	%						103	103	80-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258272

QC Batch: PMST/1724

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 258272001, 258272002, 258272003, 258272004, 258272005, 258272006, 258272007, 258272008

SAMPLE DUPLICATE: 75961

Parameter	Units	258272001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	9.0	9.0	.7	

SAMPLE DUPLICATE: 75962

Parameter	Units	258282003 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	15.7	15.3	3	

QUALIFIERS

Project: 2611255

Pace Project No.: 258272

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.

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

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.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 258272

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258272001	MW-14-5	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272002	MW-14-10	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272003	MW-14-15	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272004	MW-14-20	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272005	MW-15-5	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272006	MW-15-10	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272007	MW-15-15	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272008	MW-15-20	EPA 3546	OEXT/3948	NWTPH-Dx	GCSV/2653
258272001	MW-14-5	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272002	MW-14-10	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272003	MW-14-15	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272004	MW-14-20	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272005	MW-15-5	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272006	MW-15-10	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272007	MW-15-15	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272008	MW-15-20	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272010	TRIP BLANK	NWTPH-Gx	GCV/2325	NWTPH-Gx	GCV/2326
258272001	MW-14-5	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272002	MW-14-10	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272003	MW-14-15	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272004	MW-14-20	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272005	MW-15-5	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272006	MW-15-10	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272007	MW-15-15	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272008	MW-15-20	EPA 3050	MPRP/2301	EPA 6010	ICP/2205
258272001	MW-14-5	EPA 8260	MSV/4800		
258272002	MW-14-10	EPA 8260	MSV/4808		
258272003	MW-14-15	EPA 8260	MSV/4808		
258272004	MW-14-20	EPA 8260	MSV/4808		
258272005	MW-15-5	EPA 8260	MSV/4808		
258272006	MW-15-10	EPA 8260	MSV/4808		
258272007	MW-15-15	EPA 8260	MSV/4808		
258272008	MW-15-20	EPA 8260	MSV/4808		
258272010	TRIP BLANK	EPA 8260	MSV/4808		
258272001	MW-14-5	ASTM D2974-87	PMST/1724		
258272002	MW-14-10	ASTM D2974-87	PMST/1724		
258272003	MW-14-15	ASTM D2974-87	PMST/1724		
258272004	MW-14-20	ASTM D2974-87	PMST/1724		
258272005	MW-15-5	ASTM D2974-87	PMST/1724		
258272006	MW-15-10	ASTM D2974-87	PMST/1724		
258272007	MW-15-15	ASTM D2974-87	PMST/1724		
258272008	MW-15-20	ASTM D2974-87	PMST/1724		



Sample Container Count

CLIENT: AnteaCOC PAGE 1 of 1COC ID# 1467753

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	DG9M	VG9W	VG9T	Comments
1										1		1	2	2	
2										↓		↓	↓	↓	
3															
4															
5															
6															
7															
8												↓			
9											1	3			
10											1	3			
11										↓	1	3			
12												1	↓	↓	Trip Blank? <u>Yes</u>

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFV	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic		I	Wipe/Swab		



Sample Condition Upon Receipt

Client Name: Antea

Project # 258272

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No

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

Thermometer Used 132013 or 101731962 or 226099 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.0, 3.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 06/27/11 CW

Temp should be above freezing $\leq 6^{\circ}\text{C}$

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☒ Yes ☐ No ☐ N/A	7. <u>5 days</u>
Follow Up / Hold Analysis Requested:	☒ Yes ☐ No ☐ N/A	8. <u>for all of MW-15-30</u>
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	9.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	10.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	11.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	15.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	16.
Trip Blanks Present:	☒ Yes ☐ No ☐ N/A	17.
Trip Blank Custody Seals Present	☐ Yes ☒ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Person Contacted: B. Taylor / D. Rowlands Date/Time: 06/27/11 11:30

Field Data Required? Y / N

Comments/ Resolution:

Rush MW-14-25 & MW-15-25 only, will run MW-15-20 EPH/VPH if MW-15-25 has hits. RSM
MW-15-30 will not be taken off hold. RSM

Project Manager Review:

RSM

Date: 06/27/11

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)

August 30, 2011

Bryan Taylor
Antea USA
4006 148th Ave. NE
Redmond, WA 98052

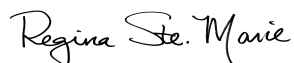
RE: Project: 2611255
Pace Project No.: 258865

Dear Bryan Taylor:

Enclosed are the analytical results for sample(s) received by the laboratory on August 16, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Thuan Bui, Antea USA
Eric Larsen, Antea USA
Megan MacDonald, Antea USA
Joe Rounds, Antea USA
Dan Rowlands, Antea USA
Hitomi Somics, Antea USA



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2611255

Pace Project No.: 258865

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C555

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 258865

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258865001	MW-14_20110813	EPA 8011	AY1	2	PASI-S
		NWTPH-Dx	DMT	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	ERB, LNH	10	PASI-S
		NWTPH-Gx	LNH	2	PASI-S
258865002	MW-15_20110813	EPA 8011	AY1	2	PASI-S
		NWTPH-Dx	DMT	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		NWTPH-Gx	LPM	2	PASI-S

REPORT OF LABORATORY ANALYSIS

Page 3 of 19

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258865

Method: EPA 8011

Description: 8011 GCS EDB and DBCP

Client: ELT_Antea Group, Washington

Date: August 30, 2011

General Information:

2 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258865

Method: NWTPH-Dx

Description: NWTPH-Dx GCS Silica Gel

Client: ELT_Antea Group, Washington

Date: August 30, 2011

General Information:

2 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258865

Method: EPA 6010

Description: 6010 MET ICP

Client: ELT_Antea Group, Washington

Date: August 30, 2011

General Information:

2 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258865

Method: EPA 5030B/8260

Description: 8260 MSV

Client: ELT_Antea Group, Washington

Date: August 30, 2011

General Information:

2 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 258865

Method: NWTPH-Gx

Description: NWTPH-Gx MSV

Client: ELT_Antea Group, Washington

Date: August 30, 2011

General Information:

2 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

Batch Comments:

A sample duplicate was not performed for this batch due to insufficient sample volume.

- QC Batch: MSV / 5267

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

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258865

Sample: MW-14_20110813		Lab ID: 258865001	Collected: 08/16/11 06:30	Received: 08/16/11 07:35	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	08/25/11 17:25	08/26/11 19:35	106-93-4	
4-Bromofluorobenzene (S)	101 %		61-159	1	08/25/11 17:25	08/26/11 19:35	460-00-4	
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	0.54 mg/L		0.076	1	08/22/11 10:30	08/23/11 15:18		
Motor Oil Range SG	ND mg/L		0.38	1	08/22/11 10:30	08/23/11 15:18	64742-65-0	
n-Octacosane (S) SG	100 %		50-150	1	08/22/11 10:30	08/23/11 15:18	630-02-4	
o-Terphenyl (S) SG	87 %		50-150	1	08/22/11 10:30	08/23/11 15:18	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	61.3 ug/L		10.0	1	08/26/11 08:44	08/29/11 13:44	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	172 ug/L		1.0	1		08/21/11 06:17	71-43-2	
1,2-Dichloroethane	ND ug/L		1.0	1		08/21/11 06:17	107-06-2	
Ethylbenzene	731 ug/L		25.0	25		08/25/11 06:28	100-41-4	
Methyl-tert-butyl ether	ND ug/L		1.0	1		08/21/11 06:17	1634-04-4	
Toluene	50.4 ug/L		1.0	1		08/21/11 06:17	108-88-3	
Xylene (Total)	2740 ug/L		75.0	25		08/25/11 06:28	1330-20-7	
4-Bromofluorobenzene (S)	92 %		79-121	1		08/21/11 06:17	460-00-4	
Dibromofluoromethane (S)	102 %		81-119	1		08/21/11 06:17	1868-53-7	
1,2-Dichloroethane-d4 (S)	103 %		72-127	1		08/21/11 06:17	17060-07-0	
Toluene-d8 (S)	98 %		77-120	1		08/21/11 06:17	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	17900 ug/L		1250	25		08/25/11 06:28		
4-Bromofluorobenzene (S)	117 %		50-150	25		08/25/11 06:28	460-00-4	

Sample: MW-15_20110813		Lab ID: 258865002	Collected: 08/16/11 06:40	Received: 08/16/11 07:35	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	08/25/11 17:25	08/26/11 21:10	106-93-4	
4-Bromofluorobenzene (S)	100 %		61-159	1	08/25/11 17:25	08/26/11 21:10	460-00-4	
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND mg/L		0.080	1	08/22/11 10:30	08/23/11 15:36		
Motor Oil Range SG	ND mg/L		0.40	1	08/22/11 10:30	08/23/11 15:36	64742-65-0	
n-Octacosane (S) SG	100 %		50-150	1	08/22/11 10:30	08/23/11 15:36	630-02-4	
o-Terphenyl (S) SG	88 %		50-150	1	08/22/11 10:30	08/23/11 15:36	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	41.4 ug/L		10.0	1	08/26/11 08:44	08/29/11 13:55	7439-92-1	

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 258865

Sample: MW-15_20110813		Lab ID: 258865002	Collected: 08/16/11 06:40	Received: 08/16/11 07:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		1.0	1		08/26/11 03:51	71-43-2	
1,2-Dichloroethane	ND ug/L		1.0	1		08/26/11 03:51	107-06-2	
Ethylbenzene	ND ug/L		1.0	1		08/26/11 03:51	100-41-4	
Methyl-tert-butyl ether	ND ug/L		1.0	1		08/26/11 03:51	1634-04-4	
Toluene	ND ug/L		1.0	1		08/26/11 03:51	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		08/26/11 03:51	1330-20-7	
4-Bromofluorobenzene (S)	97 %		79-121	1		08/26/11 03:51	460-00-4	
Dibromofluoromethane (S)	93 %		81-119	1		08/26/11 03:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	82 %		72-127	1		08/26/11 03:51	17060-07-0	
Toluene-d8 (S)	100 %		77-120	1		08/26/11 03:51	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	62.7 ug/L		50.0	1		08/30/11 08:01		
4-Bromofluorobenzene (S)	95 %		50-150	1		08/30/11 08:01	460-00-4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch: OEXT/4286

Analysis Method: EPA 8011

QC Batch Method: EPA 8011

Analysis Description: GCS 8011 EDB DBCP

Associated Lab Samples: 258865001, 258865002

METHOD BLANK: 83603

Matrix: Water

Associated Lab Samples: 258865001, 258865002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.010	08/26/11 18:31	
4-Bromofluorobenzene (S)	%	106	61-159	08/26/11 18:31	

LABORATORY CONTROL SAMPLE: 83604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.25	101	70-149	
4-Bromofluorobenzene (S)	%			104	61-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83605

83606

Parameter	Units	258865001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.26	.25	0.27	0.26	105	103	70-149	3	
4-Bromofluorobenzene (S)	%						110	106	61-159		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch: OEXT/4253

Analysis Method: NWTPH-Dx

QC Batch Method: EPA 3510

Analysis Description: NWTPH-Dx GCS SG

Associated Lab Samples: 258865001, 258865002

METHOD BLANK: 82886

Matrix: Water

Associated Lab Samples: 258865001, 258865002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range SG	mg/L	ND	0.080	08/23/11 13:52	
Motor Oil Range SG	mg/L	ND	0.40	08/23/11 13:52	
n-Octacosane (S) SG	%	104	50-150	08/23/11 13:52	
o-Terphenyl (S) SG	%	90	50-150	08/23/11 13:52	

LABORATORY CONTROL SAMPLE: 82887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range SG	mg/L	5	4.2	84	51-147	
Motor Oil Range SG	mg/L	5	4.9	98	20-160	
n-Octacosane (S) SG	%			104	50-150	
o-Terphenyl (S) SG	%			89	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82888

82889

Parameter	Units	258871004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Range SG	mg/L	ND	4.7	4.7	3.9	4.1	82	86	50-150	5	
Motor Oil Range SG	mg/L	ND	4.7	4.7	4.7	4.7	98	99	20-160	1	
n-Octacosane (S) SG	%						106	104	50-150		
o-Terphenyl (S) SG	%						90	88	50-150		

