



Antea USA, Inc.
 4006 148th Avenue NE
 Redmond, Washington 98052 USA
 www.anteagroup.com

TRANSMITTAL

TO:	Mr. Jack Raines
COMPANY:	Lake Chelan Boat Company
FROM:	Matthew R. Miller – Antea Group for Colony Insurance
DATE:	April 27, 2012

PROJECT LOCATION: 1418 West Woodin Avenue, Chelan Washington

ANTEA PROJECT NUMBER: STCG-422-2

ENCLOSED:

1	Well Installation Report Colony Claim #208188
---	--

SEND VIA:

<input checked="" type="checkbox"/> Regular Mail	<input type="checkbox"/> FedEx:
<input type="checkbox"/> Hand Delivery	<input type="checkbox"/> 2-Day
<input type="checkbox"/> Courier	<input type="checkbox"/> Saver (3-Day)
<input type="checkbox"/> Other	<input type="checkbox"/> Email
<input type="checkbox"/> First Priority O/N	
<input type="checkbox"/> Priority O/N	
<input type="checkbox"/> Standard O/N	

THESE ARE FOR:

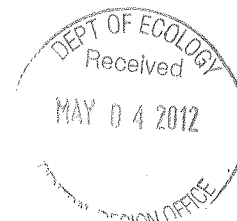
<input type="checkbox"/> See Explanation Below	<input type="checkbox"/> As Requested	<input type="checkbox"/> Information
<input type="checkbox"/> Your Files	<input type="checkbox"/> Processing	<input checked="" type="checkbox"/> Review
<input type="checkbox"/> Signature and Forwarding		<input type="checkbox"/> Resubmit

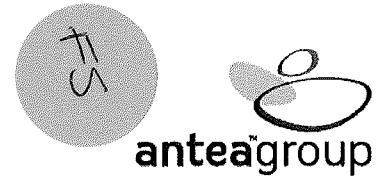
MESSAGE:

Thank you,

Matthew R. Miller
 Project Manager
 ANTEA GROUP

c.c. Washington State Department of Ecology Central Region
 Colony Group, Richmond, Virginia
 File, Antea Group





WELL INSTALLATION REPORT

Lake Chelan Boat Company
Colony Insurance Claim #208188
1418 West Woodin Ave
Chelan, WA 98816

Antea™ Group Project No. STCG-4222.0002
April 27, 2012

Prepared for:
Lake Chelan Boat Company
Mr. Jack Raines
1418 West Woodin Avenue
Chelan, WA 98816

Prepared by:
Antea™ Group
4006 148th Avenue NE
Redmond, WA 98052
800 477 4711



TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	1
2.0	BACKGROUND	2
3.0	SCOPE OF WORK.....	2
4.0	SOIL BORING AND GROUNDWATER MONITORING WELL INSTALLATION	3
5.0	WASTE MANAGEMENT.....	4
6.0	SAMPLE COLLECTION AND ANALYSIS	4
6.1	Soil Sampling	4
6.2	Groundwater Monitoring.....	4
6.3	Laboratory Analysis	5
7.0	ANALYTICAL RESULTS	5
7.1	Soil.....	5
7.2	Groundwater	5
8.0	CONCLUSIONS AND RECOMMENDATIONS	6
9.0	REMARKS	7



TABLE OF CONTENTS (Cont.)

Tables

Table 1	Summary of Soil Sample Analytical Results
Table 2	Summary of Soil Sample Analytical Results – Carcinogenic PAHs
Table 3	Summary of Soil Sample Analytical Results – Non Carcinogenic PAHs
Table 4	Summary of Soil Sample Analytical Results – EPH
Table 5	Summary of Groundwater Analytical Results and Groundwater Elevation Measurements
Table 6	Summary of Groundwater Analytical Results – Carcinogenic PAHs
Table 7	Summary of Groundwater Analytical Results – Non Carcinogenic PAHs

Figures

Figure 1	Site Location Map
Figure 2	Site Map
Figure 3	Soil Analytical Results Map –03/05 and 03/06/2012
Figure 4	Groundwater Hydrocarbon Distribution Map – 03/21/2012
Figure 5	Groundwater Elevation Contour Map – 03/21/12

Appendices

Appendix A	Boring Logs
Appendix B	Field Data Sheets
Appendix C	Waste Manifest Documentation
Appendix D	Analytical Laboratory Reports and Chain of Custody Documentation



Monitoring Well Installation Report

*Lake Chelan Boat Company
Colony Insurance Claim #208188
1418 West Woodin Ave, Chelan, WA 98816*

Antea™ Group (Antea Group) has prepared this report to summarize groundwater monitoring well installation activities performed at 1418 West Woodin Ave in Chelan, Washington (Figures 1 & 2). The assessment work was performed in March, 2012 in order to delineate potential soil and groundwater impacts following the removal of a diesel underground storage tank (UST). In addition, the soil data was used to define the limits of a planned excavation to remove impacted soils.

1.0 EXECUTIVE SUMMARY

On March 6 and 7, 2012, Antea Group personnel directed the advancement of four soil borings (B-1 through B-4) at the property (Figure 2). All four borings were completed as 2-inch groundwater monitoring wells (MW-1 through MW-4). Monitoring well MW-1 was set at a total depth of 20 feet below ground surface (bgs) with 15 feet of 0.010" slotted screen. Monitoring wells MW-2 and MW-3 were set at 25 feet bgs with 15 feet of 0.010" slotted screen, and MW-4 was set at 29 feet bgs with 20 feet of 0.010" slotted screen. Soil samples were collected during the installation activities of the groundwater monitoring wells at approximate 5 foot intervals.

Petroleum hydrocarbons were not detected above respective Washington State Model Toxic Control Act (MTCA) Method A cleanup levels for benzene, toluene, ethylbenzene, and xylenes (BTEX), and/or total petroleum hydrocarbons as diesel (TPH-D) or oil (TPH-O) in all soil analyzed. TPH-D was detected in sample B-2-11 at a concentration of 61 milligrams per kilogram (mg/kg). All other analytes did not exceed laboratory method reporting limits (MRLs)

On March 21, 2012 groundwater samples were collected from monitoring wells MW-1 through MW-4. Laboratory analytical results indicate that concentrations of petroleum hydrocarbons exceeded MTCA Method A cleanup levels for TPH-D in monitoring well MW-3 at a concentration of 1,300 micrograms per liter (ug/L). All other analytes were below MTCA Method A cleanup levels and/or laboratory MRLs.



2.0 BACKGROUND

Lake Chelan Boat Company (the Property) is an operating business located at 1418 West Woodin Avenue in Chelan, Washington (Figure 2). The Property consists of an office building, workshop, docks/dry dock, and gravel parking areas. One diesel above ground storage tank (AST) is present east of the office building and workshop.

On February 6, 2012, Antea Group was informed that a 10,000-gallon diesel UST was removed from the property on November 7, 2011. Environmental Associates, Inc oversaw the removal of the tank and noted that the tank was moderately rusted and pitted, but did not contain obvious holes. The property owner reported previous problems with the turbine at the north end of the tank. Environmental Associates, Inc collected soil samples from the bottom and sidewalls of the excavation. Laboratory analytical results indicate that concentrations exceeded MTCA Method A cleanup levels in the samples collected from the north and south bottom samples and from the north sidewall. Concentrations ranged from less than the laboratory MRL of 50 mg/kg to 24,000 mg/kg. The volume of diesel released from the tank is not known.

3.0 SCOPE OF WORK

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

- Developed a site-specific Health and Safety Plan;
- Contracted 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;
- Cleared for utilities to a minimum depth of 5 feet bgs using an air knife/vacuum rig;
- Drilled and installed four hollow-stem auger soil borings to a depths between 20 and 29 feet below grade; all four borings were completed as groundwater monitoring wells (MW-1 through MW-4) to depths between 20 and 29 feet bgs;
- Collected soil samples using a split-spoon sampler driven ahead of the drill bit into the undisturbed formation to obtain discrete soil samples;
- Performed examination and description of each sample using the Unified Soil Classification System (USCS) and standard geologic techniques;
- Submitted soil samples for quantitative chemical analysis from each boring interval;
- Developed newly installed groundwater monitoring wells MW-1 through MW-4 following well construction;
- Surveyed monitoring wells MW-1 through MW-4 based on an arbitrary on-site benchmark;
- Performed profiling, removal, and proper disposal of investigation derived waste, and;
- Prepared a report summarizing the findings of the investigation.



4.0 SOIL BORING AND GROUNDWATER MONITORING WELL INSTALLATION

On March 5 and 6, 2012, Antea Group personnel directed the drilling and installation of four soil borings, all of which were completed as groundwater monitoring wells (MW-1 through MW-14). The purpose of the monitoring well installations was to delineate the limits of additional excavation following the removal of a diesel UST. 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 a private locating service.

Prior to drilling, each boring location was cleared to a depth of at least five feet bgs with an airknife/vacuum truck. Following utility clearing, all borings were advanced using hollow-stem auger drilling equipment operated by Cascade Drilling, Inc. to a total depths ranging between 20 and 29 feet bgs. Soil samples were collected at approximate 5 foot depths using a split-spoon sampler driven ahead of the drill bit into undisturbed formation materials. Select soil samples collected were submitted to ALS Laboratory for quantitative chemical analysis.

All four borings were completed as groundwater monitoring wells. MW-1 was set at 20 feet bgs with 15 feet of 0.010" slotted screen, MW-2 and MW-3 were set at 25 feet bgs with 15 feet of 0.010" slotted screen, and MW-4 was set at 29 feet bgs with 20 feet of 0.010" slotted screen. All wells were constructed of 2" diameter schedule 40 (sch 40) polyvinyl chloride (PVC) casing. Annular space consisted of #2/12 filter sand two feet above the screen followed with a seal of bentonite chips placed from the top of the filter pack to within approximately 2 feet of the ground surface. A flush-mount monument was then cemented in place over the well head.

15' screen length
(LONG, but
lake fluctuations
large... dilution)

On March 6, 2012 MW-1 through MW-4 were developed after installation was complete. Development activities were completed by purging the wells with bailer until the amount of suspended sediment in the purge water decreased significantly and the water appeared clear. Approximately 15 gallons of groundwater was extracted from each well during development. On March 27, 2012 Antea Group personnel surveyed the top of casing (TOC) elevations for wells MW-1 through MW-4. An arbitrary elevation of 100.00 feet above was assigned to MW-3.

Down-hole drilling and sampling equipment was pressure-washed in a water-alconox solution and triple rinsed between each boring and sampling interval to prevent cross-contamination. Boring logs, soil sampling intervals, lithology descriptions, and well completion details are included in Appendix A. Field data sheets are included in Appendix B.



5.0 WASTE MANAGEMENT

Soil cuttings, decontamination fluids, and purge water generated during drilling activities were temporarily stored in labeled 55-gallon drums. Analytical data for soil and water samples were used for disposal profiling. The soil was combined with additional soil excavated in March 2012 and disposed at the Waste Management Greater Wenatchee Regional Landfill. The water drums will be disposed at a State Approved Disposal facility following the next groundwater sampling event planned for June 2012. Waste manifest documentation is included in Appendix C.

6.0 SAMPLE COLLECTION AND ANALYSIS

6.1 Soil Sampling

Soil samples from each location were selected for quantitative chemical analysis based on field screening for the potential of petroleum hydrocarbon-impacted soils. Nine soil samples were submitted for laboratory analysis. Each sample collected was individually labeled, registered on a Chain-of-Custody form, and placed in a chilled cooler pending delivery to a certified analytical laboratory. Summaries of soil analytical results are presented in Table 1 through Table 4 and Figure 3.

