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April 28, 2011

Ms. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Quarterly Summary Report – First Quarter 2011
Site: 76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219

Dear Ms. Jakub;

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call:

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Sincerely,

PACIFIC CONVENIENCE & FUEL

LIZ BERMUDEZ
Senior Paralegal

Attachment

Quarterly Summary Report, First Quarter 2011

*76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California*

*Alameda County Health Care Services
Agency Fuel leak Case No. RO0000219
Regional Water Quality Control Board
San Francisco Bay No. 01-1601*

GeoTracker Global ID No. T0600101476

Antea Group Project No. I42705191

April 28, 2011

Prepared for:
Ms. Barbara Jakub
Hazardous Materials Specialist
Alameda County Health Care
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1.0 INTRODUCTION

Antea™ Group (formerly Delta Consultants) is pleased to submit this *Quarterly Summary Report, First Quarter 2011*, for the referenced site in Oakland, CA (**Figure 1**). The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, California. Station facilities include three underground storage tanks (USTs), two dispenser islands, a station building, and a carwash. A total of ten groundwater monitoring wells are located at or near the site (**Figures 1 and 2**). Please refer to **Appendix A** for additional site information and for the history of environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring and sampling event conducted on March 14, 2011. Included herein are site figures and groundwater contaminant data tables and a discussion of trends. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Work Performed [First Quarter 2011]

1. Antea Group submitted the *Quarterly Summary Report, Fourth Quarter 2010*, dated January 31, 2011 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group conducted a batch extraction event using monitoring wells MW-6 and MW-12 on March 7 and 8, 2011.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the first quarter 2011 groundwater monitoring and sampling event on March 14, 2011.

1.2 Work Proposed [Second Quarter 2011]

1. Antea Group will submit the *Quarterly Summary Report, First Quarter 2011* (contained herein) to the ACHCSA.
2. Antea Group will conduct a batch extraction event using monitoring wells MW-6 and MW-12 before the next monitoring and sampling event.
3. Blaine tech will conduct the second quarter 2011 monitoring and sampling event.
4. Antea Group will conduct the site investigation activities proposed in the work plan submitted on December 20, 2010.

2.0 CURRENT PROJECT STATUS

Current phase of project:	Quarterly Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency Case No. RO0000219
Secondary agency(s):	San Francisco Bay Regional Water Quality Control Board
Monitoring well gauging schedule:	Quarterly: MW-3, MW-6 through MW-12, MW-12A, and MW-13
Monitoring well sampling schedule:	Quarterly: MW-6, MW-10, MW-11, MW-12, MW-12A, and MW-13 Semi-Annual: MW-3 and MW-7 through MW-9
Total number of monitoring/remediation wells (Table 1):	Ten (MW-3, MW-6 through MW-12, MW-12A, and MW-13).
Range of well depths (total depth below ground surface, bgs) (Table 1):	Wells are set from 13 feet to 34 feet bgs.
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	Former monitoring wells MW-1 and MW-2 and current monitoring well MW-6
Historical depth to water range, in feet below top of casing (BTOC):	Min: 0.07 (MW-9, Q1 2005) Max: 8.42 (MW-6, Q4 2010)
Historical groundwater elevation range (ft) for wells MW-1 through MW-3:	Min: 2.77 (MW-3, Q3 1994) Max: 9.17 (MW-9, Q4 2010)
Local receptors:	See Attachment A
Current remediation technique	Batch Extraction

2.1 Regulatory Correspondence

No regulatory correspondence was received from the ACHCSA during the first quarter 2011.

Antea Group submitted a 60-day notification letter to the ACHCSA on February 23, 2011.

2.2 Remedial Activities

Batch extraction using monitoring/extraction wells MW-6 and MW-12 was conducted on March 7 and 8, 2011. Approximately 870 gallons of groundwater were purged from the on-site wells during the extraction event and transported off-site for disposal at the approved disposal facility.

2.3 Groundwater Monitoring

For the first quarter 2011 groundwater monitoring and sampling event, ten wells were gauged and seven wells were purged and sampled by Blaine Tech per standard sampling protocol (**Appendix B**). Copies of Blaine Tech's field data sheets are presented as **Appendix C**. The recent gauging and sampling data are summarized below and in **Tables 2, 3** and **3a**.

Well gauging and sampling date:	March 14, 2011
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13
Wells sampled:	MW-6, MW-9 through MW-12, MW-12A and MW-13
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (Attachment C):	Temperature, pH, Conductivity, Oxidation-reduction potential (ORP), Turbidity, Dissolved Oxygen (DO)
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 1.89 (MW-11) Max: 4.32 (MW-13)
Current groundwater elevation range (ft):	Min: 6.76 (MW-13) Max: 8.70 (MW-9)
Change in water depths from previous event (average change for all gauged wells):	0.51 foot increase
Groundwater flow direction and gradient in feet per foot (ft/ft):	Southeast at 0.02 ft/ft

2.3.1 Groundwater Flow Gradient and Directional Trends

With the recent installation of four additional wells, this site now has eight on-site and two off-site monitoring wells. Monitoring wells MW-3, MW-7, MW-8, and MW-9 are sampled during the 2nd and 4th quarters while monitoring wells MW-6, MW-10, MW-11, MW-12, MW-12a, and MW-13 are sampled quarterly. Monitoring well MW-9 was sampled during the first quarter 2011 for the purpose of collecting additional analytical data from this up-gradient well. The first quarter 2011 groundwater monitoring and sampling event was performed by Blaine Tech on March 14, 2011. The average groundwater elevation increased 0.51 feet from the December 2010 event. Depth to groundwater in the site monitoring wells ranged from 1.89 feet (MW-11) to 4.32 feet (MW-13) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.02 ft/ft during the current event which is consistent with the historical groundwater flow direction and gradient (Table 4).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the first quarter 2011 were submitted with chain-of-custody documentation to Pace Analytical Services, Inc. (Pace), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 01153CA). The complete analytical report and Antea Group's laboratory data validation checklist is presented as Appendix D. Groundwater samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons as gasoline by CA LUFT Method;
- Diesel Range Organics (DRO) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015B;
- Benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tert-butyl alcohol (TBA), acetone, and ethanol by EPA Method 8260;

- Methane by RSK 175 AIR Headspace;
- Total iron, dissolved antimony, dissolved arsenic, dissolved barium, dissolved beryllium, dissolved cadmium, dissolved cobalt, dissolved lead, dissolved manganese, dissolved molybdenum, dissolved nickel, dissolved selenium, dissolved silver, dissolved thallium, dissolved vanadium, and dissolved zinc by EPA Method 6010;
- Dissolved Mercury by EPA Method 7470;
- Ferric and ferrous iron by Standard Method (SM) 3500-Fe B#4;
- Biological Oxygen Demand (BOD) 5 day by SM 5210B;
- Chloride and sulfate by EPA Method 300.0;
- Nitrogen, nitrate, nitrogen, NO₂ plus NO₃ by EPA Method 353.2;
- Chemical Oxygen Demand (COD) by EPA Method 410.4;
- Nitrite by SM 4500-NO₂ B.

Groundwater analytical results are presented in **Tables 2** (current) and **Tables 3 and 3a** (historical). The following ranges of contaminant concentrations were reported in the specified site wells' groundwater samples collected on March 14, 2011. Only the reported contaminants are listed in the table below.