SAMPLE DUPLICATE: 82890

Parameter	Units	258887002 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/L	0.40	0.41	2	
Motor Oil Range SG	mg/L	ND	ND		
n-Octacosane (S) SG	%	105	107	2	
o-Terphenyl (S) SG	%	92	91	1	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch: MPRP/2435

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET

Associated Lab Samples: 258865001, 258865002

METHOD BLANK: 83618

Matrix: Water

Associated Lab Samples: 258865001, 258865002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	10.0	08/29/11 13:12	

LABORATORY CONTROL SAMPLE: 83619

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	500	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83620

83621

Parameter	Units	258851001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	ug/L	ND	500	500	476	494	94	97	75-125	4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch:	MSV/5190	Analysis Method:	EPA 5030B/8260
QC Batch Method:	EPA 5030B/8260	Analysis Description:	8260 MSV Water 10 mL Purge
Associated Lab Samples:	258865001		

METHOD BLANK: 82798 Matrix: Water

Associated Lab Samples: 258865001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	08/20/11 23:55	
Benzene	ug/L	ND	1.0	08/20/11 23:55	
Ethylbenzene	ug/L	ND	1.0	08/20/11 23:55	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/20/11 23:55	
Toluene	ug/L	ND	1.0	08/20/11 23:55	
Xylene (Total)	ug/L	ND	3.0	08/20/11 23:55	
1,2-Dichloroethane-d4 (S)	%	103	72-127	08/20/11 23:55	
4-Bromofluorobenzene (S)	%	99	79-121	08/20/11 23:55	
Dibromofluoromethane (S)	%	100	81-119	08/20/11 23:55	
Toluene-d8 (S)	%	101	77-120	08/20/11 23:55	

LABORATORY CONTROL SAMPLE: 82799

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.7	99	63-131	
Benzene	ug/L	20	18.2	91	66-123	
Ethylbenzene	ug/L	20	18.6	93	67-122	
Methyl-tert-butyl ether	ug/L	20	19.5	98	65-138	
Toluene	ug/L	20	18.2	91	64-118	
Xylene (Total)	ug/L	60	54.6	91	68-122	
1,2-Dichloroethane-d4 (S)	%			102	72-127	
4-Bromofluorobenzene (S)	%			97	79-121	
Dibromofluoromethane (S)	%			102	81-119	
Toluene-d8 (S)	%			102	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83284 83285

Parameter	Units	258859001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	20.8	21.4	104	107	60-138	3	
Benzene	ug/L	ND	20	20	19.5	20.1	97	100	63-138	3	
Ethylbenzene	ug/L	ND	20	20	19.6	19.9	98	99	65-135	2	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.0	20.9	100	104	59-143	4	
Toluene	ug/L	ND	20	20	19.1	19.7	95	98	64-128	3	
Xylene (Total)	ug/L	ND	60	60	57.0	58.3	95	97	65-133	2	
1,2-Dichloroethane-d4 (S)	%						102	102	72-127		
4-Bromofluorobenzene (S)	%						97	100	79-121		
Dibromofluoromethane (S)	%						102	103	81-119		
Toluene-d8 (S)	%						100	100	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch:	MSV/5226	Analysis Method:	EPA 5030B/8260
QC Batch Method:	EPA 5030B/8260	Analysis Description:	8260 MSV Water 10 mL Purge
Associated Lab Samples:	258865002		

METHOD BLANK: 83588 Matrix: Water

Associated Lab Samples: 258865002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	08/26/11 02:20	
Benzene	ug/L	ND	1.0	08/26/11 02:20	
Ethylbenzene	ug/L	ND	1.0	08/26/11 02:20	
Methyl-tert-butyl ether	ug/L	ND	1.0	08/26/11 02:20	
Toluene	ug/L	ND	1.0	08/26/11 02:20	
Xylene (Total)	ug/L	ND	3.0	08/26/11 02:20	
1,2-Dichloroethane-d4 (S)	%	80	72-127	08/26/11 02:20	
4-Bromofluorobenzene (S)	%	99	79-121	08/26/11 02:20	
Dibromofluoromethane (S)	%	93	81-119	08/26/11 02:20	
Toluene-d8 (S)	%	100	77-120	08/26/11 02:20	

LABORATORY CONTROL SAMPLE: 83589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	16.0	80	63-131	
Benzene	ug/L	20	19.0	95	66-123	
Ethylbenzene	ug/L	20	17.5	87	67-122	
Methyl-tert-butyl ether	ug/L	20	16.3	82	65-138	
Toluene	ug/L	20	18.9	94	64-118	
Xylene (Total)	ug/L	60	52.7	88	68-122	
1,2-Dichloroethane-d4 (S)	%			79	72-127	
4-Bromofluorobenzene (S)	%			101	79-121	
Dibromofluoromethane (S)	%			96	81-119	
Toluene-d8 (S)	%			98	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83934 83935

Parameter	Units	258848008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	18.3	17.8	92	89	60-138	3	
Benzene	ug/L	3.7	20	20	25.3	24.5	108	104	63-138	3	
Ethylbenzene	ug/L	45.5	20	20	61.1	60.1	78	73	65-135	2	
Methyl-tert-butyl ether	ug/L	1.9	20	20	19.9	19.6	90	88	59-143	2	
Toluene	ug/L	ND	20	20	23.1	22.3	112	108	64-128	3	
Xylene (Total)	ug/L	25.7	60	60	84.2	81.8	97	93	65-133	3	
1,2-Dichloroethane-d4 (S)	%						80	80	72-127		
4-Bromofluorobenzene (S)	%						104	101	79-121		
Dibromofluoromethane (S)	%						96	95	81-119		
Toluene-d8 (S)	%						99	99	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch:	MSV/5256	Analysis Method:	NWTPH-Gx
QC Batch Method:	NWTPH-Gx	Analysis Description:	NWTPH-Gx MSV Water
Associated Lab Samples:	258865002		

METHOD BLANK: 84005 Matrix: Water

Associated Lab Samples: 258865002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	08/30/11 02:32	
4-Bromofluorobenzene (S)	%	96	50-150	08/30/11 02:32	

LABORATORY CONTROL SAMPLE: 84006

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	500	519	104	65-139	
4-Bromofluorobenzene (S)	%			95	50-150	

SAMPLE DUPLICATE: 84065

Parameter	Units	258968002 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	16J		
4-Bromofluorobenzene (S)	%	94	94	.05	

SAMPLE DUPLICATE: 84066

Parameter	Units	258968018 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	11J		
4-Bromofluorobenzene (S)	%	94	96	2	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 258865

QC Batch: MSV/5267

Analysis Method: NWTPH-Gx

QC Batch Method: NWTPH-Gx

Analysis Description: NWTPH-Gx MSV Water

Associated Lab Samples: 258865001

METHOD BLANK: 84114

Matrix: Water

Associated Lab Samples: 258865001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	08/25/11 04:44	
4-Bromofluorobenzene (S)	%	116	50-150	08/25/11 04:44	

LABORATORY CONTROL SAMPLE & LCSD: 84115

84116

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	ug/L	500	592	672	118	134	65-139	13	30	
4-Bromofluorobenzene (S)	%				118	113	50-150			

QUALIFIERS

Project: 2611255

Pace Project No.: 258865

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.

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

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.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

BATCH QUALIFIERS

Batch: MSV/5267

[1] A sample duplicate was not performed for this batch due to insufficient sample volume.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 258865

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258865001	MW-14_20110813	EPA 8011	OEXT/4286	EPA 8011	GCSV/2851
258865002	MW-15_20110813	EPA 8011	OEXT/4286	EPA 8011	GCSV/2851
258865001	MW-14_20110813	EPA 3510	OEXT/4253	NWTPH-Dx	GCSV/2830
258865002	MW-15_20110813	EPA 3510	OEXT/4253	NWTPH-Dx	GCSV/2830
258865001	MW-14_20110813	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258865002	MW-15_20110813	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258865001	MW-14_20110813	EPA 5030B/8260	MSV/5190		
258865002	MW-15_20110813	EPA 5030B/8260	MSV/5226		
258865001	MW-14_20110813	NWTPH-Gx	MSV/5267		
258865002	MW-15_20110813	NWTPH-Gx	MSV/5256		

Required Lab Information:

Lab Name: <u>Pace-Seattle</u>	Site ID #: <u>2611265</u>	Task: <u>WG_S_201108</u>	Send Invoice to:
Address:	Delta project #	Address:	Phone #:
940 S Hamby Drive Seattle WA	Site Address: <u>19924 INTERNATIONAL BLVD</u>	City/State:	Reimbursement project? ☐
Lab Pk: <u>Regina Ste Marie</u>	City: <u>SEATAC</u>	State: <u>WA</u>	Non-reimbursement project? ☐
Phone/Fax: <u>P: 206-957-2427 F:</u>	Delta PM Name: <u>Bryan Taylor</u>	Send EDD to: <u>copeldata@intelligencehs.com</u>	Mark one
Lab PM Email:	Phone/Fax: <u>P: 425-882-3528 F:</u>	CC Hardcopy report to: <u>bryan.taylor@anteagroup.com</u>	MA MCP Cert? ☐
Applicable Lab Quote #:	Delta PM Email: <u>bryan.taylor@anteagroup.com</u>	CC Hardcopy report to:	CT RCP Cert? ☐

Required Project Information:

Required Invoice Information:

Turn around time (days) 10

QC level Required: Standard ☐ Special ☐ Mark one

NJ Reduced Deliverable Package? ☐

Lab Project ID (lab use)

Requested Analyses

6010LeadTotal
8268BTEX
NWTFH-OLX w/Galvalloy
NWTFH-Gx

Comments/Lab Sample I.D.

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives						Sample Receipt Conditions	Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
								Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other			

1	BUB6-20110813	WG																	
2	WVW-20110813	WG																	
3	WVW-20110813	WG																	
4	WVW-20110813	WG																	
5	WVW-20110813	WG																	
6	WVW-20110813	WG																	
7	WVW-20110813	WG																	
8	WVW-20110813	WG																	
9	WVW-20110813	WG																	
10	WVW-20110813	WG																	
11	WVW-20110813	WG																	
12	WVW-20110813	WG																	

RELINQUISHED BY / AFFILIATION

DATE TIME

ACCEPTED BY / AFFILIATION

DATE TIME

Bill Ball ANTEG 8/16/11 735 Quack page 8/16/11 735

SHIPPING METHOD: (mark as appropriate)

UPS COURIER FEDEX

SAAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER

SIGNATURE of SAMPLER

DATE Signed 8-16-11 Time: 700

Sample Container Count

2 5 8 8 6 5

CLIENT:

Antea



COC PAGE 1 of 1

COC ID#

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU					Comments
1	6	1 ²²														
2	6	1 ²²														
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																Trip Blank? No

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic		I	Wipe/Swab		



Sample Condition Upon Receipt

Client Name: Antea

Project # 258865

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No

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

Thermometer Used 132013 or 101731962 or 226099 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 11.4°C Biological Tissue is Frozen: Yes No

Temp should be above freezing $\leq 6^{\circ}\text{C}$

Comments:

Date and Initials of person examining contents: 08/16/11 CW

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Follow Up / Hold Analysis Requested:	☐ Yes ☒ No ☐ N/A	8.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	9.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	10.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☒ No ☐ N/A	11. <u>Recvd 1 cracked lid for MW-15-20110813</u>
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☒ Yes ☐ No ☐ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☒ Yes ☐ No ☐ N/A	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	15.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	16.
Trip Blanks Present:	☐ Yes ☒ No ☐ N/A	17.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: Dan Rowlands Date/Time: 08/16/11 15:28

Comments/ Resolution:

Client added EDB & EDC via email on 08/16/11 RSM
MTBE added by Dan 08/17/11 08:30

Project Manager Review:

RSM

Date: 08/17/11

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)

October 03, 2011

Bryan Taylor
Antea USA
4006 148th Ave. NE
Redmond, WA 98052

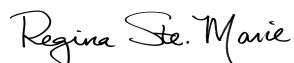
RE: Project: 2611255
Pace Project No.: 259247

Dear Bryan Taylor:

Enclosed are the analytical results for sample(s) received by the laboratory on September 19, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Thuan Bui, Antea USA
Eric Larsen, Antea USA
Megan MacDonald, Antea USA
Joe Rounds, Antea USA
Dan Rowlands, Antea USA
Hitomi Somics, Antea USA



REPORT OF LABORATORY ANALYSIS

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Page 1 of 54

CERTIFICATIONS

Project: 2611255

Pace Project No.: 259247

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alaska Certification #: UST-078

Alaska Certification #MN00064

Arizona Certification #: AZ-0014

Arkansas Certification #: 88-0680

California Certification #: 01155CA

EPA Region 8 Certification #: Pace

Florida/NELAP Certification #: E87605

Georgia Certification #: 959

Idaho Certification #: MN00064

Illinois Certification #: 200011

Iowa Certification #: 368

Kansas Certification #: E-10167

Louisiana Certification #: 03086

Louisiana Certification #: LA080009

Maine Certification #: 2007029

Maryland Certification #: 322

Michigan DEQ Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace

Montana Certification #: MT CERT0092

Nevada Certification #: MN_00064

Nebraska Certification #: Pace

New Jersey Certification #: MN-002

New Mexico Certification #: Pace

New York Certification #: 11647

North Carolina Certification #: 530

North Dakota Certification #: R-036

North Dakota Certification #: R-036A

Ohio VAP Certification #: CL101

Oklahoma Certification #: D9921

Oklahoma Certification #: 9507

Oregon Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification

Tennessee Certification #: 02818

Texas Certification #: T104704192

Washington Certification #: C754

Wisconsin Certification #: 999407970

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Arizona Certification #: AZ0770

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C555

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 259247

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
259247001	DUP12_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247002	MW-1_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247003	MW-10_20110813	RSK 175	SK4	3	PASI-M
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	3	PASI-S
		EPA 6010	BGA	2	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
		SM 2320B	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	1	PASI-S
		EPA 410.4	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
259247004	MW-11_20110813	EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247005	MW-12_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247006	MW-13_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247007	MW-16_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247008	MW-17_20110813	NWTPH-Dx	AY1	4	PASI-S

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 259247

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
259247009	MW-3_20110813	EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
		RSK 175	SK4	3	PASI-M
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	3	PASI-S
		EPA 6010	BGA	2	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
		SM 2320B	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	1	PASI-S
		EPA 410.4	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S
259247010	TB1_20110813	EPA 5030B/8260	LPM	8	PASI-S
259247011	MW-4_20110813	NWTPH-Gx	LPM	2	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
259247012	MW-5_20110813	EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
259247013	MW-6_20110813	NWTPH-Gx	LPM	2	PASI-S
		RSK 175	SK4	3	PASI-M
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	3	PASI-S
		EPA 6010	BGA	2	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
		SM 2320B	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	1	PASI-S
		EPA 410.4	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S

REPORT OF LABORATORY ANALYSIS

Page 4 of 54

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SAMPLE ANALYTE COUNT

Project: 2611255

Pace Project No.: 259247

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
259247014	MW-7_20110813	RSK 175	SK4	3	PASI-M
		NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	3	PASI-S
		EPA 6010	BGA	2	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
		SM 2320B	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	1	PASI-S
		EPA 410.4	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S
259247015	MW-8_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247016	MW-9_20110813	NWTPH-Dx	AY1	4	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S
259247017	TB2_20110813	EPA 5030B/8260	LPM	8	PASI-S
		NWTPH-Gx	LPM	2	PASI-S

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: RSK 175

Description: RSK 175 AIR Headspace

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for RSK 175. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

Analyte Comments:

QC Batch: AIR/13191

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 1060727)
- Methane

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: NWTPH-Dx

Description: NWTPH-Dx GCS Silica Gel

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

15 samples were analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

QC Batch: OEXT/4397

R1: RPD value was outside control limits.

- DUP (Lab ID: 86790)
- Diesel Range SG

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: EPA 6010

Description: 6010 MET ICP

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

15 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: EPA 6010

Description: 6010 MET ICP, Dissolved (LF)

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: EPA 5030B/8260

Description: 8260 MSV

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

17 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

QC Batch: MSV/5483

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 259247003

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

- MS (Lab ID: 87801)
 - Xylene (Total)
- MSD (Lab ID: 87802)
 - Xylene (Total)

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: NWTPH-Gx

Description: NWTPH-Gx MSV

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

17 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Internal Standards:

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

Surrogates:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: SM 2320B

Description: 2320B Alkalinity

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: SM 5210B

Description: 5210B BOD, 5 day

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for SM 5210B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Sample Preparation:

The samples were prepared in accordance with SM 5210B with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: EPA 353.2

Description: 353.2 Nitrogen, NO₂/NO₃ pres.

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: EPA 410.4

Description: 410.4 COD

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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PROJECT NARRATIVE

Project: 2611255

Pace Project No.: 259247

Method: SM 5310C

Description: 5310C TOC

Client: ELT_Antea Group, Washington

Date: October 03, 2011

General Information:

4 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

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

Initial Calibrations (including MS Tune as applicable):

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

Continuing Calibration:

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

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Duplicate Sample:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 259247

Sample: DUP12_20110813		Lab ID: 259247001	Collected: 09/19/11 00:00	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND mg/L		0.076	1	09/22/11 15:05	09/23/11 19:24		
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/23/11 19:24	64742-65-0	
n-Octacosane (S) SG	78 %		50-150	1	09/22/11 15:05	09/23/11 19:24	630-02-4	
o-Terphenyl (S) SG	82 %		50-150	1	09/22/11 15:05	09/23/11 19:24	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 15:34	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		1.0	1		09/26/11 13:35	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		09/26/11 13:35	100-41-4	
Toluene	ND ug/L		1.0	1		09/26/11 13:35	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		09/26/11 13:35	1330-20-7	
4-Bromofluorobenzene (S)	102 %		79-121	1		09/26/11 13:35	460-00-4	
Dibromofluoromethane (S)	108 %		81-119	1		09/26/11 13:35	1868-53-7	
1,2-Dichloroethane-d4 (S)	105 %		72-127	1		09/26/11 13:35	17060-07-0	
Toluene-d8 (S)	95 %		77-120	1		09/26/11 13:35	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	ND ug/L		50.0	1		09/26/11 13:35		
4-Bromofluorobenzene (S)	102 %		50-150	1		09/26/11 13:35	460-00-4	

Sample: MW-1_20110813		Lab ID: 259247002	Collected: 09/19/11 15:00	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND mg/L		0.077	1	09/22/11 15:05	09/23/11 19:49		
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/23/11 19:49	64742-65-0	
n-Octacosane (S) SG	73 %		50-150	1	09/22/11 15:05	09/23/11 19:49	630-02-4	
o-Terphenyl (S) SG	78 %		50-150	1	09/22/11 15:05	09/23/11 19:49	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 15:38	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		1.0	1		09/26/11 13:01	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		09/26/11 13:01	100-41-4	
Toluene	ND ug/L		1.0	1		09/26/11 13:01	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		09/26/11 13:01	1330-20-7	
4-Bromofluorobenzene (S)	100 %		79-121	1		09/26/11 13:01	460-00-4	
Dibromofluoromethane (S)	112 %		81-119	1		09/26/11 13:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	107 %		72-127	1		09/26/11 13:01	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		09/26/11 13:01	2037-26-5	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-1_20110813		Lab ID: 259247002		Collected: 09/19/11 15:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND	ug/L	50.0	1		09/26/11 13:01			
4-Bromofluorobenzene (S)	100	%	50-150	1		09/26/11 13:01	460-00-4		
Sample: MW-10_20110813		Lab ID: 259247003		Collected: 09/19/11 13:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
RSK 175 AIR Headspace		Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		09/22/11 12:59	74-84-0		
Ethene	ND	ug/L	10.0	1		09/22/11 12:59	74-85-1		
Methane	190	ug/L	10.0	1		09/22/11 12:59	74-82-8		
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Range SG	0.52	mg/L	0.078	1	09/22/11 15:05	09/23/11 21:04			
Motor Oil Range SG	ND	mg/L	0.39	1	09/22/11 15:05	09/23/11 21:04	64742-65-0		
n-Octacosane (S) SG	77	%	50-150	1	09/22/11 15:05	09/23/11 21:04	630-02-4		
o-Terphenyl (S) SG	82	%	50-150	1	09/22/11 15:05	09/23/11 21:04	84-15-1		
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	1570	ug/L	100	1	09/26/11 09:55	09/27/11 15:41	7439-89-6		
Lead	ND	ug/L	10.0	1	09/26/11 09:55	09/27/11 15:41	7439-92-1		
Manganese	3510	ug/L	15.0	1	09/26/11 09:55	09/27/11 15:41	7439-96-5		
6010 MET ICP, Dissolved (LF)		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	1340	ug/L	100	1	09/23/11 08:54	09/26/11 15:07	7439-89-6		
Lead, Dissolved	ND	ug/L	10.0	1	09/23/11 08:54	09/26/11 15:07	7439-92-1		
8260 MSV		Analytical Method: EPA 5030B/8260							
Benzene	1.5	ug/L	1.0	1		09/27/11 15:45	71-43-2		
Ethylbenzene	131	ug/L	1.0	1		09/27/11 15:45	100-41-4		
Toluene	2.6	ug/L	1.0	1		09/27/11 15:45	108-88-3		
Xylene (Total)	477	ug/L	75.0	25		09/26/11 13:54	1330-20-7		M1
4-Bromofluorobenzene (S)	91	%	79-121	1		09/27/11 15:45	460-00-4		
Dibromofluoromethane (S)	109	%	81-119	1		09/27/11 15:45	1868-53-7		
1,2-Dichloroethane-d4 (S)	99	%	72-127	1		09/27/11 15:45	17060-07-0		
Toluene-d8 (S)	97	%	77-120	1		09/27/11 15:45	2037-26-5		
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	7270	ug/L	1250	25		09/26/11 13:54			
4-Bromofluorobenzene (S)	99	%	50-150	25		09/26/11 13:54	460-00-4		
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	226	mg/L	1.0	1		09/30/11 15:40			

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-10_20110813		Lab ID: 259247003		Collected: 09/19/11 13:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
5210B BOD, 5 day		Analytical Method: SM 5210B Preparation Method: SM 5210B							
BOD, 5 day	4.5	mg/L	2.0	1	09/21/11 12:24	09/26/11 15:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	24.9	mg/L	2.0	2		09/28/11 15:04	14808-79-8		
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.050	1		09/29/11 17:32			
410.4 COD		Analytical Method: EPA 410.4							
Chemical Oxygen Demand	15.8	mg/L	5.0	1		09/23/11 12:15			
5310C TOC		Analytical Method: SM 5310C							
Total Organic Carbon	3.0	mg/L	1.0	1		09/26/11 17:48	7440-44-0		

Sample: MW-11_20110813		Lab ID: 259247004		Collected: 09/19/11 10:20		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Range SG	ND	mg/L	0.076	1	09/22/11 15:05	09/23/11 21:29			
Motor Oil Range SG	ND	mg/L	0.38	1	09/22/11 15:05	09/23/11 21:29	64742-65-0		
n-Octacosane (S) SG	70	%	50-150	1	09/22/11 15:05	09/23/11 21:29	630-02-4		
o-Terphenyl (S) SG	78	%	50-150	1	09/22/11 15:05	09/23/11 21:29	84-15-1		
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	09/26/11 09:55	09/27/11 15:51	7439-92-1		
8260 MSV		Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		09/26/11 13:18	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		09/26/11 13:18	100-41-4		
Toluene	ND	ug/L	1.0	1		09/26/11 13:18	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		09/26/11 13:18	1330-20-7		
4-Bromofluorobenzene (S)	99	%	79-121	1		09/26/11 13:18	460-00-4		
Dibromofluoromethane (S)	111	%	81-119	1		09/26/11 13:18	1868-53-7		
1,2-Dichloroethane-d4 (S)	106	%	72-127	1		09/26/11 13:18	17060-07-0		
Toluene-d8 (S)	96	%	77-120	1		09/26/11 13:18	2037-26-5		
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND	ug/L	50.0	1		09/26/11 13:18			
4-Bromofluorobenzene (S)	99	%	50-150	1		09/26/11 13:18	460-00-4		

ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 259247

Sample: MW-12_20110813		Lab ID: 259247005		Collected: 09/19/11 10:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Range SG	ND mg/L		0.077	1	09/22/11 15:05	09/23/11 21:54			
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/23/11 21:54	64742-65-0		
n-Octacosane (S) SG	70 %		50-150	1	09/22/11 15:05	09/23/11 21:54	630-02-4		
o-Terphenyl (S) SG	78 %		50-150	1	09/22/11 15:05	09/23/11 21:54	84-15-1		
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 15:55	7439-92-1		
8260 MSV		Analytical Method: EPA 5030B/8260							
Benzene	ND ug/L		1.0	1		09/27/11 07:08	71-43-2		
Ethylbenzene	ND ug/L		1.0	1		09/27/11 07:08	100-41-4		
Toluene	ND ug/L		1.0	1		09/27/11 07:08	108-88-3		
Xylene (Total)	ND ug/L		3.0	1		09/27/11 07:08	1330-20-7		
4-Bromofluorobenzene (S)	99 %		79-121	1		09/27/11 07:08	460-00-4		
Dibromofluoromethane (S)	103 %		81-119	1		09/27/11 07:08	1868-53-7		
1,2-Dichloroethane-d4 (S)	112 %		72-127	1		09/27/11 07:08	17060-07-0		
Toluene-d8 (S)	99 %		77-120	1		09/27/11 07:08	2037-26-5		
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND ug/L		50.0	1		09/27/11 07:08			
4-Bromofluorobenzene (S)	99 %		50-150	1		09/27/11 07:08	460-00-4		

Sample: MW-13_20110813		Lab ID: 259247006	Collected: 09/19/11 09:40	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND mg/L		0.076	1	09/22/11 15:05	09/23/11 22:19		
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/23/11 22:19	64742-65-0	
n-Octacosane (S) SG	75 %		50-150	1	09/22/11 15:05	09/23/11 22:19	630-02-4	
o-Terphenyl (S) SG	82 %		50-150	1	09/22/11 15:05	09/23/11 22:19	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 15:58	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		1.0	1		09/27/11 08:02	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		09/27/11 08:02	100-41-4	
Toluene	ND ug/L		1.0	1		09/27/11 08:02	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		09/27/11 08:02	1330-20-7	
4-Bromofluorobenzene (S)	97 %		79-121	1		09/27/11 08:02	460-00-4	
Dibromofluoromethane (S)	106 %		81-119	1		09/27/11 08:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	113 %		72-127	1		09/27/11 08:02	17060-07-0	
Toluene-d8 (S)	99 %		77-120	1		09/27/11 08:02	2037-26-5	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-13_20110813		Lab ID: 259247006	Collected: 09/19/11 09:40	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

NWTPH-Gx MSV

Analytical Method: NWTPH-Gx

Gasoline Range Organics	ND ug/L		50.0	1		09/27/11 08:02		
4-Bromofluorobenzene (S)	97 %		50-150	1		09/27/11 08:02	460-00-4	

Sample: MW-16_20110813		Lab ID: 259247007		Collected: 09/19/11 11:20		Received: 09/19/11 16:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

NWTPH-Dx GCS Silica Gel

Analytical Method: NWTPH-Dx Preparation Method: EPA 3510

Diesel Range SG	1.0 mg/L		0.077	1	09/22/11 15:05	09/23/11 22:45		
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/23/11 22:45	64742-65-0	
n-Octacosane (S) SG	82 %		50-150	1	09/22/11 15:05	09/23/11 22:45	630-02-4	
o-Terphenyl (S) SG	85 %		50-150	1	09/22/11 15:05	09/23/11 22:45	84-15-1	

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3010

Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 16:09	7439-92-1	
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8260 MSV

Analytical Method: EPA 5030B/8260

Benzene	1630 ug/L		50.0	50		09/30/11 18:48	71-43-2	
Ethylbenzene	1780 ug/L		50.0	50		09/30/11 18:48	100-41-4	
Toluene	4250 ug/L		50.0	50		09/30/11 18:48	108-88-3	
Xylene (Total)	9320 ug/L		150	50		09/30/11 18:48	1330-20-7	
4-Bromofluorobenzene (S)	100 %		79-121	50		09/30/11 18:48	460-00-4	
Dibromofluoromethane (S)	105 %		81-119	50		09/30/11 18:48	1868-53-7	
1,2-Dichloroethane-d4 (S)	115 %		72-127	50		09/30/11 18:48	17060-07-0	
Toluene-d8 (S)	103 %		77-120	50		09/30/11 18:48	2037-26-5	

NWTPH-Gx MSV

Analytical Method: NWTPH-Gx

Gasoline Range Organics	67900 ug/L		2500	50		09/30/11 18:48		
4-Bromofluorobenzene (S)	100 %		50-150	50		09/30/11 18:48	460-00-4	

Sample: MW-17_20110813		Lab ID: 259247008		Collected: 09/19/11 14:30	Received: 09/19/11 16:00	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

NWTPH-Dx GCS Silica Gel

Analytical Method: NWTPH-Dx Preparation Method: EPA 3510

Diesel Range SG	1.2 mg/L		0.078	1	09/22/11 15:05	09/23/11 23:10		
Motor Oil Range SG	ND mg/L		0.39	1	09/22/11 15:05	09/23/11 23:10	64742-65-0	
n-Octacosane (S) SG	77 %		50-150	1	09/22/11 15:05	09/23/11 23:10	630-02-4	
o-Terphenyl (S) SG	82 %		50-150	1	09/22/11 15:05	09/23/11 23:10	84-15-1	

6010 MET ICP

Analytical Method: EPA 6010 Preparation Method: EPA 3010

Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 16:12	7439-92-1	
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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 259247

Sample: MW-17_20110813		Lab ID: 259247008	Collected: 09/19/11 14:30	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	176	ug/L	10.0	10		09/30/11 19:08	71-43-2	
Ethylbenzene	1270	ug/L	10.0	10		09/30/11 19:08	100-41-4	
Toluene	67.1	ug/L	10.0	10		09/30/11 19:08	108-88-3	
Xylene (Total)	4830	ug/L	30.0	10		09/30/11 19:08	1330-20-7	
4-Bromofluorobenzene (S)	95	%	79-121	10		09/30/11 19:08	460-00-4	
Dibromofluoromethane (S)	103	%	81-119	10		09/30/11 19:08	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	72-127	10		09/30/11 19:08	17060-07-0	
Toluene-d8 (S)	106	%	77-120	10		09/30/11 19:08	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	41300	ug/L	500	10		09/30/11 19:08		
4-Bromofluorobenzene (S)	95	%	50-150	10		09/30/11 19:08	460-00-4	

Sample: MW-3_20110813		Lab ID: 259247009	Collected: 09/19/11 15:30	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175						
Ethane	ND	ug/L	10.0	1		09/22/11 14:36	74-84-0	
Ethene	ND	ug/L	10.0	1		09/22/11 14:36	74-85-1	
Methane	ND	ug/L	10.0	1		09/22/11 14:36	74-82-8	
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND	mg/L	0.076	1	09/22/11 15:05	09/23/11 23:35		
Motor Oil Range SG	ND	mg/L	0.38	1	09/22/11 15:05	09/23/11 23:35	64742-65-0	
n-Octacosane (S) SG	81	%	50-150	1	09/22/11 15:05	09/23/11 23:35	630-02-4	
o-Terphenyl (S) SG	85	%	50-150	1	09/22/11 15:05	09/23/11 23:35	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	122	ug/L	100	1	09/26/11 09:55	09/29/11 11:19	7439-89-6	
Lead	ND	ug/L	10.0	1	09/26/11 09:55	09/27/11 16:16	7439-92-1	
Manganese	ND	ug/L	15.0	1	09/26/11 09:55	09/27/11 16:16	7439-96-5	
6010 MET ICP, Dissolved (LF)		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron, Dissolved	ND	ug/L	100	1	09/23/11 08:54	09/26/11 15:17	7439-89-6	
Lead, Dissolved	ND	ug/L	10.0	1	09/23/11 08:54	09/26/11 15:17	7439-92-1	

8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND	ug/L	1.0	1		09/30/11 12:59	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/30/11 12:59	100-41-4	
Toluene	ND	ug/L	1.0	1		09/30/11 12:59	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/30/11 12:59	1330-20-7	
4-Bromofluorobenzene (S)	105	%	79-121	1		09/30/11 12:59	460-00-4	
Dibromofluoromethane (S)	101	%	81-119	1		09/30/11 12:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	72-127	1		09/30/11 12:59	17060-07-0	

Date: 10/03/2011 05:24 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-3_20110813		Lab ID: 259247009		Collected: 09/19/11 15:30		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 5030B/8260							
Toluene-d8 (S)	100 %		77-120	1		09/30/11 12:59	2037-26-5		
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND ug/L		50.0	1		09/30/11 12:59			
4-Bromofluorobenzene (S)	105 %		50-150	1		09/30/11 12:59	460-00-4		
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	178 mg/L		1.0	1		09/30/11 15:40			
5210B BOD, 5 day		Analytical Method: SM 5210B Preparation Method: SM 5210B							
BOD, 5 day	ND mg/L		2.0	1	09/21/11 12:57	09/26/11 15:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	21.9 mg/L		2.0	2		09/28/11 15:38	14808-79-8		
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	1.5 mg/L		0.050	1		09/29/11 17:33			
410.4 COD		Analytical Method: EPA 410.4							
Chemical Oxygen Demand	ND mg/L		5.0	1		09/23/11 12:15			
5310C TOC		Analytical Method: SM 5310C							
Total Organic Carbon	1.7 mg/L		1.0	1		09/26/11 18:33	7440-44-0		

Sample: TB1_20110813		Lab ID: 259247010		Collected: 09/19/11 00:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Benzene	ND ug/L		1.0	1		09/27/11 01:00	71-43-2		
Ethylbenzene	ND ug/L		1.0	1		09/27/11 01:00	100-41-4		
Toluene	ND ug/L		1.0	1		09/27/11 01:00	108-88-3		
Xylene (Total)	ND ug/L		3.0	1		09/27/11 01:00	1330-20-7		
4-Bromofluorobenzene (S)	98 %		79-121	1		09/27/11 01:00	460-00-4		
Dibromofluoromethane (S)	110 %		81-119	1		09/27/11 01:00	1868-53-7		
1,2-Dichloroethane-d4 (S)	115 %		72-127	1		09/27/11 01:00	17060-07-0		
Toluene-d8 (S)	101 %		77-120	1		09/27/11 01:00	2037-26-5		
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND ug/L		50.0	1		09/27/11 01:00			
4-Bromofluorobenzene (S)	98 %		50-150	1		09/27/11 01:00	460-00-4		

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-4_20110813		Lab ID: 259247011	Collected: 09/19/11 10:40	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND mg/L		0.11	1	09/23/11 09:45	09/23/11 18:04		
Motor Oil Range SG	ND mg/L		0.57	1	09/23/11 09:45	09/23/11 18:04	64742-65-0	
n-Octacosane (S) SG	92 %		50-150	1	09/23/11 09:45	09/23/11 18:04	630-02-4	
o-Terphenyl (S) SG	84 %		50-150	1	09/23/11 09:45	09/23/11 18:04	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 16:19	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		1.0	1		10/03/11 12:42	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		10/03/11 12:42	100-41-4	
Toluene	ND ug/L		1.0	1		10/03/11 12:42	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		10/03/11 12:42	1330-20-7	
4-Bromofluorobenzene (S)	105 %		79-121	1		10/03/11 12:42	460-00-4	
Dibromofluoromethane (S)	98 %		81-119	1		10/03/11 12:42	1868-53-7	
1,2-Dichloroethane-d4 (S)	95 %		72-127	1		10/03/11 12:42	17060-07-0	
Toluene-d8 (S)	100 %		77-120	1		10/03/11 12:42	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	ND ug/L		50.0	1		10/03/11 12:42		
4-Bromofluorobenzene (S)	105 %		50-150	1		10/03/11 12:42	460-00-4	