6.2 Groundwater Monitoring

On March 21, 2012, Antea Group personnel collected groundwater samples from monitoring wells MW-1 through MW-4. Tasks performed and associated with groundwater monitoring included:

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

Low flow techniques were used to collect the groundwater samples. New, dedicated polyethylene tubing was used at each monitoring well. Geochemical parameters were collected with a YSI multi-meter. Groundwater samples were collected in laboratory-supplied containers and individually labeled, registered on a Chain-of-Custody form, and placed in chilled coolers pending delivery to a certified analytical laboratory. The approximate groundwater flow direction observed at the property on March 19, 2012 was to the northwest at a gradient of approximately 0.002 foot per linear foot. A summary of groundwater analytical results is presented in Table 5 through Table 7 and Figure 4. A groundwater elevation contour map is included as Figure 5.



6.3 Laboratory Analysis

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

- TPH-D and TPH-O using Northwest Method NWTPH-Dx with Silica Gel cleanup;
- BTEX using EPA Method 8021;
- Carcinogenic and Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270; and,
- Extractable Petroleum Hydrocarbons (EPH) by Northwest Method NWEPH.

7.0 ANALYTICAL RESULTS

7.1 Soil

Laboratory analytical results indicate that TPH-D was detected in sample B-2-11 at a concentration of 61 mg/kg. No concentrations of TPH-D, TPH-O, BTEX and PAHs were detected above the MTCA Method A cleanup levels and/or laboratory MRLs in any other soil samples collected during installation of monitoring wells MW-1 through MW-14. Soil analytical results are presented in Table 1 through Table 4 and Figure 3. Soil analytical reports are included in Appendix D.

7.2 Groundwater

The laboratory analytical results indicate that concentrations of TPH-D exceeded MTCA Method A cleanup levels in the sample collected from MW-3 at a concentration of 1,300 ug/L. The groundwater sample collected from MW-4 exceeded MTCA Method A cleanup levels for total carcinogenic PAHs at a concentration of 0.108 ug/L. All other analytes were below MTCA Method A cleanup levels and/or laboratory MRLs. Groundwater analytical results are presented in Table 5 through Table 7 and Figure 4. Groundwater analytical reports are included in Appendix D.



8.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group directed the drilling and installation of four groundwater monitoring wells (MW-1 through MW-4) at the Property on March 5 and 6, 2012. The purpose of the work was to assess soil and groundwater conditions at the site and to further delineate the limits of additional excavation following the removal of a diesel UST.

Laboratory analytical results for soil indicate that the excavation does not need to be expanded laterally. In order to address MTCA Method A exceedences in groundwater, Antea Group will apply bioremediation compounds to the bottom of the excavation. As groundwater levels rise to their seasonal highs in 2012, the bioremediation compounds will treat dissolved phase concentrations of constituents of concern in groundwater. Antea Group will continue to conduct quarterly groundwater monitoring and sampling in order to rate the effectiveness of the bioremediation and excavation activities.

Please call (425) 498-7722 if you have any questions regarding the contents of this report.

9.0 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.

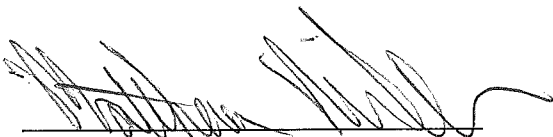
Prepared by:



Megan MacDonald
Project Professional

Date: April 27, 2012

Reviewed by:



Matthew Miller, LG
Project Manager

Date: April 27, 2012



Matthew Miller

Tables

Table 1	Summary of Soil Sample Analytical Results
Table 2	Summary of Soil Sample Analytical Results – Carcinogenic PAHs
Table 3	Summary of Soil Sample Analytical Results – Non Carcinogenic PAHs
Table 4	Summary of Soil Sample Analytical Results – EPH
Table 5	Summary of Groundwater Analytical Results and Groundwater Elevation Measurements
Table 6	Summary of Groundwater Analytical Results – Carcinogenic PAHs
Table 7	Summary of Groundwater Analytical Results – Non Carcinogenic PAHs

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
 Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date Sampled	Depth (feet bgs)	TPH Diesel (mg/kg)	TPH Oil (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)
B-1-11	3/5/2012	11	<25	<50	<0.030	<0.050	<0.050	<0.20
B-1-16	3/5/2012	16	<25	<50	<0.030	<0.050	<0.050	<0.20
B-2-11	3/5/2012	11	61	<50	<0.030	<0.050	<0.050	<0.20
B-2-16	3/5/2012	16	NA	NA	<0.030	<0.050	<0.050	<0.20
B-3-11	3/6/2012	11	<25	<50	<0.030	<0.050	<0.050	<0.20
B-3-16	3/6/2012	16	<25	<50	<0.030	<0.050	<0.050	<0.20
B-3-18	3/6/2012	18	<25	<50	<0.030	<0.050	<0.050	<0.20
B-4-16	3/6/2012	16	<25	<50	<0.030	<0.050	<0.050	<0.20
B-4-18	3/6/2012	18	<25	<50	<0.030	<0.050	<0.050	<0.20
MTCA Method A Cleanup Levels:			2,000	2,000	0.03	7	6	9

Notes:
 bgs = below ground surface
 mg/kg = milligrams per kilogram
 < = Less than reporting limit
 TPH = total petroleum hydrocarbons
 NA = not analyzed
 TPH as diesel and oil by Method NWTPH-Dx with silica gel cleanup
 BTEX - Analysis by EPA Method 8021
BOLD indicates exceedance of cleanup levels

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS - CARCINOGENIC PAHS
 Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date	Depth (feet bgs)	Benzo[A] Anthracene (mg/kg)	Chrysene (mg/kg)	Benzo[B] Fluoranthene (mg/kg)	Benzo[K] Fluoranthene (mg/kg)	Benzo[A] Pyrene (mg/kg)	Indeno[1,2,3-Cd] Pyrene (mg/kg)	Dibenzo[A,H] Anthracene (mg/kg)	Total cPAHs
B-1-11	3/5/2012	11	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-1-16	3/5/2012	16	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-2-11	3/5/2012	11	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-3-11	3/6/2012	11	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-3-16	3/6/2012	16	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-3-18	3/6/2012	18	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-4-16	3/6/2012	16	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
B-4-18	3/6/2012	18	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.0000
MTCA Method A Cleanup Level for Total cPAHs										0.1

Notes:

- bgs = below ground surface
- mg/kg = milligrams per kilogram
- Bold indicates cleanup level exceedence**
- < = Not Detected above the Reporting Limit
- PAHs = Polycyclic Aromatic Hydrocarbons, Analysis by EPA Method 8270 SIM

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS - NON-CARCINOGENIC PAHs

Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date	Depth (feet bgs)	Ace-naphthene (mg/kg)	Ace-naphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(g,h,i) Perylene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1-Methyl-naphthalene (mg/kg)	2-Methyl-naphthalene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Total Naphthalenes (mg/kg)
B-1-11	3/5/2012	11	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-1-16	3/5/2012	16	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-2-11	3/5/2012	11	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-3-11	3/6/2012	11	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-3-16	3/6/2012	16	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-3-18	3/6/2012	18	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-4-16	3/6/2012	16	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
B-4-18	3/6/2012	18	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.060
MTCA Method A Cleanup Levels:			--	--	--	--	--	--	--	--	5	--	--	5
<p>Notes: bgs = below ground surface mg/kg = milligrams per kilogram NA = Not Analyzed Bold indicates cleanup level exceedence < = Not detected above the laboratory method reporting limit PAHs = Polycyclic Aromatic Hydrocarbons, Analysis by EPA Method 8270 SIM</p>														

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS - EPH

Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date	Depth (feet bgs)	>C8-C10 Aliphatics (mg/kg)	>C10-C12 Aliphatics (mg/kg)	>C12-C16 Aliphatics (mg/kg)	>C16-C21 Aliphatics (mg/kg)	>C21-C34 Aliphatics (mg/kg)	>C8-C10 Aromatics (mg/kg)	>C10-C12 Aromatics (mg/kg)	>C12-C16 Aromatics (mg/kg)	>C16-C21 Aromatics (mg/kg)	>C21-C34 Aromatics (mg/kg)
B-2-11	3/5/2012	11	<5.0	<5.0	5.4	26	30	<5.0	<5.0	<5.0	16	21
B-3-18	3/6/2012	18	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
MTCA Method A Cleanup Levels:			--	--	--	--	--	--	--	--	--	--

Notes:

bgs = below ground surface

mg/kg = milligrams per kilogram

NA = Not Analyzed

Bold indicates cleanup level exceedence

< = Not detected above the laboratory method reporting limit

Aliphatics & Aromatics Analysis by NWEPH

TABLE 5
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS AND GROUNDWATER ELEVATION MEASUREMENTS

Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date Sampled	TPH Diesel (µg/L)	TPH Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TOC (feet)	DTW (feet)	SPH Thickness (feet)	GWE (feet)
MW-1	3/21/2012	<130	<250	<1.0	<1.0	<1.0	<3.0	99.50	19.63	0.00	79.87
MW-2	3/21/2012	260	<250	<1.0	<1.0	<1.0	<3.0	99.22	19.38	0.00	79.84
MW-3	3/21/2012	1,300	<250	<1.0	<1.0	9.3	44	100.00	20.10	0.00	79.90
MW-4	3/21/2012	320	<250	<1.0	<1.0	<1.0	<3.0	102.25	22.44	0.00	79.81
MTCA Method A Cleanup Levels:		500	500	5	1,000	700	1,000	-	-	-	-

Notes:

µg/L= micrograms per liter

< = Less than reporting limit

TOC - Top of casing elevation (feet)

DTW - Depth to groundwater (feet)

SPH Thickness - Separate-phase hydrocarbon thickness (feet)

GWE - Groundwater table elevation (feet)

TPH = Total petroleum hydrocarbons

TPH as diesel and oil by Method NWTPH-Dx with silica gel cleanup

BTEX - Analysis by EPA Method 8021

Bold indicates exceedance of cleanup levels

*MW-3
 not impacted
 by LUST?
 Diff Source?*

*MW-3
 diesel
 MW-4
 CPAH*

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - CARCINOGENIC PAHS
 Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date	Benzo[A] Anthracene (ug/L)	Chrysene (ug/L)	Benzo[B] Fluoranthene (ug/L)	Benzo[K] Fluoranthene (ug/L)	Benzo[A] Pyrene (ug/L)	Indeno[1,2,3-Cd] Pyrene (ug/L)	Dibenz[A,H] Anthracene (ug/L)	Total cPAHs
MW-1	3/21/2012	<0.020	<0.020	<0.020	<0.020	<0.020	0.040	0.026	0.066
MW-2	3/21/2012	<0.020	<0.020	<0.020	<0.020	<0.020	0.052	0.034	0.086
MW-3	3/21/2012	<0.020	<0.020	<0.020	<0.020	<0.020	0.059	0.039	0.098
MW-4	3/21/2012	<0.020	<0.020	0.023	<0.020	<0.020	0.050	0.035	0.108
MTCA Method A Cleanup Level for Total cPAHs									0.1

Notes:

bgs = below ground surface

ug/L = micrograms per liter

Bold indicates cleanup level exceedence

< = Not Detected above the Reporting Limit

PAHs = Polycyclic Aromatic Hydrocarbons, Analysis by EPA Method 8270 SIM

TABLE 7
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - NON-CARCINOGENIC PAHs