Constituents	Number of Reported Samples Above LRL of the Samples Collected	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
TPHg	3 of 7	127 (MW-13)	44,600 (MW-6)
DRO	6 of 7	61.5 (MW-12A)	93,000 (MW-6)
Benzene	3 of 7	1.1 (MW-10)	912 (MW-6)
Toluene	2 of 7	80.9 (MW-12)	338 (MW-6)
Ethylbenzene	2 of 7	49.1 (MW-12)	728 (MW-6)
Total Xylenes	2 of 7	243 (MW-12)	3,670 (MW-6)
MTBE	4 of 7	16.3 (MW-6)	1,020 (MW-12)
TBA	3 of 7	69.6 (MW-12)	134 (MW-6)

Explanations:

µg/L = Micrograms per liter

LRL = Laboratory reporting limit

2.2.3 Groundwater Contaminant Trends

During the first quarter 2011, analytical results from the sample collected from monitoring well MW-6 indicated that TPHg decreased in concentration while MTBE, benzene, and DRO concentrations increased. Analytical results from the groundwater sample collected from monitoring well MW-10 indicated an increase in DRO concentration

and the benzene concentration remained stable. TPHg and MTBE concentrations in monitoring well MW-10 remained below the laboratory's indicated reporting limits, as shown in **Table 3**. Analytical results from the groundwater sample collected from monitoring well MW-11 indicated a decrease in MTBE and an increase in DRO concentrations. Analytical results from the groundwater sample collected from monitoring well MW-12A indicated a decrease in MTBE and DRO concentrations. Analytical results from the groundwater samples collected from monitoring wells MW-12 and MW-13 indicated a decrease in TPHg and MTBE concentrations. Groundwater samples collected from monitoring well MW-12 also indicated a decrease in DRO concentration and monitoring well MW-13 an increase in DRO concentration. Isoconcentration maps for TPHg, benzene, MTBE, and DRO are presented on **Figures 4 through 7** and historical flow directions are presented on **Figure 8**.

2.3.4 Waste Disposal Summary

Approximately 117 gallons of waste water was generated during well purging/sampling and equipment cleaning during the first quarter event. The waste water was transported to Blaine Tech's bulk facility in San Jose, California. After the batching process, the wastewater was transported to Seaport Environmental in Redwood City, California for disposal. A copy of the waste manifest is presented as **Appendix E**.

2.3.5 Quality Assurance / Quality Control

Antea Group's QA/QC measures included use of a field duplicate and a detailed QA/QC data validation check on the Pace Laboratory analytical results for the March 2011 sampling event. Antea Group's laboratory data validation checklist and the Pace laboratory report are presented as **Appendix D**.

Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	Yes – seven qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

*1n – Methane has been reported from data that was analyzed within method required holding times. The final CCV was not injected on this day due to instrument malfunction. The sample was re-analyzed outside of hold, with compliant QC, for confirmation.

*2n – The TPHg result for the sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.

*B1 – Less than 1.0 mg/L DO remained for all dilutions set. The reported value is an estimated greater than value and is calculated for the dilution using the least amount of sample.

*E – Analyte concentration exceeded the calibration range. The reported result is estimated.

*M1 – Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample recovery.

*S4 – Surrogate recovery not evaluated against control limits due to sample dilution.

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

Based on a review of the laboratory's analytical report, including their QA/QC procedures and those implemented by Antea Group, we conclude that the laboratory data obtained during this groundwater sampling event are valid for their intended purpose.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group recommends continued quarterly monitoring of groundwater, as well as continuing quarterly batch extraction events using monitoring wells MW-6 and MW-12. In addition, Antea Group recommends that the remaining monitoring wells be sampled on a semi-annual basis only, during the second and fourth quarters. Further recommendations will be made upon review of the results of the upcoming site investigation.

4.0 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. For any reports cited that were not generated by Delta or Antea Group, the data from those reports is used "as is" and is assumed to be accurate. Antea Group does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. 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.

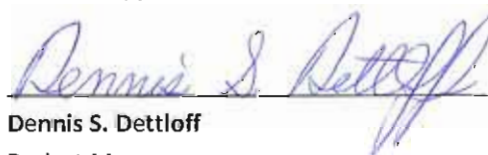
Prepared by:



Edward T. Weyrens, G.I.T.
Staff Geologist

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:



Dennis S. Dettloff
Project Manager
California Registered Professional Geologist No. 7480

Date: 4/28/11



cc: GeoTracker (upload)

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- Figure 2 Site Plan
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- Figure 4 Dissolved Phase TPHg Isoconcentration Map – March 14, 2011
- Figure 5 Dissolved Phase Benzene Isoconcentration Map – March 14, 2011
- Figure 6 Dissolved Phase MTBE Isoconcentration Map – March 14, 2011
- Figure 7 Dissolved Phase DRO Isoconcentration Map – March 14, 2011
- Figure 8 Historical Groundwater Flow Directions