Sample: MW-5_20110813		Lab ID: 259247012	Collected: 09/19/11 09:20	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	ND mg/L		0.076	1	09/22/11 15:05	09/24/11 00:00		
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/24/11 00:00	64742-65-0	
n-Octacosane (S) SG	77 %		50-150	1	09/22/11 15:05	09/24/11 00:00	630-02-4	
o-Terphenyl (S) SG	82 %		50-150	1	09/22/11 15:05	09/24/11 00:00	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 16:26	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		1.0	1		09/30/11 11:00	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		09/30/11 11:00	100-41-4	
Toluene	ND ug/L		1.0	1		09/30/11 11:00	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		09/30/11 11:00	1330-20-7	
4-Bromofluorobenzene (S)	107 %		79-121	1		09/30/11 11:00	460-00-4	
Dibromofluoromethane (S)	100 %		81-119	1		09/30/11 11:00	1868-53-7	
1,2-Dichloroethane-d4 (S)	99 %		72-127	1		09/30/11 11:00	17060-07-0	
Toluene-d8 (S)	99 %		77-120	1		09/30/11 11:00	2037-26-5	

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-5_20110813		Lab ID: 259247012	Collected: 09/19/11 09:20	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	ND ug/L		50.0	1		09/30/11 11:00		
4-Bromofluorobenzene (S)	107 %		50-150	1		09/30/11 11:00	460-00-4	
Sample: MW-6_20110813		Lab ID: 259247013	Collected: 09/19/11 14:00	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175						
Ethane	ND ug/L		10.0	1		09/22/11 15:12	74-84-0	
Ethene	ND ug/L		10.0	1		09/22/11 15:12	74-85-1	
Methane	2610 ug/L		10.0	1		09/22/11 15:12	74-82-8	
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	0.95 mg/L		0.077	1	09/22/11 15:05	09/24/11 00:26		
Motor Oil Range SG	ND mg/L		0.38	1	09/22/11 15:05	09/24/11 00:26	64742-65-0	
n-Octacosane (S) SG	78 %		50-150	1	09/22/11 15:05	09/24/11 00:26	630-02-4	
o-Terphenyl (S) SG	83 %		50-150	1	09/22/11 15:05	09/24/11 00:26	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	3920 ug/L		100	1	09/26/11 09:55	09/27/11 16:30	7439-89-6	
Lead	ND ug/L		10.0	1	09/26/11 09:55	09/27/11 16:30	7439-92-1	
Manganese	3240 ug/L		15.0	1	09/26/11 09:55	09/27/11 16:30	7439-96-5	
6010 MET ICP, Dissolved (LF)		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron, Dissolved	3200 ug/L		100	1	09/23/11 08:54	09/26/11 15:21	7439-89-6	
Lead, Dissolved	ND ug/L		10.0	1	09/23/11 08:54	09/26/11 15:21	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	191 ug/L		50.0	50		10/03/11 14:30	71-43-2	
Ethylbenzene	1390 ug/L		50.0	50		10/03/11 14:30	100-41-4	
Toluene	26.8 ug/L		1.0	1		09/30/11 19:25	108-88-3	
Xylene (Total)	5280 ug/L		150	50		10/03/11 14:30	1330-20-7	
4-Bromofluorobenzene (S)	96 %		79-121	1		09/30/11 19:25	460-00-4	
Dibromofluoromethane (S)	99 %		81-119	1		09/30/11 19:25	1868-53-7	
1,2-Dichloroethane-d4 (S)	99 %		72-127	1		09/30/11 19:25	17060-07-0	
Toluene-d8 (S)	102 %		77-120	1		09/30/11 19:25	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	45700 ug/L		2500	50		10/03/11 14:30		
4-Bromofluorobenzene (S)	104 %		50-150	50		10/03/11 14:30	460-00-4	
2320B Alkalinity		Analytical Method: SM 2320B						
Alkalinity, Total as CaCO3	175 mg/L		1.0	1		09/30/11 15:40		

ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-6_20110813		Lab ID: 259247013		Collected: 09/19/11 14:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
5210B BOD, 5 day		Analytical Method: SM 5210B Preparation Method: SM 5210B							
BOD, 5 day	14.1	mg/L	2.0	1	09/21/11 12:26	09/26/11 15:48			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	1.0	1		09/28/11 15:55	14808-79-8		
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.050	1		09/29/11 17:35			
410.4 COD		Analytical Method: EPA 410.4							
Chemical Oxygen Demand	24.6	mg/L	5.0	1		09/23/11 12:15			
5310C TOC		Analytical Method: SM 5310C							
Total Organic Carbon	3.6	mg/L	1.0	1		09/26/11 18:47	7440-44-0		

Sample: MW-7_20110813		Lab ID: 259247014		Collected: 09/19/11 12:30		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
RSK 175 AIR Headspace		Analytical Method: RSK 175							
Ethane	ND	ug/L	10.0	1		09/22/11 15:23	74-84-0		
Ethene	ND	ug/L	10.0	1		09/22/11 15:23	74-85-1		
Methane	264	ug/L	10.0	1		09/22/11 15:23	74-82-8		
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Range SG	0.15	mg/L	0.076	1	09/22/11 15:05	09/24/11 02:07			
Motor Oil Range SG	ND	mg/L	0.38	1	09/22/11 15:05	09/24/11 02:07	64742-65-0		
n-Octacosane (S) SG	86	%	50-150	1	09/22/11 15:05	09/24/11 02:07	630-02-4		
o-Terphenyl (S) SG	83	%	50-150	1	09/22/11 15:05	09/24/11 02:07	84-15-1		
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	1740	ug/L	100	1	09/26/11 09:55	09/29/11 11:22	7439-89-6		
Lead	ND	ug/L	10.0	1	09/26/11 09:55	09/27/11 16:33	7439-92-1		
Manganese	3980	ug/L	15.0	1	09/26/11 09:55	09/27/11 16:33	7439-96-5		
6010 MET ICP, Dissolved (LF)		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	1070	ug/L	100	1	09/23/11 08:54	09/26/11 15:24	7439-89-6		
Lead, Dissolved	ND	ug/L	10.0	1	09/23/11 08:54	09/26/11 15:24	7439-92-1		
8260 MSV		Analytical Method: EPA 5030B/8260							
Benzene	3.0	ug/L	1.0	1		10/03/11 12:59	71-43-2		
Ethylbenzene	77.3	ug/L	1.0	1		10/03/11 12:59	100-41-4		
Toluene	11.4	ug/L	1.0	1		10/03/11 12:59	108-88-3		
Xylene (Total)	142	ug/L	3.0	1		10/03/11 12:59	1330-20-7		
4-Bromofluorobenzene (S)	97	%	79-121	1		10/03/11 12:59	460-00-4		

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ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-7_20110813		Lab ID: 259247014	Collected: 09/19/11 12:30	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
Dibromofluoromethane (S)	98 %		81-119	1		10/03/11 12:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	98 %		72-127	1		10/03/11 12:59	17060-07-0	
Toluene-d8 (S)	94 %		77-120	1		10/03/11 12:59	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	2780 ug/L		50.0	1		10/03/11 12:59		
4-Bromofluorobenzene (S)	97 %		50-150	1		10/03/11 12:59	460-00-4	
2320B Alkalinity		Analytical Method: SM 2320B						
Alkalinity, Total as CaCO3	255 mg/L		1.0	1		09/30/11 15:40		
5210B BOD, 5 day		Analytical Method: SM 5210B Preparation Method: SM 5210B						
BOD, 5 day	ND mg/L		2.0	1	09/21/11 12:12	09/26/11 15:41		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	12.7 mg/L		1.0	1		09/28/11 16:51	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, NO2 plus NO3	ND mg/L		0.050	1		09/29/11 17:36		
410.4 COD		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	12.6 mg/L		5.0	1		09/23/11 12:15		
5310C TOC		Analytical Method: SM 5310C						
Total Organic Carbon	2.6 mg/L		1.0	1		09/26/11 19:00	7440-44-0	

Sample: MW-8_20110813		Lab ID: 259247015	Collected: 09/19/11 11:00	Received: 09/19/11 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	1.1 mg/L		0.076	1	09/22/11 15:05	09/24/11 02:32		
Motor Oil Range SG	1.2 mg/L		0.38	1	09/22/11 15:05	09/24/11 02:32	64742-65-0	
n-Octacosane (S) SG	87 %		50-150	1	09/22/11 15:05	09/24/11 02:32	630-02-4	
o-Terphenyl (S) SG	80 %		50-150	1	09/22/11 15:05	09/24/11 02:32	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	18.0 ug/L		10.0	1	09/26/11 09:55	09/27/11 16:37	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	826 ug/L		10.0	10		10/03/11 13:18	71-43-2	
Ethylbenzene	812 ug/L		10.0	10		10/03/11 13:18	100-41-4	
Toluene	44.2 ug/L		10.0	10		10/03/11 13:18	108-88-3	
Xylene (Total)	1880 ug/L		30.0	10		10/03/11 13:18	1330-20-7	

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ANALYTICAL RESULTS

Project: 2611255
Pace Project No.: 259247

Sample: MW-8_20110813		Lab ID: 259247015		Collected: 09/19/11 11:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 5030B/8260							
4-Bromofluorobenzene (S)	98 %		79-121	10		10/03/11 13:18	460-00-4		
Dibromofluoromethane (S)	103 %		81-119	10		10/03/11 13:18	1868-53-7		
1,2-Dichloroethane-d4 (S)	101 %		72-127	10		10/03/11 13:18	17060-07-0		
Toluene-d8 (S)	102 %		77-120	10		10/03/11 13:18	2037-26-5		
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	23900 ug/L		500	10		10/03/11 13:18			
4-Bromofluorobenzene (S)	98 %		50-150	10		10/03/11 13:18	460-00-4		

Sample: MW-9_20110813		Lab ID: 259247016	Collected: 09/19/11 13:30		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel		Analytical Method: NWTPH-Dx Preparation Method: EPA 3510						
Diesel Range SG	0.78	mg/L	0.076	1	09/23/11 09:45	09/23/11 18:20		
Motor Oil Range SG	ND	mg/L	0.38	1	09/23/11 09:45	09/23/11 18:20	64742-65-0	
n-Octacosane (S) SG	99	%	50-150	1	09/23/11 09:45	09/23/11 18:20	630-02-4	
o-Terphenyl (S) SG	91	%	50-150	1	09/23/11 09:45	09/23/11 18:20	84-15-1	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Lead	ND	ug/L	10.0	1	09/26/11 09:55	09/27/11 16:40	7439-92-1	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	134	ug/L	10.0	10		10/03/11 13:37	71-43-2	
Ethylbenzene	569	ug/L	10.0	10		10/03/11 13:37	100-41-4	
Toluene	ND	ug/L	10.0	10		10/03/11 13:37	108-88-3	
Xylene (Total)	553	ug/L	30.0	10		10/03/11 13:37	1330-20-7	
4-Bromofluorobenzene (S)	100	%	79-121	10		10/03/11 13:37	460-00-4	
Dibromofluoromethane (S)	100	%	81-119	10		10/03/11 13:37	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	72-127	10		10/03/11 13:37	17060-07-0	
Toluene-d8 (S)	104	%	77-120	10		10/03/11 13:37	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx						
Gasoline Range Organics	11100	ug/L	500	10		10/03/11 13:37		
4-Bromofluorobenzene (S)	100	%	50-150	10		10/03/11 13:37	460-00-4	

Sample: TB2_20110813		Lab ID: 259247017		Collected: 09/19/11 00:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 5030B/8260							
Benzene	ND ug/L		1.0	1		09/30/11 12:42	71-43-2		
Ethylbenzene	ND ug/L		1.0	1		09/30/11 12:42	100-41-4		
Toluene	ND ug/L		1.0	1		09/30/11 12:42	108-88-3		