Lake Chelan Boat Company
 1418 West Woodin Ave
 Chelan, Washington

Sample ID	Date	Ace-naphthene (ug/L)	Ace-naphthylene (ug/L)	Anthracene (ug/L)	Benzo(g,h,i) Perylene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	1-Methyl-naphthalene (ug/L)	2-Methyl-naphthalene (ug/L)	Naphthalene (ug/L)	Phenanthrene (ug/L)	Pyrene (ug/L)	Total Naphthalenes (ug/L)
MW-1	3/21/2012	<0.020	<0.020	<0.020	0.086	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
MW-2	3/21/2012	<0.020	<0.020	<0.020	0.094	0.030	<0.020	0.043	<0.020	<0.020	<0.020	<0.020	0.043
MW-3	3/21/2012	0.75	0.089	<0.020	0.11	<0.020	1.8	7.7	0.16	14	<0.020	<0.020	21.860
MW-4	3/21/2012	<0.020	<0.020	<0.020	0.083	0.096	<0.020	0.037	<0.020	<0.020	<0.020	0.046	0.037
MTCA Method A Cleanup Levels:		--	--	--	--	--	--	--	--	160	--	--	160

Notes:
 bgs = below ground surface
 ug/L = micrograms per liter
 NA = Not Analyzed
Bold indicates cleanup level exceedence
 < = Not detected above the laboratory method reporting limit
 PAHs = Polycyclic Aromatic Hydrocarbons, Analysis by EPA Method 8270 SIM



Figures

Figure 1	Site Location Map
Figure 2	Site Map
Figure 3	Soil Analytical Results Map – 03/05/2012 and 03/06/2012
Figure 4	Groundwater Hydrocarbon Distribution Map - 03/21/2012
Figure 5	Groundwater Elevation Contour Map – 03/21/2012

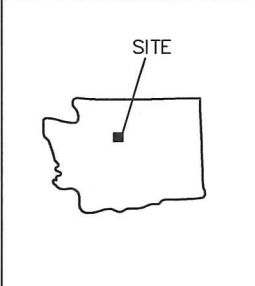


PROJECT NUMBER STCG-422

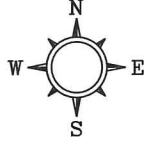
APPROVED BY

CHECKED BY

DRAWN BY ICD 03/14/2012



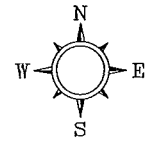
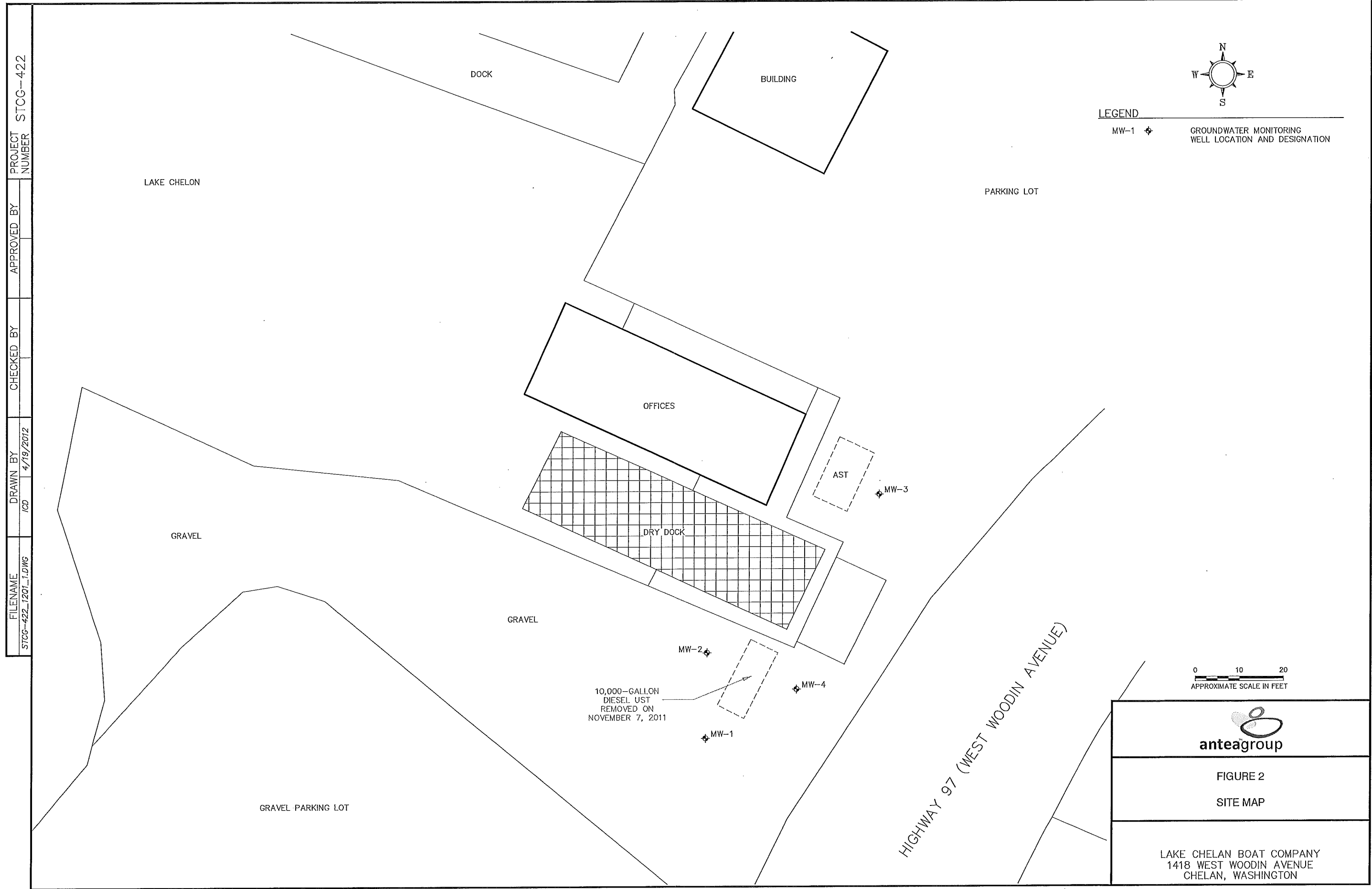
LATITUDE 47D 50M 09S NORTH
 LONGITUDE 120D 02M 16S WEST
 U.S. GEOLOGICAL SURVEY-2004
 7.5 MINUTE QUADRANGLE MAP
 CHELAN, WASHINGTON



LAKE CHELAN BOAT COMPANY

FIGURE 1
 SITE LOCATION MAP

1418 WEST WOODIN AVENUE
 CHELAN, WASHINGTON



LEGEND
 MW-1 ♦ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

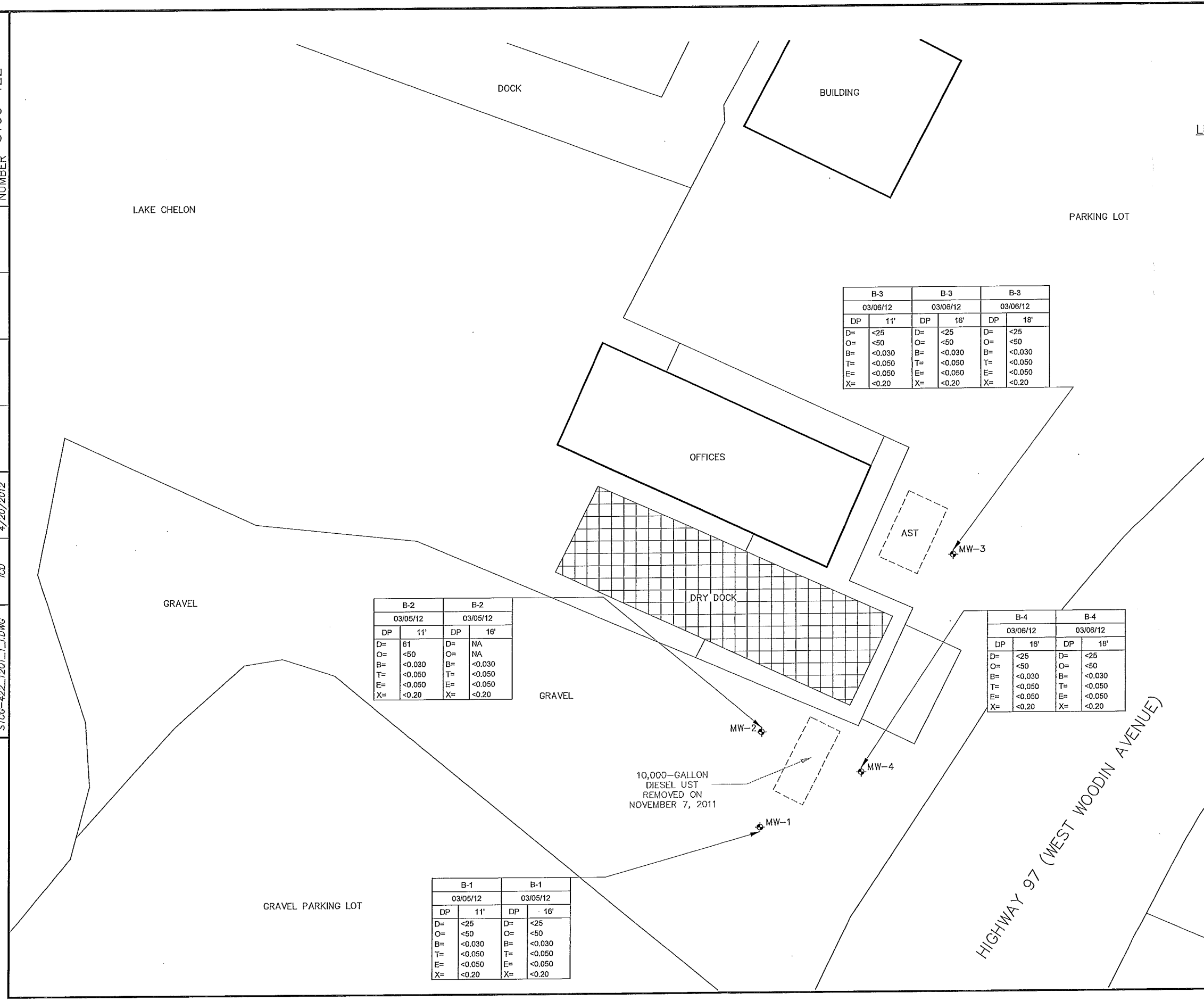
0 10 20
 APPROXIMATE SCALE IN FEET



FIGURE 2
 SITE MAP

LAKE CHELAN BOAT COMPANY
 1418 WEST WOODIN AVENUE
 CHELAN, WASHINGTON

PROJECT NUMBER STCG-422
 APPROVED BY
 CHECKED BY
 DRAWN BY ICD 4/20/2012
 FILENAME STCG-422_1201_1_1.DWG



B-3		B-3		B-3	
03/06/12		03/06/12		03/06/12	
DP	11'	DP	16'	DP	18'
D=	<25	D=	<25	D=	<25
O=	<50	O=	<50	O=	<50
B=	<0.030	B=	<0.030	B=	<0.030
T=	<0.050	T=	<0.050	T=	<0.050
E=	<0.050	E=	<0.050	E=	<0.050
X=	<0.20	X=	<0.20	X=	<0.20