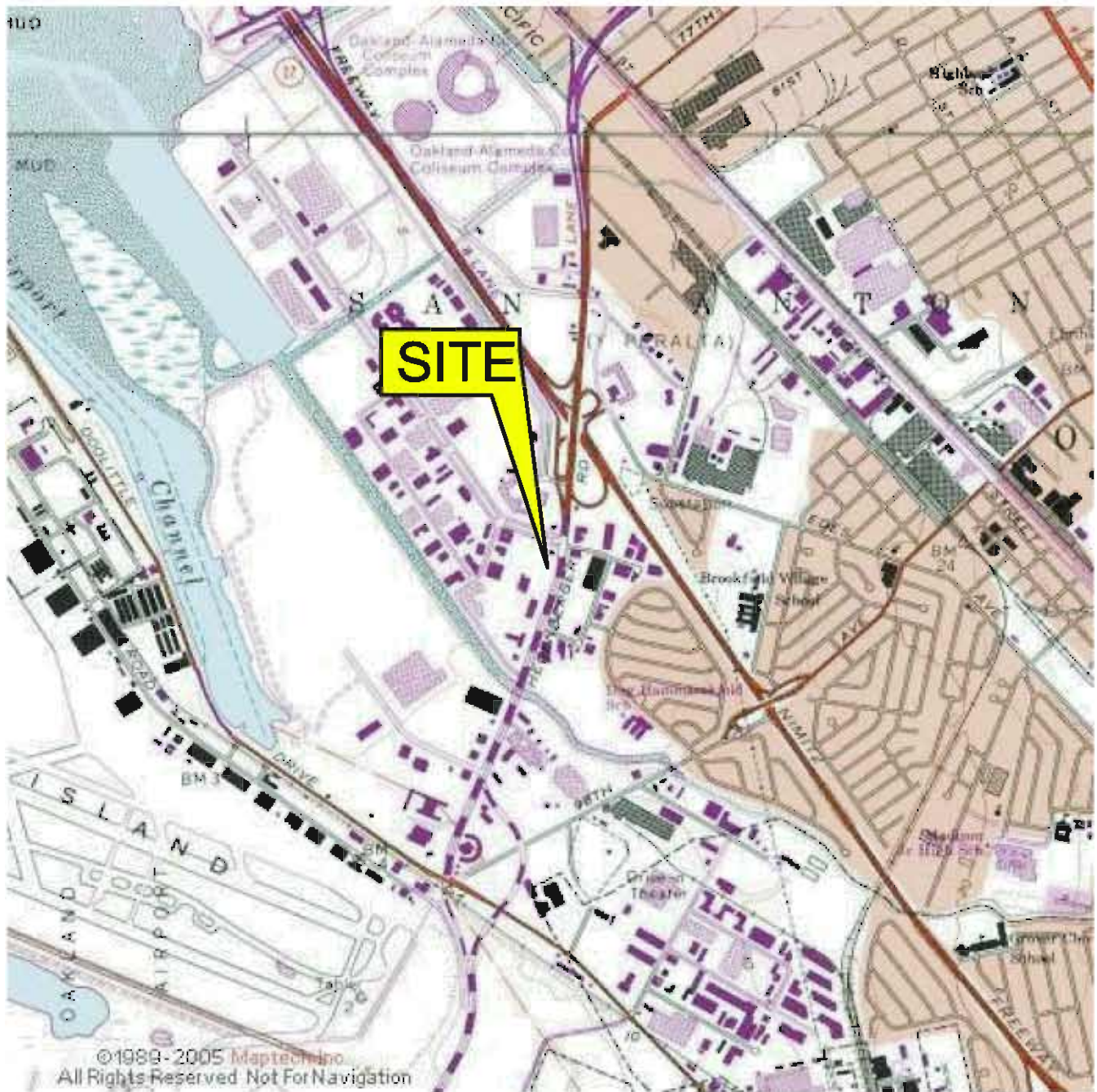



FIGURE 1
SITE LOCATION MAP

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

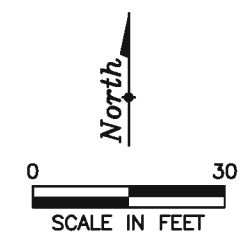
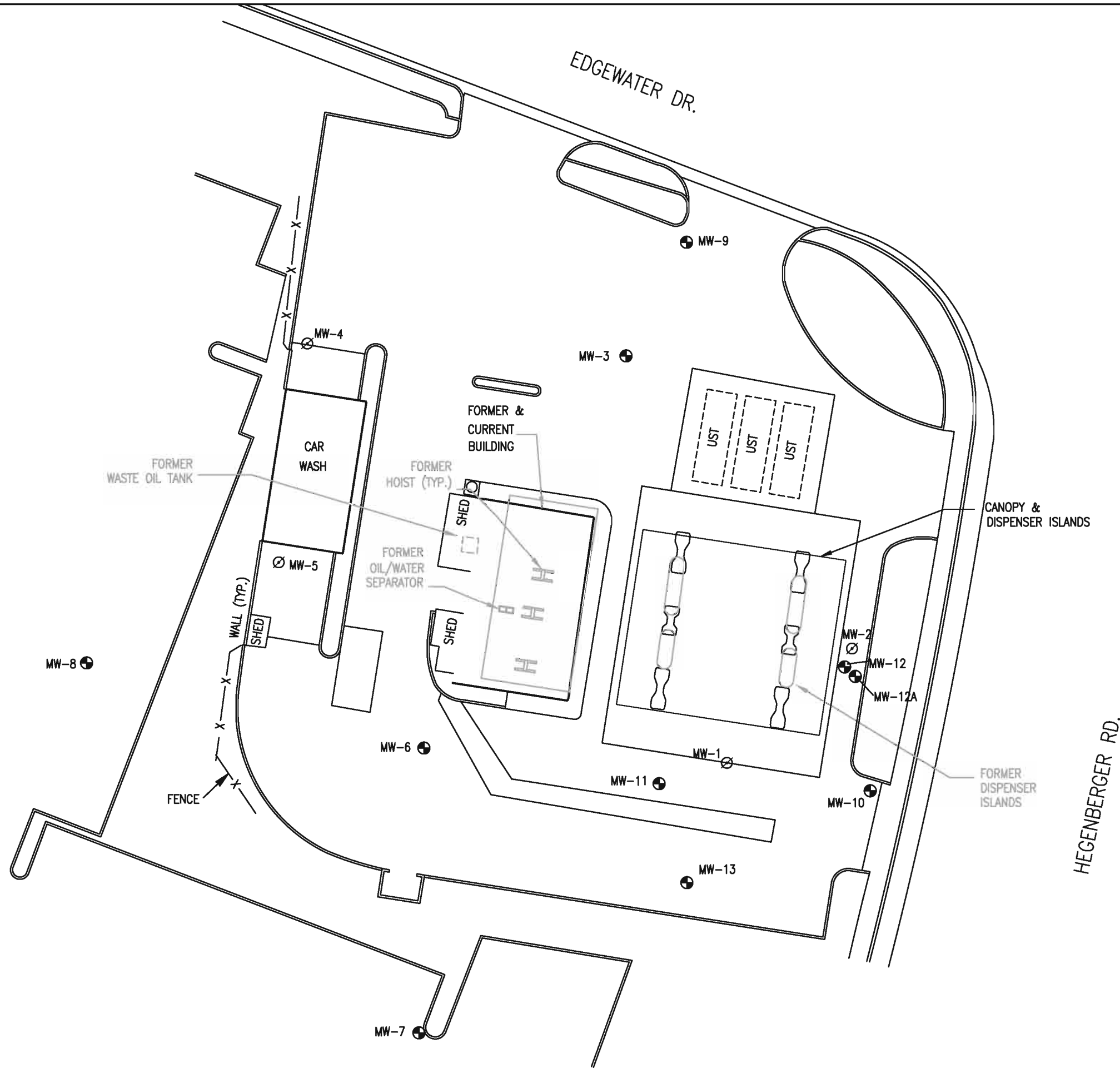
PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY DR/JH	
DATE 1/31/11	REVIEWED BY DD	FILE NAME 5043-SiteLocator	

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

EDGEWATER DR.


LEGEND

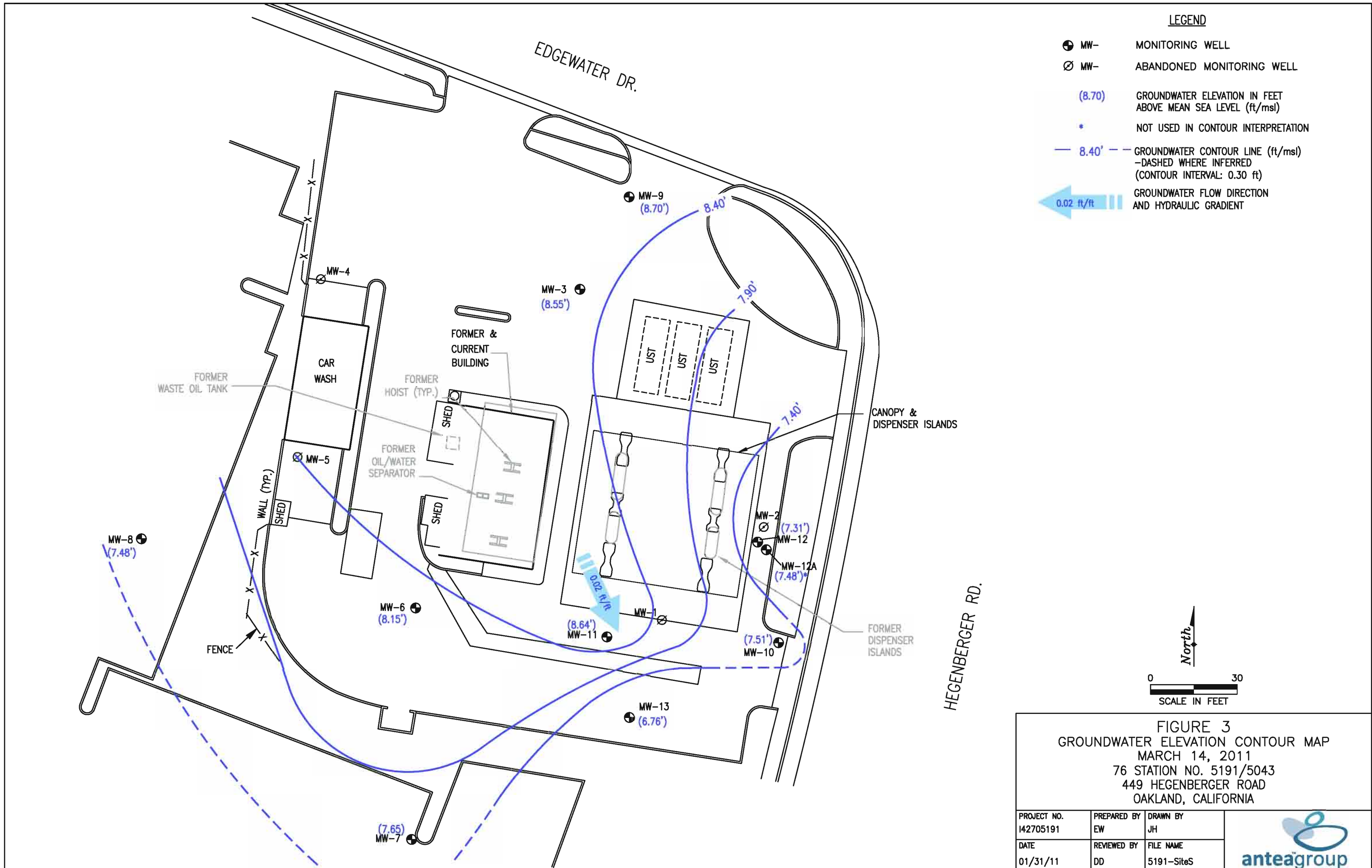
- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL



**FIGURE 2
SITE PLAN**

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY JF	DRAWN BY JH	
DATE 1/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS	




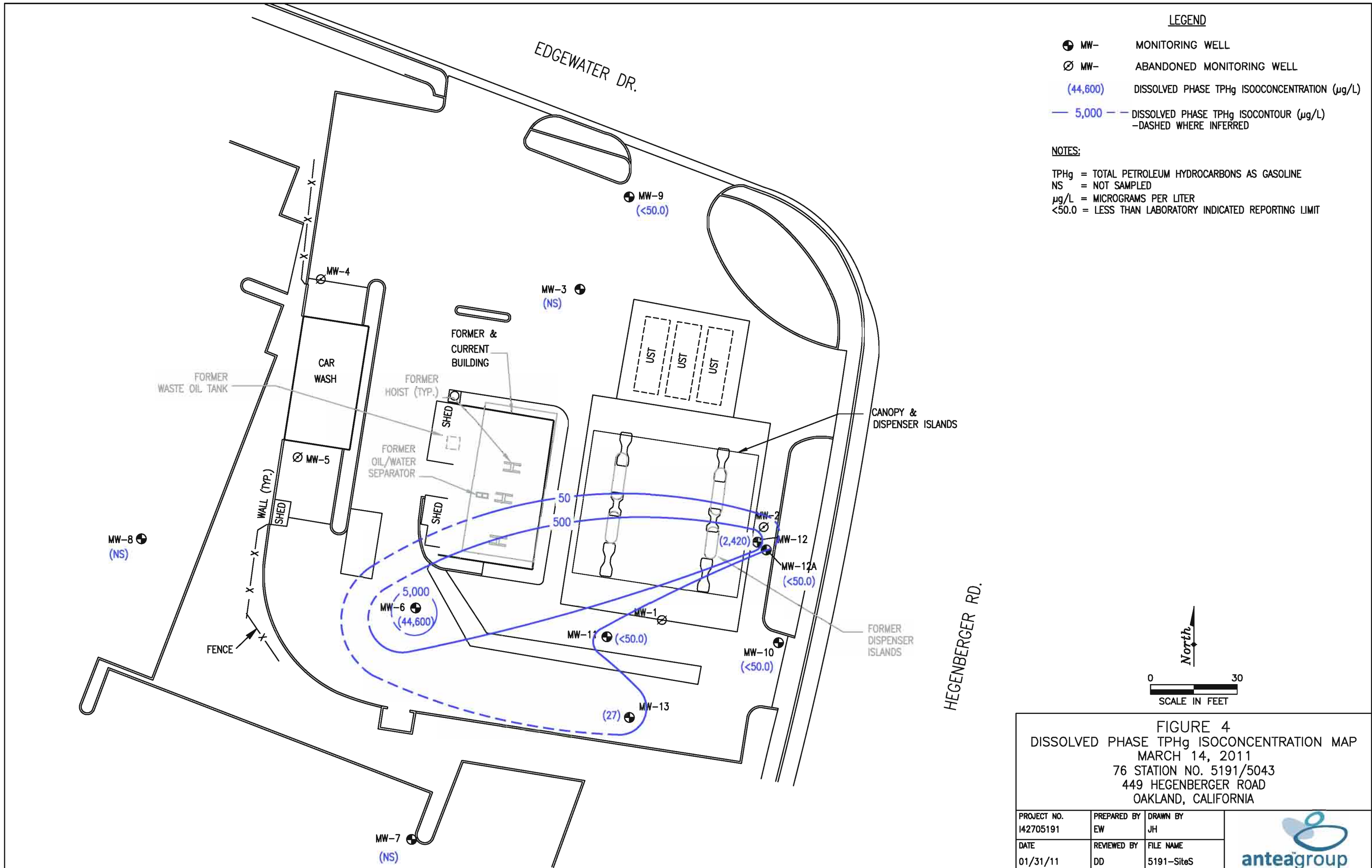
LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (8.70) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (ft/msl)
- *
- 8.40' — GROUNDWATER CONTOUR LINE (ft/msl) — DASHED WHERE INFERRED (CONTOUR INTERVAL: 0.30 ft)
- ← 0.02 ft/ft → GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT

FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
 MARCH 14, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH
DATE 01/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (44,600) DISSOLVED PHASE TPHg ISOCONCENTRATION (µg/L)
- 5,000 — DISSOLVED PHASE TPHg ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 NS = NOT SAMPLED
 µg/L = MICROGRAMS PER LITER
 <50.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT

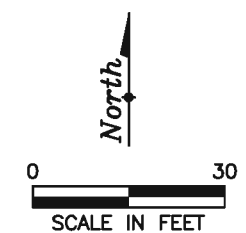
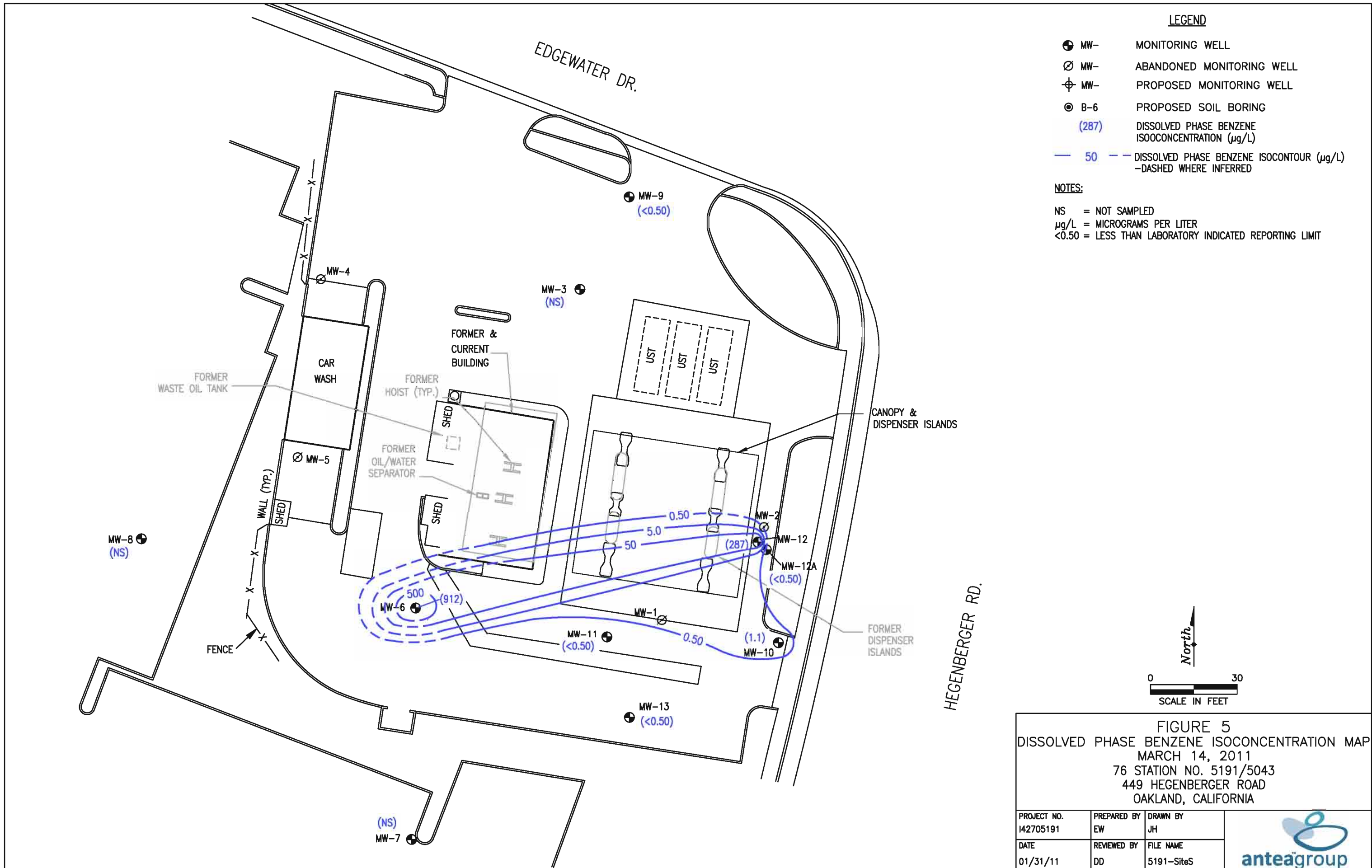


FIGURE 4
 DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
 MARCH 14, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH	
DATE 01/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS	



LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- ⊕ MW- PROPOSED MONITORING WELL
- ⊙ B-6 PROPOSED SOIL BORING
- (287) DISSOLVED PHASE BENZENE ISOCONCENTRATION (µg/L)
- 50 — DISSOLVED PHASE BENZENE ISOCONTOUR (µg/L) —DASHED WHERE INFERRED

NOTES:

- NS = NOT SAMPLED
- µg/L = MICROGRAMS PER LITER
- <0.50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT

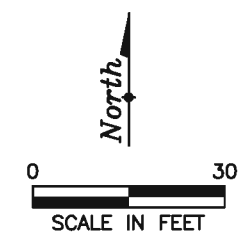
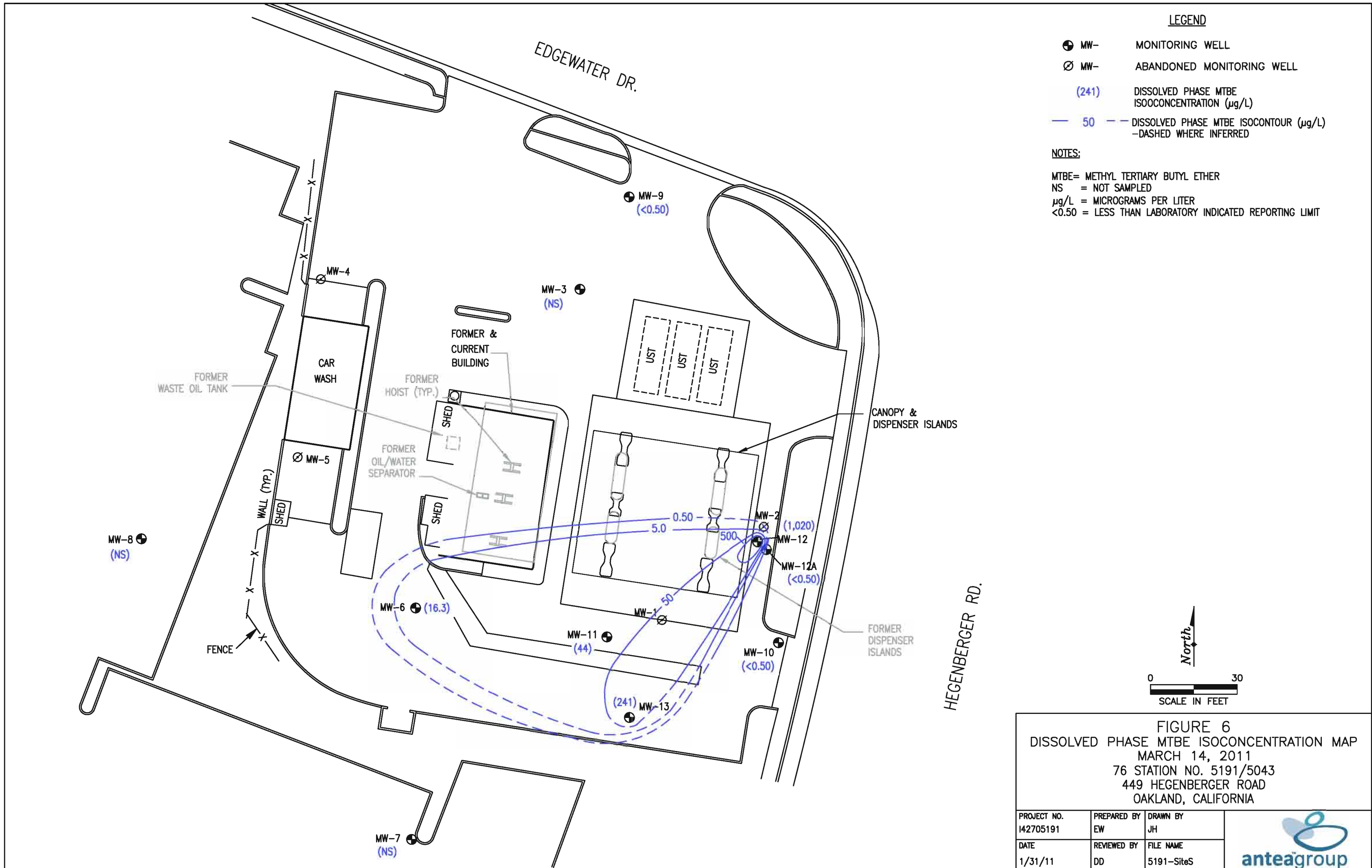


FIGURE 5
 DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
 MARCH 14, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH
DATE 01/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (241) DISSOLVED PHASE MTBE ISOCONCENTRATION (µg/L)
- 50 — DISSOLVED PHASE MTBE ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