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ANALYTICAL RESULTS

Project: 2611255

Pace Project No.: 259247

Sample: TB2_20110813		Lab ID: 259247017		Collected: 09/19/11 00:00		Received: 09/19/11 16:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260							
Xylene (Total)	ND ug/L		3.0	1			09/30/11 12:42	1330-20-7	
4-Bromofluorobenzene (S)	108 %		79-121	1			09/30/11 12:42	460-00-4	
Dibromofluoromethane (S)	99 %		81-119	1			09/30/11 12:42	1868-53-7	
1,2-Dichloroethane-d4 (S)	97 %		72-127	1			09/30/11 12:42	17060-07-0	
Toluene-d8 (S)	101 %		77-120	1			09/30/11 12:42	2037-26-5	
NWTPH-Gx MSV		Analytical Method: NWTPH-Gx							
Gasoline Range Organics	ND ug/L		50.0	1			09/30/11 12:42		
4-Bromofluorobenzene (S)	108 %		50-150	1			09/30/11 12:42	460-00-4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: AIR/13191 Analysis Method: RSK 175
QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

METHOD BLANK: 1059675 Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	10.0	09/22/11 09:10	
Ethene	ug/L	ND	10.0	09/22/11 09:10	
Methane	ug/L	ND	10.0	09/22/11 09:10	

LABORATORY CONTROL SAMPLE & LCSD: 1059676

1059677

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	90.6	117	80	103	70-130	25	30	
Ethene	ug/L	106	84.0	109	79	103	70-130	26	30	
Methane	ug/L	60.7	54.8	61.7	90	102	70-130	12	30	

SAMPLE DUPLICATE: 1060727

Parameter	Units	10170094004 Result	Dup Result	RPD	Qualifiers
Ethane	ug/L	9.0J	8.8J		
Ethene	ug/L	ND	ND		
Methane	ug/L	38.3 mg/L	36300	5 E	

SAMPLE DUPLICATE: 1060732

Parameter	Units	259247003 Result	Dup Result	RPD	Qualifiers
Ethane	ug/L	ND	ND		
Ethene	ug/L	ND	ND		
Methane	ug/L	190	179	6	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	OEXT/4397	Analysis Method:	NWTPH-Dx
QC Batch Method:	EPA 3510	Analysis Description:	NWTPH-Dx GCS SG
Associated Lab Samples:	259247001, 259247002, 259247003, 259247004, 259247005, 259247006, 259247007, 259247008, 259247009, 259247012, 259247013, 259247014, 259247015		

METHOD BLANK:	86787	Matrix:	Water
Associated Lab Samples:	259247001, 259247002, 259247003, 259247004, 259247005, 259247006, 259247007, 259247008, 259247009, 259247012, 259247013, 259247014, 259247015		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range SG	mg/L	ND	0.080	09/23/11 16:54	
Motor Oil Range SG	mg/L	ND	0.40	09/23/11 16:54	
n-Octacosane (S) SG	%	73	50-150	09/23/11 16:54	
o-Terphenyl (S) SG	%	81	50-150	09/23/11 16:54	

LABORATORY CONTROL SAMPLE:	86788
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Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range SG	mg/L	5	4.7	93	51-147	
Motor Oil Range SG	mg/L	5	4.4	89	20-160	
n-Octacosane (S) SG	%			86	50-150	
o-Terphenyl (S) SG	%			111	50-150	

SAMPLE DUPLICATE:	86789
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Parameter	Units	259237008 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/L	0.93	0.71	28	
Motor Oil Range SG	mg/L	ND	ND		
n-Octacosane (S) SG	%	80	83	11	
o-Terphenyl (S) SG	%	84	86	10	

SAMPLE DUPLICATE:	86790
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Parameter	Units	259237009 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/L	8.0	14.1	55	R1
Motor Oil Range SG	mg/L	ND	ND		
n-Octacosane (S) SG	%	74	70	4	
o-Terphenyl (S) SG	%	81	81	1	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: OEXT/4400

Analysis Method: NWTPH-Dx

QC Batch Method: EPA 3510

Analysis Description: NWTPH-Dx GCS SG

Associated Lab Samples: 259247011, 259247016

METHOD BLANK: 86926

Matrix: Water

Associated Lab Samples: 259247011, 259247016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range SG	mg/L	ND	0.080	09/23/11 17:31	
Motor Oil Range SG	mg/L	ND	0.40	09/23/11 17:31	
n-Octacosane (S) SG	%	109	50-150	09/23/11 17:31	
o-Terphenyl (S) SG	%	95	50-150	09/23/11 17:31	

LABORATORY CONTROL SAMPLE: 86927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range SG	mg/L	5	4.5	90	51-147	
Motor Oil Range SG	mg/L	5	5.3	106	20-160	
n-Octacosane (S) SG	%			105	50-150	
o-Terphenyl (S) SG	%			102	50-150	

SAMPLE DUPLICATE: 86928

Parameter	Units	259264001 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/L	ND	ND		
Motor Oil Range SG	mg/L	ND	ND		
n-Octacosane (S) SG	%	104	88	17	
o-Terphenyl (S) SG	%	93	79	16	

SAMPLE DUPLICATE: 86929

Parameter	Units	259279001 Result	Dup Result	RPD	Qualifiers
Diesel Range SG	mg/L	ND	.056J		
Motor Oil Range SG	mg/L	ND	ND		
n-Octacosane (S) SG	%	104	105	1	
o-Terphenyl (S) SG	%	98	97	.4	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	MPRP/2495	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
Associated Lab Samples:	259247001, 259247002, 259247003, 259247004, 259247005, 259247006, 259247007, 259247008, 259247009, 259247011, 259247012, 259247013, 259247014, 259247015, 259247016		

METHOD BLANK:	87163	Matrix:	Water
Associated Lab Samples:	259247001, 259247002, 259247003, 259247004, 259247005, 259247006, 259247007, 259247008, 259247009, 259247011, 259247012, 259247013, 259247014, 259247015, 259247016		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	09/27/11 15:28	
Lead	ug/L	ND	10.0	09/27/11 15:28	
Manganese	ug/L	ND	15.0	09/27/11 15:28	

LABORATORY CONTROL SAMPLE:	87164
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Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10000	100	80-120	
Lead	ug/L	500	491	98	80-120	
Manganese	ug/L	500	488	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	87165	87166
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Parameter	Units	259247003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron	ug/L	1570	10000	10000	11800	12000	103	104	75-125	1	
Lead	ug/L	ND	500	500	492	496	98	98	75-125	.7	
Manganese	ug/L	3510	500	500	4020	4020	103	103	75-125	.05	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: MPRP/2494 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

METHOD BLANK: 86922 Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	100	09/26/11 15:00	
Lead, Dissolved	ug/L	ND	10.0	09/26/11 15:00	

LABORATORY CONTROL SAMPLE: 86923

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	10100	101	80-120	
Lead, Dissolved	ug/L	500	511	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86924 86925

Parameter	Units	259247003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron, Dissolved	ug/L	1340	10000	10000	11300	10600	100	93	75-125	6	
Lead, Dissolved	ug/L	ND	500	500	502	496	100	99	75-125	1	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	MSV/5470	Analysis Method:	EPA 5030B/8260
QC Batch Method:	EPA 5030B/8260	Analysis Description:	8260 MSV Water 10 mL Purge
Associated Lab Samples:	259247001, 259247002, 259247004		

METHOD BLANK: 87156 Matrix: Water

Associated Lab Samples: 259247001, 259247002, 259247004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/26/11 09:45	
Ethylbenzene	ug/L	ND	1.0	09/26/11 09:45	
Toluene	ug/L	ND	1.0	09/26/11 09:45	
Xylene (Total)	ug/L	ND	3.0	09/26/11 09:45	
1,2-Dichloroethane-d4 (S)	%	106	72-127	09/26/11 09:45	
4-Bromofluorobenzene (S)	%	102	79-121	09/26/11 09:45	
Dibromofluoromethane (S)	%	109	81-119	09/26/11 09:45	
Toluene-d8 (S)	%	97	77-120	09/26/11 09:45	

LABORATORY CONTROL SAMPLE: 87334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.1	91	66-123	
Ethylbenzene	ug/L	20	17.8	89	67-122	
Toluene	ug/L	20	17.3	86	64-118	
Xylene (Total)	ug/L	60	52.9	88	68-122	
1,2-Dichloroethane-d4 (S)	%			102	72-127	
4-Bromofluorobenzene (S)	%			95	79-121	
Dibromofluoromethane (S)	%			107	81-119	
Toluene-d8 (S)	%			96	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 87346 87347

Parameter	Units	259247002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	19.8	18.2	98	90	63-138	8	
Ethylbenzene	ug/L	ND	20	20	19.6	18.5	97	92	65-135	6	
Toluene	ug/L	ND	20	20	19.2	18.0	93	87	64-128	7	
Xylene (Total)	ug/L	ND	60	60	57.8	54.1	95	89	65-133	7	
1,2-Dichloroethane-d4 (S)	%						101	104	72-127		
4-Bromofluorobenzene (S)	%						94	93	79-121		
Dibromofluoromethane (S)	%						107	110	81-119		
Toluene-d8 (S)	%						96	97	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	MSV/5475	Analysis Method:	EPA 5030B/8260
QC Batch Method:	EPA 5030B/8260	Analysis Description:	8260 MSV Water 10 mL Purge
Associated Lab Samples:	259247005, 259247006, 259247010		

METHOD BLANK: 87227 Matrix: Water

Associated Lab Samples: 259247005, 259247006, 259247010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/26/11 23:47	
Ethylbenzene	ug/L	ND	1.0	09/26/11 23:47	
Toluene	ug/L	ND	1.0	09/26/11 23:47	
Xylene (Total)	ug/L	ND	3.0	09/26/11 23:47	
1,2-Dichloroethane-d4 (S)	%	115	72-127	09/26/11 23:47	
4-Bromofluorobenzene (S)	%	99	79-121	09/26/11 23:47	
Dibromofluoromethane (S)	%	108	81-119	09/26/11 23:47	
Toluene-d8 (S)	%	101	77-120	09/26/11 23:47	

LABORATORY CONTROL SAMPLE: 87228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.6	108	66-123	
Ethylbenzene	ug/L	20	22.6	113	67-122	
Toluene	ug/L	20	21.1	105	64-118	
Xylene (Total)	ug/L	60	65.4	109	68-122	
1,2-Dichloroethane-d4 (S)	%			110	72-127	
4-Bromofluorobenzene (S)	%			99	79-121	
Dibromofluoromethane (S)	%			106	81-119	
Toluene-d8 (S)	%			102	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 87886 87887

Parameter	Units	259224004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	24.8	21.9	124	109	63-138	13	
Ethylbenzene	ug/L	ND	20	20	25.5	23.1	127	116	65-135	10	
Toluene	ug/L	ND	20	20	23.9	21.6	119	108	64-128	10	
Xylene (Total)	ug/L	ND	60	60	73.5	66.3	122	110	65-133	10	
1,2-Dichloroethane-d4 (S)	%						113	109	72-127		
4-Bromofluorobenzene (S)	%						99	99	79-121		
Dibromofluoromethane (S)	%						104	108	81-119		
Toluene-d8 (S)	%						101	101	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	MSV/5483	Analysis Method:	EPA 5030B/8260
QC Batch Method:	EPA 5030B/8260	Analysis Description:	8260 MSV Water 10 mL Purge
Associated Lab Samples:	259247003		

METHOD BLANK: 87462 Matrix: Water

Associated Lab Samples: 259247003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/27/11 14:20	
Ethylbenzene	ug/L	ND	1.0	09/27/11 14:20	
Toluene	ug/L	ND	1.0	09/27/11 14:20	
Xylene (Total)	ug/L	ND	3.0	09/27/11 14:20	
1,2-Dichloroethane-d4 (S)	%	101	72-127	09/27/11 14:20	
4-Bromofluorobenzene (S)	%	102	79-121	09/27/11 14:20	
Dibromofluoromethane (S)	%	109	81-119	09/27/11 14:20	
Toluene-d8 (S)	%	96	77-120	09/27/11 14:20	

LABORATORY CONTROL SAMPLE: 87463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.4	87	66-123	
Ethylbenzene	ug/L	20	17.5	88	67-122	
Toluene	ug/L	20	16.7	83	64-118	
Xylene (Total)	ug/L	60	51.7	86	68-122	
1,2-Dichloroethane-d4 (S)	%			107	72-127	
4-Bromofluorobenzene (S)	%			93	79-121	
Dibromofluoromethane (S)	%			114	81-119	
Toluene-d8 (S)	%			95	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 87801 87802