B-2		B-2	
03/05/12		03/05/12	
DP	11'	DP	16'
D=	61	D=	NA
O=	<50	O=	NA
B=	<0.030	B=	<0.030
T=	<0.050	T=	<0.050
E=	<0.050	E=	<0.050
X=	<0.20	X=	<0.20

B-4		B-4	
03/06/12		03/06/12	
DP	16'	DP	18'
D=	<25	D=	<25
O=	<50	O=	<50
B=	<0.030	B=	<0.030
T=	<0.050	T=	<0.050
E=	<0.050	E=	<0.050
X=	<0.20	X=	<0.20

B-1		B-1	
03/05/12		03/05/12	
DP	11'	DP	16'
D=	<25	D=	<25
O=	<50	O=	<50
B=	<0.030	B=	<0.030
T=	<0.050	T=	<0.050
E=	<0.050	E=	<0.050
X=	<0.20	X=	<0.20

LEGEND

MW-1 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

D TPH-d - TOTAL PETROLEUM HYDROCARBONS AS DIESEL (mg/kg)

O TPH-o - TOTAL PETROLEUM HYDROCARBONS AS OIL (mg/kg)

B BENZENE (mg/kg)

T TOLUENE (mg/kg)

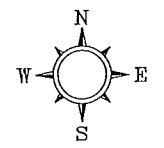
E ETHYLBENZENE (mg/kg)

X TOTAL XYLENES (mg/kg)

mg/kg MILLIGRAMS PER KILOGRAM

DP SAMPLING DEPTH (FEET)

NA NOT ANALYZED



0 10 20
 APPROXIMATE SCALE IN FEET

FIGURE 3

SOIL ANALYTICAL RESULTS MAP
 03/05/2012 - 03/06/2012

LAKE CHELAN BOAT COMPANY
 1418 WEST WOODIN AVENUE
 CHELAN, WASHINGTON

PROJECT NUMBER STCG-422

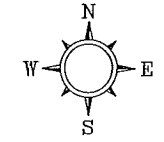
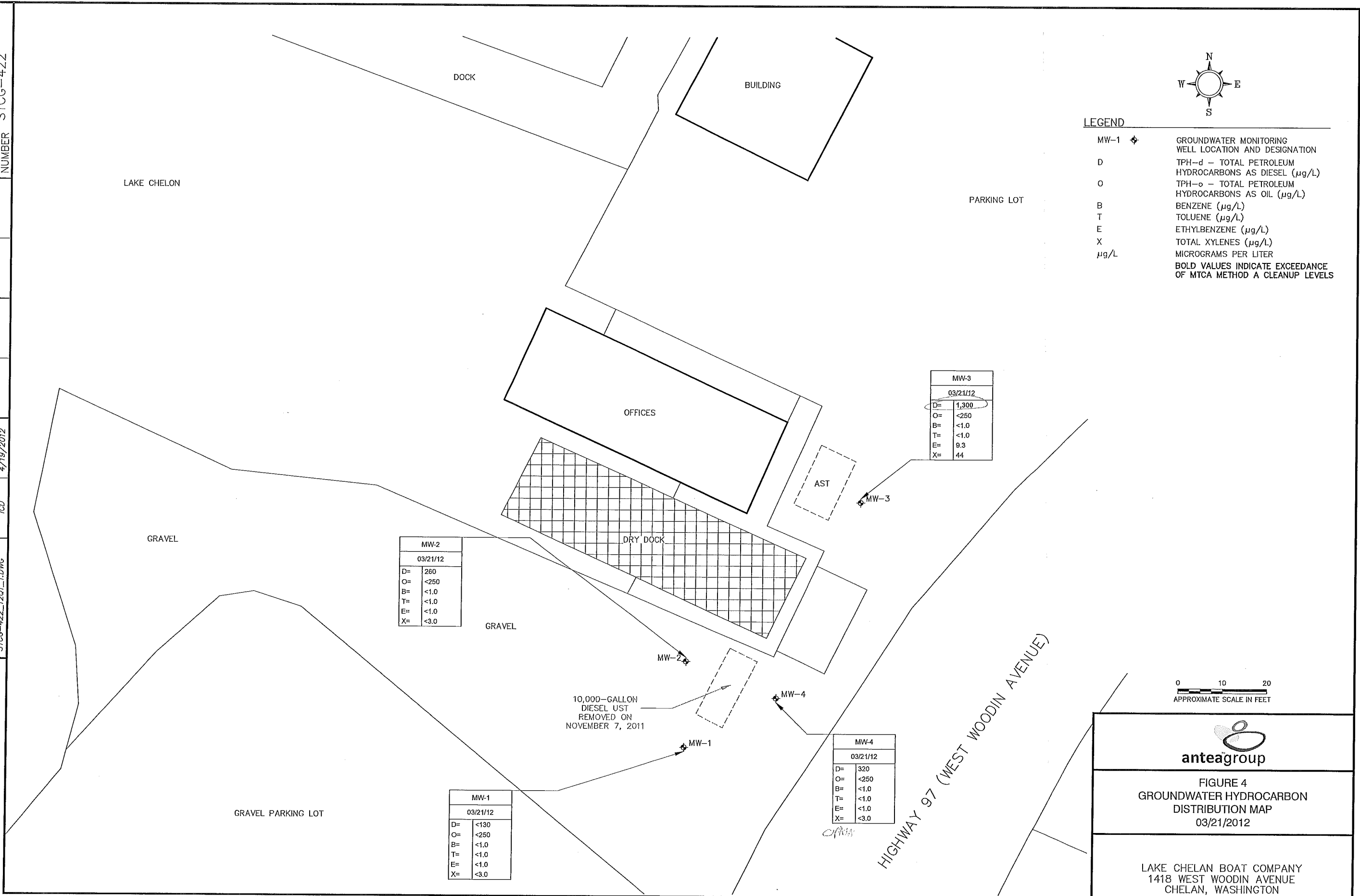
APPROVED BY

CHECKED BY

DRAWN BY

FILENAME

STCG-422_1201_1.DWG



LEGEND

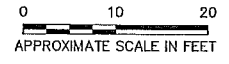
MW-1	◆	GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
D		TPH-d - TOTAL PETROLEUM HYDROCARBONS AS DIESEL (µg/L)
O		TPH-o - TOTAL PETROLEUM HYDROCARBONS AS OIL (µg/L)
B		BENZENE (µg/L)
T		TOLUENE (µg/L)
E		ETHYLBENZENE (µg/L)
X		TOTAL XYLENES (µg/L)
		µg/L
		BOLD VALUES INDICATE EXCEEDANCE OF MTCA METHOD A CLEANUP LEVELS

MW-2	
03/21/12	
D=	260
O=	<250
B=	<1.0
T=	<1.0
E=	<1.0
X=	<3.0

MW-3	
03/21/12	
D=	1,300
O=	<250
B=	<1.0
T=	<1.0
E=	9.3
X=	44

MW-1	
03/21/12	
D=	<130
O=	<250
B=	<1.0
T=	<1.0
E=	<1.0
X=	<3.0

MW-4	
03/21/12	
D=	320
O=	<250
B=	<1.0
T=	<1.0
E=	<1.0
X=	<3.0




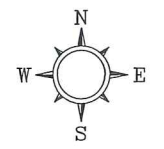

antegrup

FIGURE 4
 GROUNDWATER HYDROCARBON
 DISTRIBUTION MAP
 03/21/2012

LAKE CHELAN BOAT COMPANY
 1418 WEST WOODIN AVENUE
 CHELAN, WASHINGTON

STCG-422_1201_1.DWG
 FILENAME
 STCG-422-1201-1.DWG
 DRAWN BY
 ICD
 4/19/2012
 CHECKED BY
 APPROVED BY
 PROJECT NUMBER
 STCG-422



- LEGEND**
- MW-1 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
 - 79.90 GROUNDWATER ELEVATION (FEET)
 - 79.86 GROUNDWATER ELEVATION CONTOUR LINE (FEET)
 - 0.002 ft/ft APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)

0 10 20
 APPROXIMATE SCALE IN FEET



FIGURE 5
 GROUNDWATER ELEVATION CONTOUR MAP
 03/21/2012

LAKE CHELAN BOAT COMPANY
 1418 WEST WOODIN AVENUE
 CHELAN, WASHINGTON

MW-3 TPH-D
 Contam.
 source?
 MW-4 CPAH

Appendix A

Boring Logs

WELL/BORING LOCATION MAP

Antea Group

WELL/BORING: MW-1

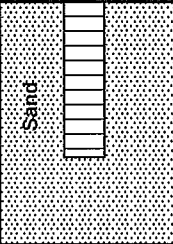
INSTALLATION DATE: 03/05/2012	DRILLING METHOD: HSA
PROJECT: STCG-4222-0001	SAMPLING METHOD: SPT
CLIENT: Lake Chelan Boat Company	BORING DIAMETER: 8.25 inches
LOCATION: 1418 West Woodin Avenue	BORING DEPTH: 21.5 feet
CITY: Chelan	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 5 - 20 feet (0.010")
DRILLER: Cascade Drilling, Inc.	SAND PACK: 3 - 21.5 feet (2X12)

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	99.22
	▽	▼									SURVEY DATE:	3/27/12
											DTW:	19.63 on 3/21/12
											DESCRIPTION/LOGGED BY: Megan MacDonald	
Concrete						1						Gravel/Dirt Surface
Bentonite						2						
						3						
						4						
			MST	0	7 9 10	5			SM			Silty SAND with Gravel: brown; no staining; no odor.
						6						
						7						
						8						
						9						
			MST	0	7 7 6	10			ML			Same as Above.
						11						Sandy SILT: gray; tight; no odor.
						12			GP			Sandy-Silty GRAVEL: gray; no staining; no odor.
						13						Driller notes water at 12.5 feet bgs.
						14						
			MST	0	10 11 13	15			SM			Silty SAND: brown; no odor.
						16			SW			SAND: gray; fine to coarse sand; no odor.
			DRY	0	-	17						Driller notes a bit of bedrock at 17.5 feet bgs.
						18						
						19						
			WET	0	5 6 7	20			SP			Medium SAND: brown with rusty colors; loose; no odor.
						21						
						22						

WELL/BORING LOCATION MAP	Antea Group		WELL/BORING: MW-2
	INSTALLATION DATE: 03/05/2012	DRILLING METHOD: HSA	
	PROJECT: STCG-4222-0001	SAMPLING METHOD: SPT	
	CLIENT: Lake Chelan Boat Company	BORING DIAMETER: 8.25 inches	
	LOCATION: 1418 West Woodin Avenue	BORING DEPTH: 26.5 feet	
	CITY: Chelan	WELL CASING: SCH 40 PVC 2"	
	STATE: WA	WELL SCREEN: 10 - 25 feet (0.010")	
DRILLER: Cascade Drilling, Inc.		SAND PACK: 8 - 26.5 feet (2X12)	

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	99.22
											SURVEY DATE:	3/27/12
											DTW:	19.38 on 3/21/12
											DESCRIPTION/LOGGED BY: Megan MacDonald	
Concrete						1					Gravel/Dirt Surface	
Bentonite			DRY	0	23 25 50/6"	2			SW		Gravelly SAND: gray; 65% fine to coarse sand; no odor.	
			DRY	7.6	4 4 5	3			SM		Silty SAND: brown; strong odor.	
Sand			DRY	5.2	15 15 18	4			SM		Minimal recovery	
						5					--- Cobbles / Rocks	
						6					--- Cobbles / Rocks	
			WET	0	15 18 18	7			SW		Gravelly SAND: brown; medium to coarse sand; no sheen; no odor.	
						8						
						9						
						10						
						11						
						12						
						13						
						14						
						15						
						16						
						17						
						18						
						19						
						20						
						21						
						22						