MTBE= METHYL TERTIARY BUTYL ETHER
 NS = NOT SAMPLED
 µg/L = MICROGRAMS PER LITER
 <0.50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT

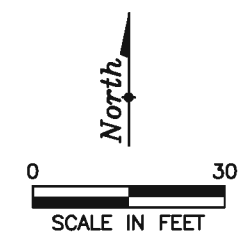
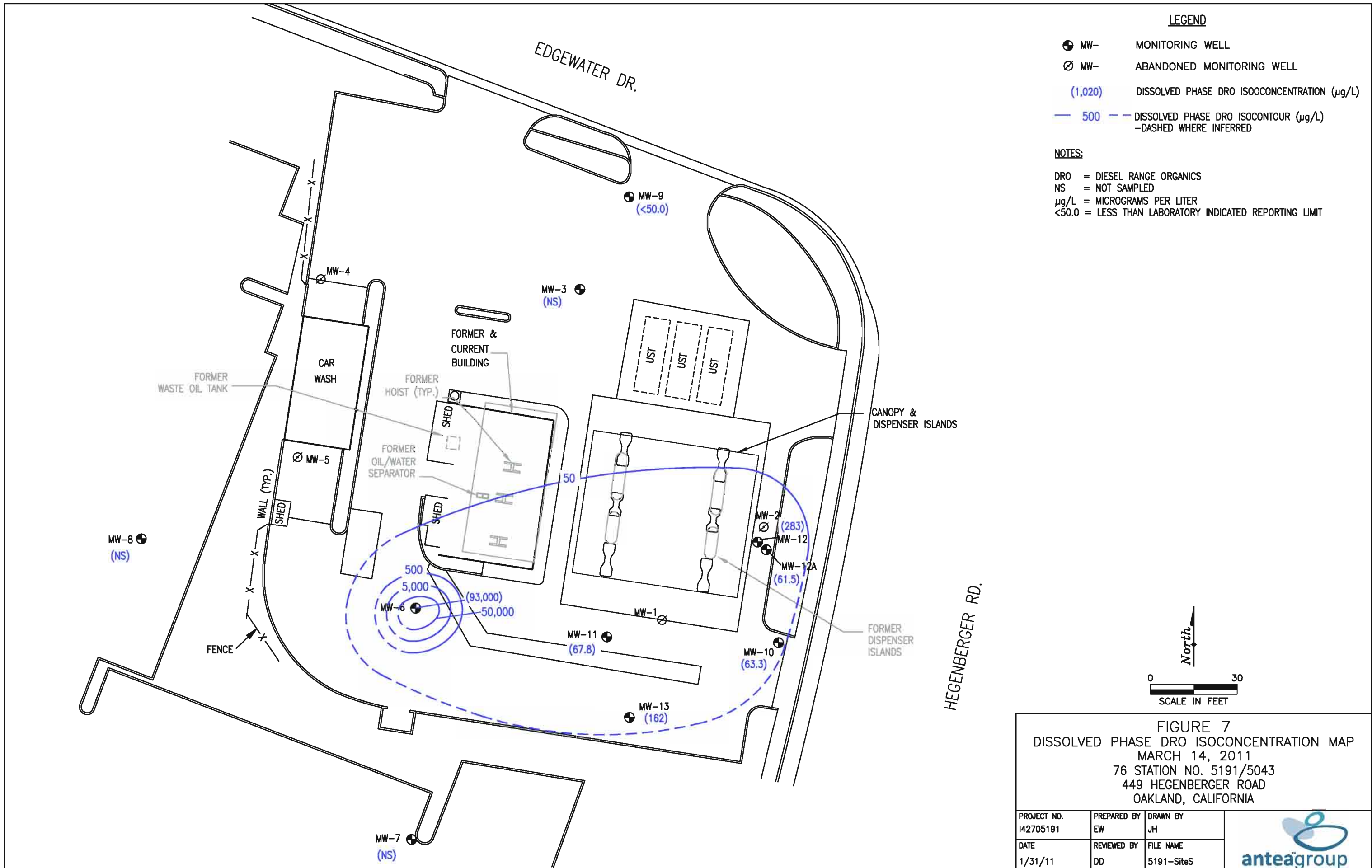


FIGURE 6
 DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
 MARCH 14, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH	
DATE 1/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS	



LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (1,020) DISSOLVED PHASE DRO ISOCONCENTRATION (µg/L)
- 500 — DISSOLVED PHASE DRO ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

- DRO = DIESEL RANGE ORGANICS
- NS = NOT SAMPLED
- µg/L = MICROGRAMS PER LITER
- <50.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT

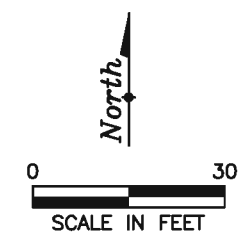
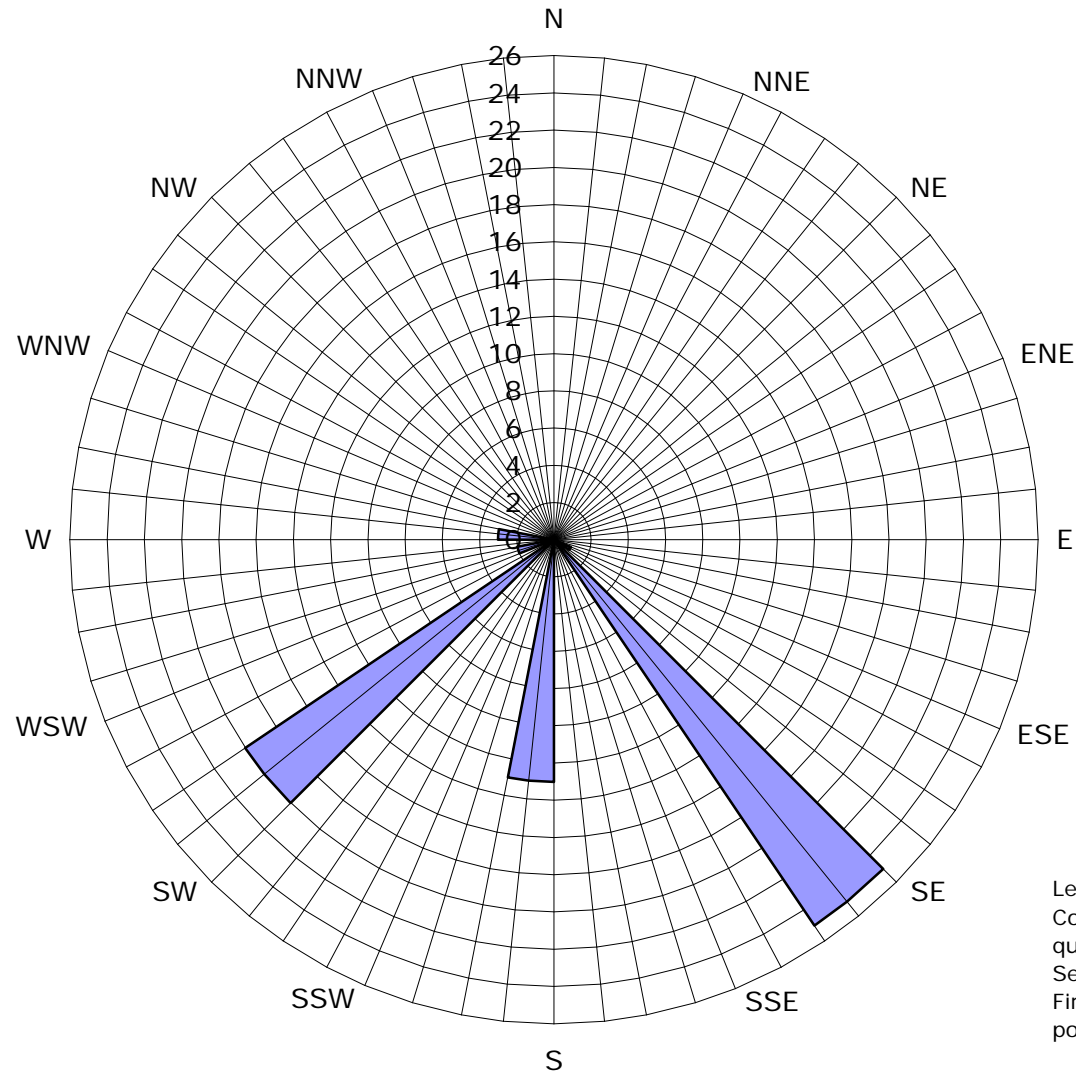