Parameter	Units	259247003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	1.5	20	20	20.2	19.2	93	88	63-138	5	
Ethylbenzene	ug/L	131	20	20	152	147	105	80	65-135	3	
Toluene	ug/L	2.6	20	20	21.3	20.1	93	87	64-128	6	
Xylene (Total)	ug/L	477	60	60	609	600	221	204	65-133	2 M1	
1,2-Dichloroethane-d4 (S)	%						97	100	72-127		
4-Bromofluorobenzene (S)	%						92	91	79-121		
Dibromofluoromethane (S)	%						109	108	81-119		
Toluene-d8 (S)	%						98	97	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: MSV/5507 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 259247007, 259247008, 259247009, 259247012, 259247013, 259247017

METHOD BLANK: 88088 Matrix: Water
Associated Lab Samples: 259247007, 259247008, 259247009, 259247012, 259247013, 259247017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/30/11 10:43	
Ethylbenzene	ug/L	ND	1.0	09/30/11 10:43	
Toluene	ug/L	ND	1.0	09/30/11 10:43	
Xylene (Total)	ug/L	ND	3.0	09/30/11 10:43	
1,2-Dichloroethane-d4 (S)	%	99	72-127	09/30/11 10:43	
4-Bromofluorobenzene (S)	%	104	79-121	09/30/11 10:43	
Dibromofluoromethane (S)	%	101	81-119	09/30/11 10:43	
Toluene-d8 (S)	%	103	77-120	09/30/11 10:43	

LABORATORY CONTROL SAMPLE: 88089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.9	94	66-123	
Ethylbenzene	ug/L	20	17.4	87	67-122	
Toluene	ug/L	20	17.6	88	64-118	
Xylene (Total)	ug/L	60	51.7	86	68-122	
1,2-Dichloroethane-d4 (S)	%			96	72-127	
4-Bromofluorobenzene (S)	%			99	79-121	
Dibromofluoromethane (S)	%			99	81-119	
Toluene-d8 (S)	%			100	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 88128 88129

Parameter	Units	259247012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	21.3	21.2	106	106	63-138	.4	
Ethylbenzene	ug/L	ND	20	20	19.9	20.6	99	103	65-135	4	
Toluene	ug/L	ND	20	20	19.8	20.5	99	102	64-128	3	
Xylene (Total)	ug/L	ND	60	60	59.6	61.0	99	102	65-133	2	
1,2-Dichloroethane-d4 (S)	%						99	99	72-127		
4-Bromofluorobenzene (S)	%						101	101	79-121		
Dibromofluoromethane (S)	%						101	100	81-119		
Toluene-d8 (S)	%						100	102	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: MSV/5523 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 259247011, 259247013, 259247014, 259247015, 259247016

METHOD BLANK: 88533 Matrix: Water
Associated Lab Samples: 259247011, 259247013, 259247014, 259247015, 259247016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/03/11 09:01	
Ethylbenzene	ug/L	ND	1.0	10/03/11 09:01	
Toluene	ug/L	ND	1.0	10/03/11 09:01	
Xylene (Total)	ug/L	ND	3.0	10/03/11 09:01	
1,2-Dichloroethane-d4 (S)	%	93	72-127	10/03/11 09:01	
4-Bromofluorobenzene (S)	%	97	79-121	10/03/11 09:01	
Dibromofluoromethane (S)	%	97	81-119	10/03/11 09:01	
Toluene-d8 (S)	%	102	77-120	10/03/11 09:01	

LABORATORY CONTROL SAMPLE: 88534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.5	98	66-123	
Ethylbenzene	ug/L	20	18.5	93	67-122	
Toluene	ug/L	20	19.2	96	64-118	
Xylene (Total)	ug/L	60	55.0	92	68-122	
1,2-Dichloroethane-d4 (S)	%			89	72-127	
4-Bromofluorobenzene (S)	%			101	79-121	
Dibromofluoromethane (S)	%			95	81-119	
Toluene-d8 (S)	%			105	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 88535 88536

Parameter	Units	259247014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	3.0	20	20	19.9	18.0	84	75	63-138	10	
Ethylbenzene	ug/L	77.3	20	20	92.9	94.2	78	84	65-135	1	
Toluene	ug/L	11.4	20	20	29.7	27.5	92	80	64-128	8	
Xylene (Total)	ug/L	142	60	60	191	194	82	87	65-133	2	
1,2-Dichloroethane-d4 (S)	%						97	93	72-127		
4-Bromofluorobenzene (S)	%						98	101	79-121		
Dibromofluoromethane (S)	%						99	93	81-119		
Toluene-d8 (S)	%						100	100	77-120		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	MSV/5471	Analysis Method:	NWTPH-Gx
QC Batch Method:	NWTPH-Gx	Analysis Description:	NWTPH-Gx MSV Water
Associated Lab Samples:	259247001, 259247002, 259247003, 259247004		

METHOD BLANK: 87161 Matrix: Water

Associated Lab Samples: 259247001, 259247002, 259247003, 259247004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	09/26/11 09:28	
4-Bromofluorobenzene (S)	%	104	50-150	09/26/11 09:28	

LABORATORY CONTROL SAMPLE: 87162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	500	526	105	65-139	
4-Bromofluorobenzene (S)	%			100	50-150	

SAMPLE DUPLICATE: 87375

Parameter	Units	259247004 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	16.4J		
4-Bromofluorobenzene (S)	%	99	101	2	

SAMPLE DUPLICATE: 87376

Parameter	Units	259208021 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	12.4J		
4-Bromofluorobenzene (S)	%	103	102	1	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: MSV/5476 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx MSV Water
Associated Lab Samples: 259247005, 259247006, 259247010

METHOD BLANK: 87229 Matrix: Water

Associated Lab Samples: 259247005, 259247006, 259247010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	09/26/11 23:47	
4-Bromofluorobenzene (S)	%	99	50-150	09/26/11 23:47	

LABORATORY CONTROL SAMPLE: 87230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	500	434	87	65-139	
4-Bromofluorobenzene (S)	%			98	50-150	

SAMPLE DUPLICATE: 87892

Parameter	Units	259247005 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	ND		
4-Bromofluorobenzene (S)	%	99	99	.02	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: MSV/5508 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx MSV Water
Associated Lab Samples: 259247007, 259247008, 259247009, 259247012, 259247017

METHOD BLANK: 88106 Matrix: Water
Associated Lab Samples: 259247007, 259247008, 259247009, 259247012, 259247017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	09/30/11 10:43	
4-Bromofluorobenzene (S)	%	104	50-150	09/30/11 10:43	

LABORATORY CONTROL SAMPLE: 88107

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	500	491	98	65-139	
4-Bromofluorobenzene (S)	%			100	50-150	

SAMPLE DUPLICATE: 88108

Parameter	Units	259404001 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	1370	1400	2	
4-Bromofluorobenzene (S)	%	103	99	3	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: MSV/5519 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx MSV Water
Associated Lab Samples: 259247011, 259247013, 259247014, 259247015, 259247016

METHOD BLANK: 88395 Matrix: Water
Associated Lab Samples: 259247011, 259247013, 259247014, 259247015, 259247016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	50.0	10/03/11 09:01	
4-Bromofluorobenzene (S)	%	97	50-150	10/03/11 09:01	

LABORATORY CONTROL SAMPLE: 88396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	500	551	110	65-139	
4-Bromofluorobenzene (S)	%			101	50-150	

SAMPLE DUPLICATE: 88554

Parameter	Units	259247013 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	ug/L	45700	42400	7	
4-Bromofluorobenzene (S)	%	104	99	5	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	WET/3110	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	259247003, 259247009, 259247013, 259247014		

METHOD BLANK: 87209 Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	1.0	09/30/11 15:40	

LABORATORY CONTROL SAMPLE: 87210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	103	103	90-110	

SAMPLE DUPLICATE: 87211

Parameter	Units	259247003 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	226	225	.7	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: WET/3099

Analysis Method: SM 5210B

QC Batch Method: SM 5210B

Analysis Description: 5210B BOD, 5 day

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

METHOD BLANK: 86445

Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	09/26/11 15:35	

LABORATORY CONTROL SAMPLE: 86446

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	207	105	85-115	

SAMPLE DUPLICATE: 86447

Parameter	Units	259247014 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	ND	3.4		

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: WETA/2201 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

METHOD BLANK: 87370 Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	09/28/11 12:41	

LABORATORY CONTROL SAMPLE: 87371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	15	13.9	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 87372 87373

Parameter	Units	259211001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	5.2	15	15	20.9	20.1	105	100	90-110	4	

MATRIX SPIKE SAMPLE: 87374

Parameter	Units	259247003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	24.9	30	57.2	107	90-110	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: WETA/2204 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

METHOD BLANK: 87619 Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.050	09/29/11 16:50	

LABORATORY CONTROL SAMPLE: 87620

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1	0.90	90	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 87621 87622

Parameter	Units	259215001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	ND	1	1	1.1	1.0	106	104	90-110	3	

MATRIX SPIKE SAMPLE: 87623

Parameter	Units	259215002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	1	1.1	109	90-110	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch: WETA/2196 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

METHOD BLANK: 86864 Matrix: Water

Associated Lab Samples: 259247003, 259247009, 259247013, 259247014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	09/23/11 12:15	

LABORATORY CONTROL SAMPLE: 86865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	42.5	38.9	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86866 86867

Parameter	Units	259247003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	15.8	50	50	70.7	65.2	110	99	90-110	8	

MATRIX SPIKE SAMPLE: 86868

Parameter	Units	259280002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	47.5	50	102	109	90-110	

QUALITY CONTROL DATA

Project: 2611255

Pace Project No.: 259247

QC Batch:	WETA/2197	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
Associated Lab Samples:	259247003, 259247009, 259247013, 259247014		

METHOD BLANK:	87190	Matrix:	Water
Associated Lab Samples:	259247003, 259247009, 259247013, 259247014		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	09/26/11 17:19	

LABORATORY CONTROL SAMPLE & LCSD:		87191 87192									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
Total Organic Carbon	mg/L	10	9.9	9.7	99	97	90-110	2	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		87193 87194									
Parameter	Units	259247003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Total Organic Carbon	mg/L	3.0	10	10	12.1	12.5	91	95	75-125	3	

MATRIX SPIKE SAMPLE:		87690									
Parameter	Units	259280011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Total Organic Carbon	mg/L	13.8	10	22.5	87	75-125					

QUALIFIERS

Project: 2611255

Pace Project No.: 259247

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.