WELL/BORING LOCATION MAP	Antea Group		WELL/BORING: MW-2
	INSTALLATION DATE: 03/05/2012		DRILLING METHOD: HSA
	PROJECT: STCG-4222-0001		SAMPLING METHOD: SPT
	CLIENT: Lake Chelan Boat Company		BORING DIAMETER: 8.25 inches
	LOCATION: 1418 West Woodin Avenue		BORING DEPTH: 26.5 feet
	CITY: Chelan		WELL CASING: SCH 40 PVC 2"
	STATE: WA		WELL SCREEN: 10 - 25 feet (0.010")
DRILLER: Cascade Drilling, Inc.		SAND PACK: 8 - 26.5 feet (2X12)	

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	99.22
											SURVEY DATE:	3/27/12
											DTW:	19.38 on 3/21/12
											DESCRIPTION/LOGGED BY: Megan MacDonald	
			WET	0	8 12 14	23			SW	<p>Coarse SAND: brown; grading to medium sand; no sheen on soil; no odor.</p>		
						24						
						25						
						26						
						27						
						28						
						29						
						30						
						31						
						32						
						33						
						34						
						35						
						36						
						37						
						38						
						39						
						40						
						41						
						42						
						43						
						44						

WELL/BORING LOCATION MAP	Antea Group		WELL/BORING: MW-3
	INSTALLATION DATE: 03/06/2012	DRILLING METHOD: HSA	
	PROJECT: STCG-4222-0001	SAMPLING METHOD: SPT	
	CLIENT: Lake Chelan Boat Company	BORING DIAMETER: 8.25 inches	
	LOCATION: 1418 West Woodin Avenue	BORING DEPTH: 26.5 feet	
	CITY: Chelan	WELL CASING: SCH 40 PVC 2"	
	STATE: WA	WELL SCREEN: 10 - 25 feet (0.010")	
DRILLER: Cascade Drilling, Inc.	SAND PACK: 8 - 26.5 feet (2X12)		

WELL/BORING COMPLETION	FIRST ▽	STABILIZED ▼	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	100.00
										SURVEY DATE:	3/27/12
										DTW:	20.10 on 3/21/12
DESCRIPTION/LOGGED BY: Megan MacDonald											
Concrete						1				Gravel/Dirt Surface	
Bentonite						2					
			MST	0.4	7 8 10	5 6		SM		Silty SAND with Gravel: brown; no odor.	
			DRY	0.8	8 10 11	10 11		SW		SAND with Gravel: gray; fine to coarse sand; no odor.	
Sand			MST	0.7	11 13	15		SW		Gravelly SAND: gray; no odor.	
			MST	1.2	13 15 18	16		SW		Gravelly SAND: gray; no odor.	
	▽					18					
		▼	WET	2.0	10 10 12	20 21		SW SP		SAND: gray; coarse sand grades to fine to medium sand; odor.	
						22					

WELL/BORING LOCATION MAP	Antea Group		WELL/BORING: MW-4
	INSTALLATION DATE: 03/06/2012	DRILLING METHOD: HSA	
	PROJECT: STCG-4222-0001	SAMPLING METHOD: SPT	
	CLIENT: Lake Chelan Boat Company	BORING DIAMETER: 8.25 inches	
	LOCATION: 1418 West Woodin Avenue	BORING DEPTH: 29 feet	
	CITY: Chelan	WELL CASING: SCH 40 PVC 2"	
	STATE: WA	WELL SCREEN: 9 - 29 feet (0.010")	
	DRILLER: Cascade Drilling, Inc.	SAND PACK: 7 - 29 feet (2X12)	

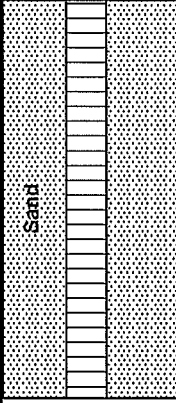



WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	102.25
											SURVEY DATE:	3/27/12
											DTW:	22.44 on 3/21/12
											DESCRIPTION/LOGGED BY: Megan MacDonald	
Concrete						1					Gravel/Dirt Surface	
Bentonite						2						
			MST	0	18	5			SW		Gravelly SAND: brownish gray; fine to coarse sand; no staining; no odor.	
					17	6						
					18	7						
						8						
						9						
						10			SM		No Recovery - 1 rock	
						11						
						12						
						13						
						14						
			MST	0.1	29	15			SW		Gravelly SAND: brown on top; yellowish gray on bottom; 80% fine to coarse sand; 20% fine gravel; no odor.	
					26	16						
			MST	0.3	27	17			SW		Gravelly SAND: yellowish gray; 70% fine to coarse sand; 30% fine gravel; no staining; no odor.	
					35	18						
					40	19						
					50/6"	20						
						21			SW		SAND with Gravel: yellowish gray; no staining; no odor.	
			MST	0	26	22						
					30							
					46							

WELL/BORING LOCATION MAP

Antea Group

WELL/BORING: MW-4

INSTALLATION DATE: 03/06/2012	DRILLING METHOD: HSA
PROJECT: STCG-4222-0001	SAMPLING METHOD: SPT
CLIENT: Lake Chelan Boat Company	BORING DIAMETER: 8.25 inches
LOCATION: 1418 West Woodin Avenue	BORING DEPTH: 29 feet
CITY: Chelan	WELL CASING: SCH 40 PVC 2"
STATE: WA	WELL SCREEN: 9 - 29 feet (0.010")
DRILLER: Cascade Drilling, Inc.	SAND PACK: 7 - 29 feet (2X12)

WELL/BORING COMPLETION	FIRST	STABILIZED	MOISTURE	PID (ppm)	DENSITY BLOWS / 6"	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	USCS SYMBOL	GRAPHIC	CASING ELEVATION	102.25									
										SURVEY DATE:	3/27/12									
										DTW:	22.44 on 3/21/12									
										DESCRIPTION/LOGGED BY: Megan MacDonald										
			WET	0	25 50/6"	23		SP		<p>SAND: brown; fine to medium sand; silt at very bottom; no odor.</p>										
						24						25	26	27	28	29	30	31	32	33
										Refusal at 29' bgs										



Appendix B

Field Data Sheets



anteagroup

FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 3-5-12
ENDING ODOMETER:		PROJECT NUMBER: STC9-4222.0001
FIELD ACTIVITY SUBJECT: Soil Borings/Well Installation		RECORDED BY: Megan
		REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
745	Megan on site.	
800	APS on site (Jeff Braun), H+S tailgate conducted.	
815	Andy w/ Lady of the Lake on site. Check in with her.	
830	Speak w/ Tony of Lady of the Lake.	
	Informed me that a jet fuel tank was located immediately west of former diesel UST. Was removed in 1986. Product lines for jet tank still exist. Tony didn't recall any soil/groundwater impacts associated w/ jet fuel UST removal.	
915	APS off site.	
1015	Cascade on site, H+S tailgate, SOW discussion	
1100	Begin air-knifing boring location south of former diesel UST (B-1).	
1110	B-1 air-knifed to 5' bgs. All sandy fill.	
1120	Begin air-knifing B-2.	
1130	Driller set up on B-1.	
1145	B-2 air-knifed to 5' bgs.	
1200	B-1 drilled to 20' bgs. No obls. had encountered @ 12.5' bgs. Well set @ 20' w/ 15' of 0.010" screen. (MW-1)	
1320	Begin drilling B-2, Begin air-knifing B-3	
1340	B-3 air-knifed to 5'.	
1430	B-2 drilled to 25' w/ 15' of 0.010" screen.	
WEATHER CONDITIONS: Partly Sunny 40-50°		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING: 0		
VISITORS ONSITE: Tony		TELEPHONE CALLS: 815 - Matt, SOW discussion
ANTEA GROUP PERSONNEL ONSITE: Megan		



anteagroup

FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 3-5-12
ENDING ODOMETER:		PROJECT NUMBER: STCQ-4222.0001
FIELD ACTIVITY SUBJECT: Soil Borings/Well Installation		RECORDED BY: Megan
		REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
745	Megan on site.	
800	APS on site (Jeff Braun), H+S tailgate conducted.	
815	Cindy w/ Lady of the Lake on site. Check in with her.	
830	Speak w/ Tony of Lady of the Lake.	
	Informed me that a jet fuel tank was located immediately west of former diesel UST. Was removed in 1988. Product lines for jet tank still exist. Tony didn't recall any soil/groundwater impacts associated w/ jet fuel UST removal.	
915	APS off site.	
1015	Cascade on site. H+S tailgate, SOW discussion	
1100	Begin air-knifing boring location south of former diesel UST (B-1).	
1110	B-1 air-knifed to 5' bgs. All sandy fill.	
1120	Begin air-knifing B-2.	
1130	Driller set up on B-1.	
1145	B-2 air-knifed to 5' bgs.	
1200	B-1 drilled to 20' bgs. No obvs. that encountered @ 12.5' bgs. Well set @ 20' w/ 15' of 0.010" screen. (MW-1)	
1320	Begin drilling B-2, Begin air-knifing B-3	
1340	B-3 air-knifed to 5'.	
1430	B-2 drilled to 25' w/ 15' of 0.010" screen.	
WEATHER CONDITIONS: Partly Sunny 40-50°		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING: Ø		
VISITORS ONSITE: Tony		TELEPHONE CALLS: 815 - Matt, SOW discussion
ANTEA GROUP PERSONNEL ONSITE: Megan		



anteagroup

FIELD ACTIVITY LOG

BEGINNING ODOMETER:		DATE: 3-6-12
ENDING ODOMETER:		PROJECT NUMBER: STG-422
FIELD ACTIVITY SUBJECT: Well Installation		RECORDED BY: Megan
		REVIEWED BY:
TIME	DESCRIPTION OF ACTIVITIES AND EVENTS	SKETCH:
7:45	On site.	
8:00	Cascade on site. H+S tailgate conducted	
8:20	Begin drilling B-3 (MW-3).	
8:30	Scan Snapp w/ Cascade developing MW-1 & MW-2.	
	MW-1 = 18.80 → depth to water prior	
	MW-2 = 18.82 → to development. Produced well went clear.	
9:30	MW-3 set @ 25' w/ 20' of 0.010" screen. Soil w/ odds @ 18'.	
10:30	MW-3 developed. Produced well ran clear.	
11:30	James Groble on site w/ LMR rig. H+S tailgate.	
12:40	Begin drilling B-4 (MW-4).	
	Water not encountered @ ~ 18' bgs like other borings.	
	Drilling deeper. Samples become wet @ 25'.	
	Refusal at 29' - hit bedrock. Set well @ 29' w/ 20' of 0.010" screen.	
15:00	Site cleanup - develop.	
16:00	Off-site.	
19:45	Megan off-clock.	
WEATHER CONDITIONS: Sunny - Windy 40°F		CHANGES IN PLANS, SPECS., NEW ISSUES, FOLLOW UP NEEDED
AMBIENT AIR MONITORING: 0		
VISITORS ONSITE:		TELEPHONE CALLS:
ANTEA GROUP PERSONNEL ONSITE: Megan		