FIGURE 7
 DISSOLVED PHASE DRO ISOCONCENTRATION MAP
 MARCH 14, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH	
DATE 1/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS	

Figure 8
Historical Groundwater Flow Directions
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California



Legend
Concentric circles represent
quarterly monitoring events
Second Quarter 1992 through
First Quarter 2011 64 data
points shown

■ Groundwater Flow Direction

Tables

Table 1	Well Construction Details
Table 2	Current Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Gauging and Analytical Data
Table 3a	Additional Historical Groundwater Analytical Data
Table 4	Historical Groundwater Gradient and Flow Direction Data

Table 1
Well Construction Details
 76 Station No. 5191/5043
 449 Hegenberger Road
 Oakland, CA

Well I.D.	Drill Date	Well		Screen		Screen Length (feet)	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)		
Monitoring Wells							
MW-1	02/05/91	13.5	2	2.0	13.0	11.0	Abandoned
MW-2	02/05/91	15.0	2	3.0	15.0	12.0	Abandoned
MW-3	02/05/91	14.0	2	2.0	14.0	12.0	
MW-4	08/21/92	13.5	2	2.5	13.5	11.0	Abandoned
MW-5	08/21/92	13.5	2	2.5	13.5	11.0	Abandoned
MW-6	08/21/92	13.5	2	2.5	13.5	11.0	
MW-7	04/21/97	13.0	2	3.0	13.0	10.0	
MW-8	04/21/97	15.0	2	3.0	15.0	12.0	
MW-9	01/25/95	13.0	2	3.0	13.0	10.0	
MW-10	01/25/95	13.0	2	3.0	13.0	10.0	
MW-11	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12A	06/23/10	34.0	2	30.0	34.0	4.0	
MW-13	06/22/10	15.0	2	5.0	15.0	10.0	
Explanation							
Wells are of poly-vinyl-chloride (PVC) construction							
bgs = Below ground surface							

TABLE 2
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5191/5043
449 HEGENBERGER RD
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DRO (ug/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Sulfate (ug/L)
MW-3	3/14/2011	10.81	2.26	NP	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	3/14/2011	11.55	3.40	NP	8.15	44600	912	338	728	3670	16.3	134	<250	93000	4900	4900	50.1	<10.0	54.2	35400
MW-7	3/14/2011	11.64	3.81	NP	7.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	3/14/2011	11.32	3.84	NP	7.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/14/2011	10.94	2.24	NP	8.70	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<250	<50.0	1560	1560	<50.0	<10.0	<50.0	8980
MW-10	3/14/2011	10.97	3.46	NP	7.51	<50.0	1.1	<0.50	<0.50	<1.5	<0.50	<5.0	<250	63.3	2620	2620	--	--	2350	68600
MW-11	3/14/2011	10.53	1.89	NP	8.64	<50.0	<0.50	<0.50	<0.50	<1.5	44.0	<5.0	<250	67.8	756	756	--	--	<50.0	59900
MW-12	3/14/2011	11.01	3.70	NP	7.31	2420	287	80.9	49.1	243	1020	69.6	<250	283	793	793	<50.0	60.6	54.4	2500000
MW-12A	3/14/2011	11.29	3.81	NP	7.48	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<250	61.5	523	523	--	--	4790	81000
MW-13	3/14/2011	11.08	4.32	NP	6.76	127 2n	<0.50	<0.50	<0.50	<1.5	241	125	<250	162	44600	44600	--	--	<50.0	375000

Gauging Notes:

TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
-- - No information available

Analytical Notes:

Bold - Above laboratory's indicated reporting limit
< - Below laboratory's indicated reporting limit
ug/L - micrograms/liter
TPHg - Total petroleum hydrocarbons as gasoline
MTBE - Methyl tertiary-butyl ether
TBA - Tertiary-butyl alcohol
DRO - diesel range organics
2n - The TPHg result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample

**TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5191/5043
449 HEGENBERGER RD
OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-6	7/15/1997	8.87	4.63	0.42	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/21/1997	8.87	4.75	0.25	4.31	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/6/1997	8.87	4.50	0.10	4.45	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/20/1997	8.87	4.55	0.10	4.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/2/1997	8.87	4.75	0.05	4.16	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/9/1997	8.87	4.84	0.04	4.06	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/14/1998	8.87	3.90	0.94	5.68	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/12/1998	8.87	3.35	0.64	6.00	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	8.87	4.51	0.02	4.38	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/1/1998	8.87	3.67	1.60	6.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/26/1998	8.87	4.11	0.50	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/15/1998	8.87	5.03	0.30	4.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/15/1998	8.87	4.56	0.05	4.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/21/1998	8.87	4.77	0.02	4.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1998	8.87	5.08	0.03	3.81	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/16/1998	8.87	4.31	2.40	6.36	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/6/1998	8.87	3.98	0.17	5.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/25/1998	8.87	3.92	0.10	5.03	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/28/1998	8.87	3.90	0.20	5.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/25/1999	8.87	4.18	0.60	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/22/1999	8.87	4.07	0.22	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/22/1999	8.87	4.32	0.15	4.66	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/15/1999	8.87	4.23	0.95	5.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/28/1999	8.87	4.38	0.39	4.78	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/29/1999	8.87	4.12	0.02	4.77	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/14/1999	8.87	4.20	0.03	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/23/1999	8.87	4.51	0.24	4.54	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1999	8.87	4.17	0.17	4.83	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/21/1999	8.87	4.27	0.12	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/29/1999	8.87	4.18	NP	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/20/1999	8.87	4.26	0.01	4.62	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/20/2000	8.87	4.31	NP	4.56	130000	2900	8600	2000	16000	ND	--	--	--	--	--	--	--	--	67600
	2/26/2000	8.87	3.98	NP	4.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/31/2000	8.87	4.14	NP	4.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/13/2000	8.87	4.04	NP	4.83	140000	5000	14000	3600	27000	7700	--	--	--	--	--	--	--	--	8700
	5/26/2000	8.87	4.41	NP	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/17/2000	8.87	4.35	NP	4.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/14/2000	8.87	4.47	NP	4.40	259000	7670	13700	6860	40700	ND	ND	--	--	--	--	--	--	--	133000
	8/24/2000	8.87	3.71	NP	5.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	8.87	4.33	NP	4.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/26/2000	8.87	4.32	NP	4.55	110000	7000	6200	3700	12000	670	43	--	--	--	--	--	--	--	61000	
1/3/2001	8.87	4.52	NP	4.35	84700	3950	4130	3650	11800	ND	ND	--	--	--	--	--	--	--	929	
4/4/2001	8.87	4.29	NP	4.58	69800	2060	2840	3650	10900	ND	47.8	ND	ND	ND	ND	ND	ND	ND	18000	
7/17/2001	8.87	4.37	NP	4.50	100000	3200	3300	3400	12000	ND	--	--	--	--	--	--	--	--	20000	
10/1/2001	8.87	4.45	NP	4.42	110000	3200	2400	4500	13000	<1000	--	--	--	--	--	--	--	--	24000	
1/31/2002	8.87	4.03	NP	4.84	230000	2400	1800	5400	16000	<2500	--	--	--	--	--	--	--	--	11000	
4/18/2002	8.87	3.45	NP	5.42	94000	6800	13000	3000	19000	<500	--	--	--	--	--	--	--	--	3500	
7/28/2002	8.87	2.24	NP	6.63	110000	530	170	3200	7300	--	<100	--	--	--	--	--	--	--	27000	
10/9/2002	8.87	3.53	NP	5.34	970000	10000	39000	13000	94000	--	<2000	--	--	--	--	--	--	--	170000	
1/2/2003	8.87	2.34	NP	6.53	270000	6100	15000	5400	37000	--	<200	--	--	--	--	--	--	--	66000	
4/1/2003	8.87	3.17	NP	5.70	3000000	8000	39000	37000	260000	--	<2000	--	--	--	--	--	--	--	35000	
7/1/2003	8.87	3.55	NP	5.32	38000	2100	990	2700	6500	--	<100	--	<25000	--	--	--	--	--	11000	
10/2/2003	8.87	3.82	NP	5.05	100000	5600	6900	4700	18000	--	<800	--	<200000	--	--	--	--	--	<50	
1/9/2004	8.87	2.80	NP	6.07	170000	2800	3300	4700	16000	--	<200	--	<50000	--	--	--	--	--	20000	
4/26/2004	8.87	3.40	NP	5.47	97000	5900	9000	5100	23000	--	<50	--	<5000	--	--	--	--	--	13000	