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

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.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

R1 RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255
Pace Project No.: 259247

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
259247003	MW-10_20110813	RSK 175	AIR/13191		
259247009	MW-3_20110813	RSK 175	AIR/13191		
259247013	MW-6_20110813	RSK 175	AIR/13191		
259247014	MW-7_20110813	RSK 175	AIR/13191		
259247001	DUP12_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247002	MW-1_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247003	MW-10_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247004	MW-11_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247005	MW-12_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247006	MW-13_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247007	MW-16_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247008	MW-17_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247009	MW-3_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247011	MW-4_20110813	EPA 3510	OEXT/4400	NWTPH-Dx	GCSV/2923
259247012	MW-5_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247013	MW-6_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247014	MW-7_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247015	MW-8_20110813	EPA 3510	OEXT/4397	NWTPH-Dx	GCSV/2921
259247016	MW-9_20110813	EPA 3510	OEXT/4400	NWTPH-Dx	GCSV/2923
259247001	DUP12_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247002	MW-1_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247003	MW-10_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247004	MW-11_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247005	MW-12_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247006	MW-13_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247007	MW-16_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247008	MW-17_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247009	MW-3_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247011	MW-4_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247012	MW-5_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247013	MW-6_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247014	MW-7_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247015	MW-8_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247016	MW-9_20110813	EPA 3010	MPRP/2495	EPA 6010	ICP/2380
259247003	MW-10_20110813	EPA 3010	MPRP/2494	EPA 6010	ICP/2379
259247009	MW-3_20110813	EPA 3010	MPRP/2494	EPA 6010	ICP/2379
259247013	MW-6_20110813	EPA 3010	MPRP/2494	EPA 6010	ICP/2379
259247014	MW-7_20110813	EPA 3010	MPRP/2494	EPA 6010	ICP/2379
259247001	DUP12_20110813	EPA 5030B/8260	MSV/5470		
259247002	MW-1_20110813	EPA 5030B/8260	MSV/5470		
259247003	MW-10_20110813	EPA 5030B/8260	MSV/5483		
259247004	MW-11_20110813	EPA 5030B/8260	MSV/5470		
259247005	MW-12_20110813	EPA 5030B/8260	MSV/5475		
259247006	MW-13_20110813	EPA 5030B/8260	MSV/5475		

Date: 10/03/2011 05:24 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 259247

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
259247007	MW-16_20110813	EPA 5030B/8260	MSV/5507		
259247008	MW-17_20110813	EPA 5030B/8260	MSV/5507		
259247009	MW-3_20110813	EPA 5030B/8260	MSV/5507		
259247010	TB1_20110813	EPA 5030B/8260	MSV/5475		
259247011	MW-4_20110813	EPA 5030B/8260	MSV/5523		
259247012	MW-5_20110813	EPA 5030B/8260	MSV/5507		
259247013	MW-6_20110813	EPA 5030B/8260	MSV/5507		
259247013	MW-6_20110813	EPA 5030B/8260	MSV/5523		
259247014	MW-7_20110813	EPA 5030B/8260	MSV/5523		
259247015	MW-8_20110813	EPA 5030B/8260	MSV/5523		
259247016	MW-9_20110813	EPA 5030B/8260	MSV/5523		
259247017	TB2_20110813	EPA 5030B/8260	MSV/5507		
259247001	DUP12_20110813	NWTPH-Gx	MSV/5471		
259247002	MW-1_20110813	NWTPH-Gx	MSV/5471		
259247003	MW-10_20110813	NWTPH-Gx	MSV/5471		
259247004	MW-11_20110813	NWTPH-Gx	MSV/5471		
259247005	MW-12_20110813	NWTPH-Gx	MSV/5476		
259247006	MW-13_20110813	NWTPH-Gx	MSV/5476		
259247007	MW-16_20110813	NWTPH-Gx	MSV/5508		
259247008	MW-17_20110813	NWTPH-Gx	MSV/5508		
259247009	MW-3_20110813	NWTPH-Gx	MSV/5508		
259247010	TB1_20110813	NWTPH-Gx	MSV/5476		
259247011	MW-4_20110813	NWTPH-Gx	MSV/5519		
259247012	MW-5_20110813	NWTPH-Gx	MSV/5508		
259247013	MW-6_20110813	NWTPH-Gx	MSV/5519		
259247014	MW-7_20110813	NWTPH-Gx	MSV/5519		
259247015	MW-8_20110813	NWTPH-Gx	MSV/5519		
259247016	MW-9_20110813	NWTPH-Gx	MSV/5519		
259247017	TB2_20110813	NWTPH-Gx	MSV/5508		
259247003	MW-10_20110813	SM 2320B	WET/3110		
259247009	MW-3_20110813	SM 2320B	WET/3110		
259247013	MW-6_20110813	SM 2320B	WET/3110		
259247014	MW-7_20110813	SM 2320B	WET/3110		
259247003	MW-10_20110813	SM 5210B	WET/3099	SM 5210B	WET/3111
259247009	MW-3_20110813	SM 5210B	WET/3099	SM 5210B	WET/3111
259247013	MW-6_20110813	SM 5210B	WET/3099	SM 5210B	WET/3111
259247014	MW-7_20110813	SM 5210B	WET/3099	SM 5210B	WET/3111
259247003	MW-10_20110813	EPA 300.0	WETA/2201		
259247009	MW-3_20110813	EPA 300.0	WETA/2201		
259247013	MW-6_20110813	EPA 300.0	WETA/2201		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611255

Pace Project No.: 259247

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
259247014	MW-7_20110813	EPA 300.0	WETA/2201		
259247003	MW-10_20110813	EPA 353.2	WETA/2204		
259247009	MW-3_20110813	EPA 353.2	WETA/2204		
259247013	MW-6_20110813	EPA 353.2	WETA/2204		
259247014	MW-7_20110813	EPA 353.2	WETA/2204		
259247003	MW-10_20110813	EPA 410.4	WETA/2196		
259247009	MW-3_20110813	EPA 410.4	WETA/2196		
259247013	MW-6_20110813	EPA 410.4	WETA/2196		
259247014	MW-7_20110813	EPA 410.4	WETA/2196		
259247003	MW-10_20110813	SM 5310C	WETA/2197		
259247009	MW-3_20110813	SM 5310C	WETA/2197		
259247013	MW-6_20110813	SM 5310C	WETA/2197		
259247014	MW-7_20110813	SM 5310C	WETA/2197		



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2
Cooler # 4

259247

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Required Lab Information:			Required Project Information:			Required Invoice Information:								
Lab Name:	Pace-Seattle		Site ID #:	2611255	Task:	WG_S_201108								
Address:			Delta project #	2611255		Address:								
940 S Harney Drive Seattle WA			Site Address:	19924 INTERNATIONAL BLVD		City/State:								
Lab PM:	Regina Ste Marie		City:	SEATAC	State:	WA	Reimbursement project?	Non-reimbursement project?						
Phone/Fax:	P: 206-957-2427 F:		Delta PM Name:	Bryan Taylor		Send EDD to:	copelldata@intelligentehs.com							
Lab PM email:			Phone/Fax:	P: 425-882-3528 F:		CC Hardcopy report to:	bryan.taylor@anteagroup.com							
Applicable Lab Quote #:			Delta PM Email:	bryan.taylor@anteagroup.com		CC Hardcopy report to:								
						Turn around time (days)	10							
						QC level Required:	Standard	Special						
						NJ Reduced Deliverable Package?								
						MA MCP Cert?	CT RCP Cert?	Mark One						
						Lab Project ID (lab use)								
						Requested Analyses								
ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER GROUND WATER WASTE WATER FRESH PRODUCT SOIL OIL WASTE AMBIENT AIR DUST GAS	MATRIX WATER SURFACE WATER WATER QC SLUDGE RADIATE OTHER ANIMAL TISSUE	MATRIX CODE	SAMPLE TYPE G-GRAB C-COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ SO ₄ Methanol Other	50/10 Lead Total Pb200/TEX WTRPH-DOX/SS/SCOR WTRPH-DOX	Comments/Lab Sample I.D.		
1	DUP12_20110813			WG	G	9-19-11	15:00	8	N	✓	✓	✓		
2	MW-1_20110813			WG			13:00	8						
3	MW-10_20110813			WG			10:20	8						
4	MW-11_20110813			WG			10:00	8						
5	MW-12_20110813			WG			9:40	8						
6	MW-13_20110813			WG										
7	MW-14_20110813			WG										
8	MW-15_20110813			WG										
9	MW-16_20110813			WG			11:20	8	N	✓	✓	✓		
10	MW-17_20110813			WG			14:30	8						
11	MW-3_20110813			WG			15:30	18						
12	TB1_20110813			W										
Additional Comments/Special Instructions:														
(Fe, Pb, Mn) MNA Parameters = Total Metals, dissolved metals, N+N, COD, BOD, TOC, methane/ethane/ethene Alkalinity, Sulfate.														
RELINQUISHED BY / AFFILIATION				DATE	TIME	ACCEPTED BY / AFFILIATION				DATE	TIME	Sample Receipt Conditions		
Megan Macdonald				9-19-11	16:00	Cecilia Moore/PACE				9/19/11	16:00	Y/N	Y/N	Y/N
												Y/N	Y/N	Y/N
												Y/N	Y/N	Y/N
												Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)														
UPS COURIER FEDEX				SAMPLER NAME AND SIGNATURE										
				Megan Macdonald										
US MAIL				mm										
				DATE Signed 9-19-11 Time: 16:00										
				Temp in °C										
				Samples on Ice?										
				Sample intact?										
				Trip Blank?										



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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


 antea group


 Pace Analytical
www.paceanalytical.com

Required Lab Information:				Required Project Information:				Required Invoice Information:			
Lab Name: Pace-Seattle	Site ID #: 2611255	Task: WG_S_201108	Send Invoice to:	Address:	City/State:	Phone #:	Turn around time (days): 10	QC level Required: Standard Y	Special:	Mark one	
Address:	Delta project # 142611255	Site Address: 19924 INTERNATIONAL BLVD	Reimbursement project?	Send EDD to: cpeidata@intelligenths.com	CC Hardcopy report to: bryan.taylor@anteagroup.com	CC Hardcopy report to:	MA MCP Cert?	CT RCP Cert?	Mark One		
Lab PM: Regina Sie Mane	City: SEATAC	State: WA	Non-reimbursement project?	Lab Project ID (lab use):	Requested Analyses:	Comments/Lab Sample I.D.					
Phone/Fax: P: 206-957-2427 F:	Delta PM Name: Bryan Taylor	Phone/Fax: P: 425-882-3528 F:	Mark one		6010LeadTotal 8260BTEX NWTPH-DX w/Silica Gel NWTPH-Gx MNA Padlock						
Lab PM email: bryan.taylor@anteagroup.com	Delta PM Email: bryan.taylor@anteagroup.com										
Applicable Lab Quote #:											

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 / .)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
								Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other						
1	MMW-4 20110813	WG	G	9-14-11	10:46	8	N														
2	MMW-5 20110813	WG			9:20	8															
3	MMW-6 20110813	WG			14:00	18															
4	MMW-7 20110813	WG			12:30	18															
5	MMW-8 20110813	WG			10:00	8															
6	MMW-9 20110813	WG			13:30	10															
7	TB2_20110813	W			13:30																
8																					
9																					
10																					
11																					
12																					

REINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions	
Bryan MacBride / Antea		9/11/11	4:00	Bryan MacBride / Pace		9/11/11	16:00	Y/N	Y/N
								Y/N	Y/N
								Y/N	Y/N
								Y/N	Y/N
								Y/N	Y/N

SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE	
UPS COURIER FEDEX	PRINT NAME OF SAMPLER	Bryan MacBride	
US MAIL	SIGNATURE OF SAMPLER	[Signature]	
	DATE Signed	9/19/11	
	Time	16:00	

Sample Container Count

2 5 9 2 4 7



CLIENT:

Antea

COC PAGE 1 of 2

COC ID#

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	BP3N	DG9U	VSG	Comments
1	6	1 ²²										1 ²²			
2	1	1										1			
3					2		1		1 ²²			1	3	3	
4															
5															
6															
7															
8															
9	↓	↓	↓		2	1 ²²	1		1 ²²			↓	3	3	
10	2														
11															
12															Trip Blank? Yes

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic		I	Wipe/Swab		

Sample Container Count

259247



CLIENT:

Antea

COC PAGE

2 of 2

COC ID#

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	BP3N	DG9U	VSG	Comments
1	6	1 ²										1 ²			
2	1	1										1			
3	1	1			2		1		1 ²			1	3	3	
4	1	1			2		1		1 ²			1	3	3	
5	1	1										1			
6	1	3										1			
7	2														
8															
9															
10															
11															
12															Trip Blank? Yes

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic		I	Wipe/Swab		



Sample Condition Upon Receipt

Client Name: Antea

Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ NoPacking Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____ Temp. Blank Yes ☒ NoThermometer Used 132013 or 101731962 or 226099 Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begunCooler Temperature 12.3°C, 12.7°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 09/19/11 CWTemp should be above freezing $\leq 6^{\circ}\text{C}$

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☒ Yes ☐ No ☐ N/A	6. <u>BOD</u>
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Follow Up / Hold Analysis Requested:	☐ Yes ☒ No ☐ N/A	8.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	9.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	10.
-Pace Containers Used:	☐ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	11.
Filtered volume received for Dissolved tests	☒ Yes ☐ No ☐ N/A	12. <u>to be lab filtered.</u>
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	☒ Yes ☐ No ☐ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☒ Yes ☐ No ☐ N/A	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	15.
Headspace in VOA Vials (>6mm):	☒ Yes ☐ No ☐ N/A	16.
Trip Blanks Present:	☒ Yes ☐ No ☐ N/A	17. <u>all the containers for MW-4 has sediment.</u>
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Creation Date:	<u>08/10/11</u>	

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: REMDate: 09/20/11

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)