Megan MacDonald

From: wa@occinc.com
Sent: Tuesday, February 28, 2012 9:27 AM
To: Megan MacDonald
Subject: Ticket: 12034645

DO NOT REPLY TO THIS EMAIL

Ticket No: 12034645 2 FULL BUSINESS DAYS
Send To: C_EMAIL Seq No: 98 Map Ref:

Transmit Date: 2/28/12 Time: 9:27 AM Op: orjudy
Original Call Date: 2/28/12 Time: 8:53 AM Op: webusr
Work to Begin Date: 3/02/12 Time: 12:00 AM

State: WA County: CHELAN Place: CHELAN
Address: 1418 Street: W WOODIN AVE
Nearest Intersecting Street: EAST STREET

Twp: 27N Rng: 22E Sect-Qtr: 14
Twp: 27N Rng: 22E Sect-Qtr: 14-SW-SE-NE

Type of Work: MONITORING WELL INSTALLATION/SOIL BORINGS Location of Work: LAKE CHELAN BOAT
COMPANY, NEAR THEIR DRY DOCK. PLEASE MARK
: PUBLIC UTILITIES ENTERING THE PROPERTY. DRILLING TO COMMENCE MARCH 5TH

Remarks:
:

Company	: ANTEA GROUP	Best Time:
Contact Name:	MEGAN MACDONALD	Phone: (425)498-7711
Alt. Contact:	MEGAN - 1ST CALL	Phone: (206)854-0399
Work Being Done For:	COLONY INSURANCE	
Additional Members:		
CHELAN01	CITY OF CHELAN	(509)682-8030
CHEPWS01	CHELAN CTY PUD#1	(509)663-8121
MDM01	BROADSTRIPE	(425)747-4600
VZN02	FRONTIER COMMUNICATIONS NW INC	(425)392-6412
WSDOT15	WA ST DOT-N CENTRAL REG	(509)667-3085

Link To Map for C_EMAIL: <http://wa.itic.occinc.com/UMN8-E2T-FW7-AKW>



Appendix C

Waste Manifest Documentation



GREATER WENATCHEE LANDFILL
191 WEBB RD
EAST WENATCHEE, WA 98802

509-884-2802

INVOICE

RECEIVED BY:

APR 06 2012

Antea Group - Seattle, WA

Customer:
Account Number:
Invoice Date:
Invoice Number:
Due Date:
WM ezPay Account ID:

Page 1 of 5
ANTEA GROUP
740-0508340-1048-5
04/01/2012
0025785-1048-5
Due Upon Receipt
00010-70552-63001

Total Current Charges	Total Amount Due
11,693.75	11,693.75

Account Summary

Description	
Previous Balance	0.00
Total Credits and Adjustments	0.00
Total Payments Received	0.00
Total Current Charges	11,693.75
Total Amount Due	11,693.75
Total Amount Past Due	0.00

Please pay total amount due, Thank you for your business.



Service Period: MARCH 2012

Description	Amount
Landfill	11,693.75
Total Current Charges	11,693.75

Open for service on all holidays except Christmas and New Years Day.

If full payment of the invoiced amount is not received on or before the delinquent date, you will be charged a monthly late fee of 1% of the unpaid amount, with a minimum monthly charge of \$1.00, or such lesser late fee allowed under applicable law, regulation or contract. For each returned check, a fee will be assessed on your next billing equal to the maximum amount permitted by applicable state law.

Watch Waste Management in the series premiere of The Pitch. Premieres Monday April 30, 9/8c only on AMC, the network that brings you Mad Men.

Want to pay this bill on-line? Visit www.wm.com and click on My Account to make a convenient, secure payment.

Current Due	Over 30	Over 60	Over 90	Over 120	Total Due
11,693.75	0.00	0.00	0.00	0.00	11,693.75

Waste Management
GREATER WENATCHEE LANDFILL
191 WEBB RD
EAST WENATCHEE, WA 98802
509-884-2802

Payment Coupon

Please detach and send with checks only (no cash).
Please send all other correspondence to your local WM site.

Your Account Number:
740-0508340-1048-5

Pay your WM bill online at www.wm.com. To pay by phone, call 866-964-2729.

Invoice Date: 04/01/2012
Your Invoice Number: 0025785-1048-5

Due Date: Upon Receipt
Total Due: 11,693.75
Amount Paid:

Learn how we Think Green at www.wm.com/thinkgreen

10487400508340000257850000116937500001169375 7

0039566 01 A1 0.374 **AUTO T6 1 7093 98052-516506 -C01-1 11391191

ANTEA GROUP
4006 148TH AVE NE
REDMOND WA 98052-5165

GREATER WENATCHEE LANDFILL
PO BOX 541065
LOS ANGELES CA 90054-1065

From everyday collection to environmental protection,
Think Green. Think Waste Management.

FOR CHANGE OF ADDRESS OR ANY SERVICE ISSUES CONTACT NUMBER ON PAGE 1

Printed on recycled paper.

0039566-0000001-0059634

000107055263001



NOTICE: By sending your check, you are authorizing Waste Management to use information on your check to make a one-time electronic debit to your account at the financial institution indicated on your check. This electronic debit will be for the amount of your check and may occur as soon as the same day we receive your check. If you have questions regarding this check conversion process only, please call 866-701-0454. For any other unrelated issues, please contact the phone number listed on the front of your invoice.



GREATER WENATCHEE LANDFILL
191 WEBB RD
EAST WENATCHEE, WA 98802

Customer: ANTEA GROUP
Account Number: 740-0508340-1048-5
Invoice Date: 04/01/2012
Invoice Number: 0025785-1048-5
Due Date: Due Upon Receipt
WM ezPay Account ID: 00010-70552-63001

Service Location: 740-508340 Antea Group: 4006 148th Ave NE: Redmond Wa 98052-5165						
Date	Ticket	Description	Quantity	U/M	Rate	Amount
03/22/12	657202	Vehicle#:none Po#:stcg 422 Standard waste approval \$75 Profile # 106474wa Generator lake chelan boat company Ticket Total	1.00	ECH	75.00	75.00 75.00
03/26/12	657326	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	19.11 19.11	TON TON TON	27.00 3.51	515.97 18.57 67.08 601.62
03/26/12	657327	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	22.05 22.05	TON TON TON	27.00 3.51	595.35 21.43 77.40 694.18
03/26/12	657332	Vehicle#:007 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	29.27 29.27	TON TON TON	27.00 3.51	790.29 28.45 102.74 921.48
03/26/12	657336	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	33.13 33.13	TON TON TON	27.00 3.51	894.51 32.20 116.29 1,043.00
03/26/12	657350	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	22.05 22.05	TON TON TON	27.00 3.51	595.35 21.43 77.40 694.18

0039566-0000002-0059633

From everyday collection to environmental protection,
Think Green. Think Waste Management.

FOR CHANGE OF ADDRESS OR ANY SERVICE ISSUES CONTACT NUMBER ON PAGE 1



Service Location: 740-508340 Antea Group, 4006 148th Ave NE, Redmond Wa 98052-5165						
Date	Ticket	Description	Quantity	U/M	Rate	Amount
03/26/12	657357	Vehicle#:32 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	26.20 26.20	TON TON TON	27.00 3.51	707.40 25.47 91.96 824.83
03/26/12	657363	Vehicle#:007 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	30.55 30.55	TON TON TON	27.00 3.51	824.85 29.69 107.23 961.77
03/26/12	657365	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	32.51 32.51	TON TON TON	27.00 3.51	877.77 31.60 114.11 1,023.48
03/27/12	657390	Vehicle#:32 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	24.78 24.78	TON TON TON	27.00 3.51	669.06 24.09 86.98 780.13
03/27/12	657395	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	26.12 26.12	TON TON TON	27.00 3.51	705.24 25.39 91.68 822.31
03/27/12	657400	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa	33.07 33.07	TON TON TON	27.00 3.51	892.89 32.14 116.08





WASTE MANAGEMENT

GREATER WENATCHEE LANDFILL
191 WEBB RD
EAST WENATCHEE, WA 98802

Customer: ANTEA GROUP
Account Number: 740-0508340-1048-5
Invoice Date: 04/01/2012
Invoice Number: 0025785-1048-5
Due Date: Due Upon Receipt
WM ezPay Account ID: 00010-70552-63001

Service Location: 740-508340 Antea Group, 4006 148th Ave NE, Redmond Wa 98052-5165						
Date	Ticket	Description	Quantity	U/M	Rate	Amount
		Generator lake chelan boat company Manifest# 106474wa Ticket Total				1,041.11
03/27/12	657407	Vehicle#:007 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	24.85 24.85	TON TON	27.00 3.51	670.95 24.15 87.22 782.32
03/27/12	657425	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	23.28 23.28	TON TON	27.00 3.51	628.56 22.63 81.71 732.90
03/27/12	657444	Vehicle#:0 Po#:stcg 422 Cont. Soil - petroleum, pmt is rgc Refuse tax Env fee \$3.51/Tn Profile # 106474wa Generator lake chelan boat company Manifest# 106474wa Ticket Total	22.09 22.09	TON TON	27.00 3.51	596.43 21.47 77.54 695.44
Total charges for service location						11,693.75
Total Current Charges						11,693.75

VENDOR CODE _____

PROJ / PHASE STCG 4222 MM.0001

GL CODE _____

APPROVED BY MATT MILLER

SIGNATURE

ENTERED BY Tammy W.

BST VOUCHER# _____ DATE _____

APPROVAL E-MAIL ATTACHED

Manager: _____

Date: 4/9/12

0039566-00000003-0059636



Appendix D

Analytical Laboratory Reports and Chain-of-Custody Documentation



March 9, 2012

Mr. Matt Miller
Antea Group
4006 - 148th Ave NE
Redmond, WA 98052

Dear Mr. Miller,

On March 7th, 13 samples were received by our laboratory and assigned our laboratory project number 1203035. The project was identified as your STCG-4222.0001. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-4222.0001
 CLIENT SAMPLE ID: B-1-11

DATE: 3/9/2012
 ALS JOB#: 1203035
 ALS SAMPLE#: -02
 DATE RECEIVED: 3/7/2012
 COLLECTION DATE: 3/5/2012 11:50:00 AM
 WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	ANALYSIS
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/07/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/07/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
TFT	EPA-8021	78.2	03/07/2012	DLC
C25	NWTPH-DX	65.1	03/07/2012	EBS
Terphenyl-d14	EPA-8270 SIM	98.5	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

DATE: 3/9/2012

ALS JOB#: 1203035

ALS SAMPLE#: -03

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-4222.0001
 CLIENT SAMPLE ID: B-1-16

DATE RECEIVED: 3/7/2012

COLLECTION DATE: 3/5/2012 12:00:00 PM

WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS ANALYSIS	
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/07/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/07/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS ANALYSIS	
			DATE	BY
TFT	EPA-8021	66.5	03/07/2012	DLC
C25	NWTPH-DX	80.7	03/07/2012	EBS
Terphenyl-d14	EPA-8270 SIM	98.6	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-4222.0001
 CLIENT SAMPLE ID: B-2-11

DATE: 3/9/2012
 ALS JOB#: 1203035
 ALS SAMPLE#: -05
 DATE RECEIVED: 3/7/2012
 COLLECTION DATE: 3/5/2012 1:40:00 PM
 WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	ANALYSIS
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/07/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/07/2012	DLC
TPH-Diesel Range	NWTPH-DX	61	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
>C8-C10 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C10-C12 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C12-C16 Aliphatics	NWEPH	5.4	5.0	1	MG/KG	03/08/2012	EBS
>C16-C21 Aliphatics	NWEPH	26	5.0	1	MG/KG	03/08/2012	EBS
>C21-C34 Aliphatics	NWEPH	30	5.0	1	MG/KG	03/08/2012	EBS
>C8-C10 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C10-C12 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C12-C16 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C16-C21 Aromatics	NWEPH	16	5.0	1	MG/KG	03/08/2012	EBS
>C21-C34 Aromatics	NWEPH	21	5.0	1	MG/KG	03/08/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
TFT	EPA-8021	71.8	03/07/2012	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 3/9/2012
4006 - 148th Ave NE ALS JOB#: 1203035
Redmond, WA 98052 ALS SAMPLE#: -05
CLIENT CONTACT: Matt Miller DATE RECEIVED: 3/7/2012
CLIENT PROJECT: STCG-4222.0001 COLLECTION DATE: 3/5/2012 1:40:00 PM
CLIENT SAMPLE ID B-2-11 WDOE ACCREDITATION: C601

DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	
			DATE	BY
C25	NWTPH-DX	82.7	03/07/2012	EBS
C25	NWEPH	66.0	03/08/2012	EBS
p-Terphenyl	NWEPH	90.0	03/08/2012	EBS
Terphenyl-d14	EPA-8270 SIM	83.0	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel.



CERTIFICATE OF ANALYSIS

CLIENT:	Antea Group	DATE:	3/9/2012
	4006 - 148th Ave NE	ALS JOB#:	1203035
	Redmond, WA 98052	ALS SAMPLE#:	-06
CLIENT CONTACT:	Matt Miller	DATE RECEIVED:	3/7/2012
CLIENT PROJECT:	STCG-4222.0001	COLLECTION DATE:	3/5/2012 1:50:00 PM
CLIENT SAMPLE ID	B-2-16	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/07/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/07/2012	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	74.4	03/07/2012	DLC

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Antea Group 4006 - 148th Ave NE Redmond, WA 98052	DATE:	3/9/2012
CLIENT CONTACT:	Matt Miller	ALS JOB#:	1203035
CLIENT PROJECT:	STCG-4222.0001	ALS SAMPLE#:	-08
CLIENT SAMPLE ID	B-3-11	DATE RECEIVED:	3/7/2012
		COLLECTION DATE:	3/6/2012 8:50:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/07/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/07/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	
			DATE	BY
TFT	EPA-8021	69.2	03/07/2012	DLC
C25	NWTPH-DX	74.0	03/07/2012	EBS
Terphenyl-d14	EPA-8270 SIM	68.1	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Antea Group	DATE:	3/9/2012
	4006 - 148th Ave NE	ALS JOB#:	1203035
	Redmond, WA 98052	ALS SAMPLE#:	-09
CLIENT CONTACT:	Matt Miller	DATE RECEIVED:	3/7/2012
CLIENT PROJECT:	STCG-4222.0001	COLLECTION DATE:	3/6/2012 9:00:00 AM
CLIENT SAMPLE ID	B-3-16	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	ANALYSIS
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/08/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/08/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
TFT	EPA-8021	53.0 GS1	03/08/2012	DLC
C25	NWTPH-DX	77.4	03/07/2012	EBS
Terphenyl-d14	EPA-8270 SIM	71.1	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
 GS1 - Surrogate outside of control limits due to matrix effect.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
4006 - 148th Ave NE
Redmond, WA 98052

DATE: 3/9/2012

ALS JOB#: 1203035

ALS SAMPLE#: -10

CLIENT CONTACT: Matt Miller
CLIENT PROJECT: STCG-4222.0001
CLIENT SAMPLE ID: B-3-18

DATE RECEIVED: 3/7/2012
COLLECTION DATE: 3/6/2012 9:10:00 AM
WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS ANALYSIS	
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/08/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/08/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
>C8-C10 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C10-C12 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C12-C16 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C16-C21 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C21-C34 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C8-C10 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C10-C12 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C12-C16 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C16-C21 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C21-C34 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS ANALYSIS	
			DATE	BY
TFT	EPA-8021	70.0	03/08/2012	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 3/9/2012
4006 - 148th Ave NE ALS JOB#: 1203035
Redmond, WA 98052 ALS SAMPLE#: -10
CLIENT CONTACT: Matt Miller DATE RECEIVED: 3/7/2012
CLIENT PROJECT: STCG-4222.0001 COLLECTION DATE: 3/6/2012 9:10:00 AM
CLIENT SAMPLE ID B-3-18 WDOE ACCREDITATION: C601

DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	
			DATE	BY
C25	NWTPH-DX	85.7	03/07/2012	EBS
C25	NWEPH	63.0	03/08/2012	EBS
p-Terphenyl	NWEPH	67.0	03/08/2012	EBS
Terphenyl-d14	EPA-8270 SIM	69.5	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
4006 - 148th Ave NE
Redmond, WA 98052

DATE: 3/9/2012

ALS JOB#: 1203035

ALS SAMPLE#: -12

CLIENT CONTACT: Matt Miller
CLIENT PROJECT: STCG-4222.0001

DATE RECEIVED: 3/7/2012

COLLECTION DATE: 3/6/2012 2:00:00 PM

CLIENT SAMPLE ID B-4-16

WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS ANALYSIS	
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/08/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/08/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
>C8-C10 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C10-C12 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C12-C16 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C16-C21 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C21-C34 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C8-C10 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C10-C12 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C12-C16 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C16-C21 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
>C21-C34 Aromatics	NWEPH	U	5.0	1	MG/KG	03/08/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS ANALYSIS	
			DATE	BY
TFT	EPA-8021	66.4	03/08/2012	DLC



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 3/9/2012
4006 - 148th Ave NE ALS JOB#: 1203035
Redmond, WA 98052 ALS SAMPLE#: -12
CLIENT CONTACT: Matt Miller DATE RECEIVED: 3/7/2012
CLIENT PROJECT: STCG-4222.0001 COLLECTION DATE: 3/6/2012 2:00:00 PM
CLIENT SAMPLE ID B-4-16 WDOE ACCREDITATION: C601

DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
C25	NWTPH-DX	79.9	03/07/2012	EBS
C25	NWEPH	64.0	03/08/2012	EBS
p-Terphenyl	NWEPH	82.0	03/08/2012	EBS
Terphenyl-d14	EPA-8270 SIM	90.6	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Antea Group	DATE:	3/9/2012
	4006 - 148th Ave NE	ALS JOB#:	1203035
	Redmond, WA 98052	ALS SAMPLE#:	-13
CLIENT CONTACT:	Matt Miller	DATE RECEIVED:	3/7/2012
CLIENT PROJECT:	STCG-4222.0001	COLLECTION DATE:	3/6/2012 2:10:00 PM
CLIENT SAMPLE ID	B-4-18	WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	ANALYSIS
						DATE	BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/08/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/08/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/08/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Fluoranthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/08/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
TFT	EPA-8021	57.4 GS1	03/08/2012	DLC
C25	NWTPH-DX	97.7	03/07/2012	EBS
Terphenyl-d14	EPA-8270 SIM	87.9	03/08/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
 GS1 - Surrogate outside of control limits due to matrix effect.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 3/9/2012
 4006 - 148th Ave NE ALS SDG#: 1203035
 Redmond, WA 98052 WDOE ACCREDITATION: C601

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-4222.0001

LABORATORY BLANK RESULTS

MB-030712S2 - Batch 2567 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS		
					UNITS	DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	03/07/2012	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/07/2012	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/07/2012	DLC

MB-030712S2 - Batch 2565 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS		
					UNITS	DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	03/07/2012	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	03/07/2012	EBS

MBLK-362012 - Batch R76457 - Soil by NWEPH

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS		
					UNITS	DATE	ANALYSIS BY
>C8-C10 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C10-C12 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C12-C16 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C16-C21 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C21-C34 Aliphatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C8-C10 Aromatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C10-C12 Aromatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C12-C16 Aromatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C16-C21 Aromatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS
>C21-C34 Aromatics	NWEPH	U	5.0	1	MG/KG	03/06/2012	EBS

MB-030612S - Batch 2560 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS		
					UNITS	DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 3/9/2012
4006 - 148th Ave NE ALS SDG#: 1203035
Redmond, WA 98052 WDOE ACCREDITATION: C601
CLIENT CONTACT: Matt Miller
CLIENT PROJECT: STCG-4222.0001

LABORATORY BLANK RESULTS

MB-030612S - Batch 2560 - Soil by EPA-8270 SIM

Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	MG/KG	03/06/2012	LAP



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-4222.0001

DATE: 3/9/2012
 ALS SDG#: 1203035
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2567 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	98.7			03/07/2012	DLC
Benzene - BSD	EPA-8021	99.8	1		03/07/2012	DLC
Toluene - BS	EPA-8021	96.8			03/07/2012	DLC
Toluene - BSD	EPA-8021	98.1	1		03/07/2012	DLC
Ethylbenzene - BS	EPA-8021	92.5			03/07/2012	DLC
Ethylbenzene - BSD	EPA-8021	93.5	1		03/07/2012	DLC
Xylenes - BS	EPA-8021	96.0			03/07/2012	DLC
Xylenes - BSD	EPA-8021	96.9	1		03/07/2012	DLC

ALS Test Batch ID: 2565 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	96.3			03/07/2012	EBS
TPH-Diesel Range - BSD	NWTPH-DX	86.6	11		03/07/2012	EBS

ALS Test Batch ID: R76457 - Soil by NWEPH

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
>C8-C10 Aliphatics - BS	NWEPH	78.0			03/06/2012	EBS
>C8-C10 Aliphatics - BSD	NWEPH	88.0	12		03/06/2012	EBS
>C10-C12 Aliphatics - BS	NWEPH	86.0			03/06/2012	EBS
>C10-C12 Aliphatics - BSD	NWEPH	93.0	8		03/06/2012	EBS
>C12-C16 Aliphatics - BS	NWEPH	93.0			03/06/2012	EBS
>C12-C16 Aliphatics - BSD	NWEPH	94.0	1		03/06/2012	EBS
>C16-C21 Aliphatics - BS	NWEPH	95.0			03/06/2012	EBS
>C16-C21 Aliphatics - BSD	NWEPH	95.0	0		03/06/2012	EBS
>C21-C34 Aliphatics - BS	NWEPH	97.0			03/06/2012	EBS
>C21-C34 Aliphatics - BSD	NWEPH	97.0	0		03/06/2012	EBS
>C8-C10 Aromatics - BS	NWEPH	82.0			03/06/2012	EBS
>C8-C10 Aromatics - BSD	NWEPH	96.0	16		03/06/2012	EBS
>C10-C12 Aromatics - BS	NWEPH	84.0			03/06/2012	EBS
>C10-C12 Aromatics - BSD	NWEPH	99.0	16		03/06/2012	EBS
>C12-C16 Aromatics - BS	NWEPH	89.0			03/06/2012	EBS
>C12-C16 Aromatics - BSD	NWEPH	99.0	11		03/06/2012	EBS
>C16-C21 Aromatics - BS	NWEPH	92.0			03/06/2012	EBS
>C16-C21 Aromatics - BSD	NWEPH	100	8		03/06/2012	EBS
>C21-C34 Aromatics - BS	NWEPH	88.0			03/06/2012	EBS
>C21-C34 Aromatics - BSD	NWEPH	96.0	9		03/06/2012	EBS



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
4006 - 148th Ave NE
Redmond, WA 98052
CLIENT CONTACT: Matt Miller
CLIENT PROJECT: STCG-4222.0001

DATE: 3/9/2012
ALS SDG#: 1203035
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2560 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Naphthalene - BS	EPA-8270 SIM	128			03/07/2012	LAP
Naphthalene - BSD	EPA-8270 SIM	121	6		03/06/2012	LAP
Acenaphthene - BS	EPA-8270 SIM	126			03/07/2012	LAP
Acenaphthene - BSD	EPA-8270 SIM	117	7		03/06/2012	LAP
Pyrene - BS	EPA-8270 SIM	151			03/07/2012	LAP
Pyrene - BSD	EPA-8270 SIM	134	12		03/06/2012	LAP
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	95.1			03/07/2012	LAP
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	112	16		03/06/2012	LAP

APPROVED BY

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 (425) 356-2626 Fax
 http://www.alsglobal.com

**Chair of Custody/
 Laboratory Analysis Request**

Date 3-7-12 Page 1 of 2

ALS Job# 1203035 (Labor Only)

PROJECT ID:	STCG-4222.0001	MM																					
REPORT TO COMPANY:	Antea Group																						
PROJECT MANAGER:	Matt Miller																						
ADDRESS:	4006 148 th Ave NE Redmond, WA 98052																						
PHONE:	425-498-7722	FAX: 425-269-1892																					
P.O. NUMBER:	208188	EMAIL: <u>matt.miller@antegrp.com</u>																					
INVOICE TO COMPANY:	Colony Insurance																						
ATTENTION:	Carol Lybecker																						
ADDRESS:																							
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Pri Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?	
*B-1-6	3-5-12	11:40	Soil	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
B-1-11		11:50		2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
B-1-16		12:00		3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
*B-2-6		13:30		4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
B-2-11		13:40		5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
B-2-16		13:50		6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
*B-3-6	3-6-12	8:40		7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
B-3-11		8:50		8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
B-3-16		9:00		9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
B-3-18		9:10		10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

SPECIAL INSTRUCTIONS: Please hold B-1-6, B-2-6, B-3-6, - B-4-6 for possible future analysis.

LABORATORY COPY

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Matt Miller - Antea - 3-7-12

Received By: [Signature] ALS 3-7-12 1:35

2. Relinquished By: _____

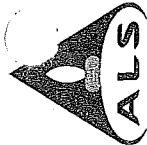
Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____

Organic, Metals & Inorganic Analysis
 Standard: 10 5 3 1 SAME DAY

Fuels & Hydrocarbon Analysis
 Standard: 5 3 1 SAME DAY

* Turnaround request less than standard may incur Rush Charges



ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
(425) 356-2626 Fax
http://www.alsglobal.com

Chair of Custody/ Laboratory Analysis Request

ALS Job# (Labor Use Only)

120303S

Date 3-7-12 Page 2 of 2

ANALYSIS REQUESTED				OTHER (Specify)																	
PROJECT ID:	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	PHONE:	P.O. NUMBER:	INVOICE TO COMPANY:	ATTENTION:	ADDRESS:	MTBE by EPA-8021 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260 <input type="checkbox"/>	Volatile Organic Compounds by EPA 8260 <input type="checkbox"/>	EDB / EDC by EPA 8260 SIM (water) <input type="checkbox"/>	EDB / EDC by EPA 8260 (soil) <input type="checkbox"/>	Semivolatile Organic Compounds by EPA 8270 <input type="checkbox"/>	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082 <input type="checkbox"/>	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Ph Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify) <input type="checkbox"/>	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
STCG-4222-0001	Antea Group	Matt Miller	4006 148 th Ave NE Redmond, WA 98052	425-498-7122	208188	Cosloy Insurance	Caroi Lybeer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	
									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

SPECIAL INSTRUCTIONS: Please hold B-4-6 for possible future analysis

SIGNATURES (Name, Company, Date, Time):
 Relinquished By: Megan MacFarland - Antea - 3-7-12
 Received By: [Signature] ALS 3-7-12 1:35
 Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____

Organic, Metals & Inorganic Analysis: 10 5 3 1 SAME DAY
 Fuels & Hydrocarbon Analysis: 5 3 1 SAME DAY

* Turnaround request less than standard may incur Rush Charges



March 29, 2012

Mr. Matt Miller
Antea Group
4006 - 148th Ave NE
Redmond, WA 98052

Dear Mr. Miller,

On March 22nd, 4 samples were received by our laboratory and assigned our laboratory project number 1203120. The project was identified as your STCG-422. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

Page 1

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626

ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-422
 CLIENT SAMPLE ID: MW-1

DATE: 3/29/2012
 ALS JOB#: 1203120
 ALS SAMPLE#: -01
 DATE RECEIVED: 3/22/2012
 COLLECTION DATE: 3/21/2012 2:00:00 PM
 WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/22/2012	DLC
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/26/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/26/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.040	0.020	1	UG/L	03/29/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.026	0.020	1	UG/L	03/29/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.086	0.020	1	UG/L	03/29/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	110	03/22/2012	DLC
C25	NWTPH-DX	116	03/26/2012	EBS
Terphenyl-d14	EPA-8270 SIM	54.5	03/29/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

DATE: 3/29/2012

ALS JOB#: 1203120

ALS SAMPLE#: -02

CLIENT CONTACT: Matt Miller

DATE RECEIVED: 3/22/2012

CLIENT PROJECT: STCG-422

COLLECTION DATE: 3/21/2012 1:40:00 PM

CLIENT SAMPLE ID MW-2

WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	
						DATE	BY
Benzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/22/2012	DLC
TPH-Diesel Range	NWTPH-DX	260	130	1	UG/L	03/26/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/26/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	0.043	0.020	1	UG/L	03/29/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluoranthrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluoranthene	EPA-8270 SIM	0.030	0.020	1	UG/L	03/29/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.052	0.020	1	UG/L	03/29/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.034	0.020	1	UG/L	03/29/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.094	0.020	1	UG/L	03/29/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	
			DATE	BY
TFT	EPA-8021	96.5	03/22/2012	DLC
C25	NWTPH-DX	115	03/26/2012	EBS
Terphenyl-d14	EPA-8270 SIM	61.5	03/29/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains weathered diesel.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

DATE: 3/29/2012
 ALS JOB#: 1203120
 ALS SAMPLE#: -03
 DATE RECEIVED: 3/22/2012
 COLLECTION DATE: 3/21/2012 2:50:00 PM
 WDOE ACCREDITATION: C601

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-422
 CLIENT SAMPLE ID: MW-3

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	ANALYSIS
						DATE	BY
Benzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Ethylbenzene	EPA-8021	9.3	1.0	1	UG/L	03/22/2012	DLC
Xylenes	EPA-8021	44	3.0	1	UG/L	03/22/2012	DLC
TPH-Diesel Range	NWTPH-DX	1300	130	1	UG/L	03/26/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/26/2012	EBS
Naphthalene	EPA-8270 SIM	14	0.020	1	UG/L	03/29/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	0.16	0.020	1	UG/L	03/29/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	7.7	0.020	1	UG/L	03/29/2012	LAP
Acenaphthylene	EPA-8270 SIM	0.089	0.020	1	UG/L	03/29/2012	LAP
Acenaphthene	EPA-8270 SIM	0.75	0.020	1	UG/L	03/29/2012	LAP
Fluorene	EPA-8270 SIM	1.8	0.020	1	UG/L	03/29/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.059	0.020	1	UG/L	03/29/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.039	0.020	1	UG/L	03/29/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.11	0.020	1	UG/L	03/29/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
TFT	EPA-8021	98.6	03/22/2012	DLC
C25	NWTPH-DX	93.2	03/26/2012	EBS
Terphenyl-d14	EPA-8270 SIM	58.3	03/29/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains weathered diesel.
 Diesel range product results biased high due to gasoline range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-422
 CLIENT SAMPLE ID: MW-4

DATE: 3/29/2012
 ALS JOB#: 1203120
 ALS SAMPLE#: -04
 DATE RECEIVED: 3/22/2012
 COLLECTION DATE: 3/21/2012 2:25:00 PM
 WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS ANALYSIS	
						DATE	BY
Benzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/22/2012	DLC
TPH-Diesel Range	NWTPH-DX	320	130	1	UG/L	03/26/2012	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/26/2012	EBS
Naphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	0.037	0.020	1	UG/L	03/29/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluoranthene	EPA-8270 SIM	0.096	0.020	1	UG/L	03/29/2012	LAP
Pyrene	EPA-8270 SIM	0.046	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	0.023	0.020	1	UG/L	03/29/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.050	0.020	1	UG/L	03/29/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.035	0.020	1	UG/L	03/29/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.083	0.020	1	UG/L	03/29/2012	LAP

SURROGATE	METHOD	%REC	ANALYSIS ANALYSIS	
			DATE	BY
TFT	EPA-8021	104	03/22/2012	DLC
C25	NWTPH-DX	93.4	03/26/2012	EBS
Terphenyl-d14	EPA-8270 SIM	59.0	03/29/2012	LAP

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains weathered diesel.



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group DATE: 3/29/2012
 4006 - 148th Ave NE ALS SDG#: 1203120
 Redmond, WA 98052 WDOE ACCREDITATION: C601

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-422

LABORATORY BLANK RESULTS

MB-032212W - Batch 2608 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/22/2012	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	03/22/2012	DLC

MB-032012W - Batch 2605 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	03/20/2012	DLC
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	03/20/2012	DLC

MB-032812W - Batch 2622 - Water by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
2-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
1-Methylnaphthalene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Acenaphthylene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Acenaphthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluorene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Phenanthrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Chrysene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[A]Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	0.020	1	UG/L	03/29/2012	LAP



CERTIFICATE OF ANALYSIS

CLIENT: Antea Group
 4006 - 148th Ave NE
 Redmond, WA 98052

CLIENT CONTACT: Matt Miller
 CLIENT PROJECT: STCG-422

DATE: 3/29/2012
 ALS SDG#: 1203120
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 2608 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	98.8			03/22/2012	DLC
Benzene - BSD	EPA-8021	104	5		03/22/2012	DLC
Toluene - BS	EPA-8021	94.9			03/22/2012	DLC
Toluene - BSD	EPA-8021	99.8	5		03/22/2012	DLC
Ethylbenzene - BS	EPA-8021	92.2			03/22/2012	DLC
Ethylbenzene - BSD	EPA-8021	97.3	5		03/22/2012	DLC
Xylenes - BS	EPA-8021	92.1			03/22/2012	DLC
Xylenes - BSD	EPA-8021	97.2	5		03/22/2012	DLC

ALS Test Batch ID: 2605 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	69.9			03/20/2012	DLC
TPH-Diesel Range - BSD	NWTPH-DX	74.7	0		03/20/2012	DLC

ALS Test Batch ID: 2622 - Water by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Naphthalene - BS	EPA-8270 SIM	58.8			03/29/2012	LAP
Naphthalene - BSD	EPA-8270 SIM	55.4	6		03/29/2012	LAP
Acenaphthene - BS	EPA-8270 SIM	76.2			03/29/2012	LAP
Acenaphthene - BSD	EPA-8270 SIM	72.7	5		03/29/2012	LAP
Pyrene - BS	EPA-8270 SIM	81.1			03/29/2012	LAP
Pyrene - BSD	EPA-8270 SIM	77.1	5		03/29/2012	LAP
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	84.2			03/29/2012	LAP
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	79.1	6		03/29/2012	LAP

APPROVED BY

Laboratory Director