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Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-10	7/28/2002	8.62	4.11	NP	4.51	67	15	<0.50	0.94	7.3	--	<2.0	--	--	--	--	--	--	--	58
	10/9/2002	8.62	3.97	NP	4.65	<50	0.67	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	<94
	1/2/2003	8.62	3.03	NP	5.59	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	64
	4/1/2003	8.62	3.83	NP	4.79	<50	11	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	76
	7/1/2003	8.62	4.13	NP	4.49	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	<500	--	--	--	--	--	87
	10/2/2003	8.62	4.05	NP	4.57	77	9.9	0.78	2.3	4.9	--	<2.0	--	<500	--	--	--	--	--	160
	1/9/2004	8.62	3.40	NP	5.22	53	1.2	<0.50	0.70	1.6	--	<2.0	--	<500	--	--	--	--	--	74
	4/26/2004	8.62	3.89	NP	4.73	<50	2.8	1.3	1.0	2.9	--	<0.50	--	<50	--	--	--	--	--	<50
	7/22/2004	8.62	3.73	NP	4.89	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	<1000	--	--	--	--	--	<200
	10/29/2004	8.62	3.41	NP	5.21	100	2.0	1.2	1.1	3.6	--	<0.50	--	<50	--	--	--	--	--	<50
	1/10/2005	8.62	2.68	NP	5.94	84	7.8	2.7	2.2	8.9	--	<0.50	--	<50	--	--	--	--	--	94
	6/15/2005	8.62	4.63	NP	3.99	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<50	--	--	--	--	--	62
	9/27/2005	8.62	3.96	NP	4.66	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	<10	<250	<0.50	<0.50	<0.50	--	--	<200
	12/13/2005	8.62	3.75	NP	4.87	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	3/23/2006	8.62	3.13	NP	5.49	50	13	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	6/23/2006	8.62	3.90	NP	4.72	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	9/26/2006	8.62	3.66	NP	4.96	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	<50
	12/22/2006	8.62	3.56	NP	5.06	<50	<0.50	<0.50	<0.50	1.8	--	<0.50	--	<250	--	--	--	--	--	81
	3/30/2007	8.62	3.93	NP	4.69	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	82
	6/28/2007	8.62	4.03	NP	4.59	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	57
	9/25/2007	8.62	3.91	NP	4.71	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	82
	12/28/2007	8.62	3.64	NP	4.98	<50	2.1	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	62
	3/22/2008	8.62	4.00	NP	4.62	64	13	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	6/23/2008	8.62	3.90	NP	4.72	94	30	0.53	3.4	3.5	--	<0.50	--	<250	--	--	--	--	--	<50
	9/19/2008	8.62	3.85	NP	4.77	130	15	1.7	5.7	11	--	<0.50	--	<250	--	--	--	--	--	<50
	12/31/2008	8.62	3.69	NP	4.93	82	11	<0.50	0.81	1.7	--	<0.50	--	<250	--	--	--	--	--	<50
3/27/2009	8.62	3.75	NP	4.87	210	28	1.4	1.2	3.9	--	<0.50	--	<250	--	--	--	--	--	730	
5/28/2009	8.62	3.66	NP	4.96	<50	0.91	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50	
9/17/2009	8.62	3.85	NP	4.77	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	65	
12/17/2009	8.62	3.00	NP	5.62	<50.0	1.2	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	110	
3/29/2010	8.62	3.81	NP	4.81	<50.0	0.77	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	82.2	
6/30/2010	10.97	3.90	NP	7.07	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	53.4	
7/6/2010	10.97	3.73	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	10.97	3.85	NP	7.12	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	<50.0	
12/8/2010	10.97	3.63	NP	7.34	<50.0	1.8	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	<50.0	
3/14/2011	10.97	3.46	NP	7.51	<50.0	1.1	<0.50	<0.50	<1.5	--	<0.50	<5.0	<250	--	--	--	--	--	63.3	
MW-11	7/6/2010	10.53	2.44	NP	8.09	99.2	<0.50	<0.50	<0.50	<1.5	--	165	174	<250	<0.50	<0.50	<0.50	<1.0	<1.0	226
	9/20/2010	10.53	2.80	NP	7.73	76.4	<0.50	<0.50	<0.50	<1.5	--	82.7	--	<250	--	--	--	--	--	<50.0
	12/8/2010	10.53	1.90	NP	8.63	<50.0	<0.50	<0.50	<0.50	<1.5	--	59.1	--	<250	--	--	--	--	--	52.7
	3/14/2011	10.53	1.89	NP	8.64	<50.0	<0.50	<0.50	<0.50	<1.5	--	44.0	<5.0	<250	--	--	--	--	--	67.8
MW-12	7/6/2010	11.01	4.00	NP	7.01	20300	1030	955	311	2450	--	1650	1430	<250	<0.50	<0.50	1.0	<1.0	<1.0	990
	9/20/2010	11.01	4.18	NP	6.83	73700	6020	6390	2970	18300	--	894	--	<250	--	--	--	--	--	5220
	12/8/2010	11.01	3.92	NP	7.09	3350	249	117	89.8	558	--	1470	--	<2500	--	--	--	--	--	428
	3/14/2011	11.01	3.70	NP	7.31	2420	287	80.9	49.1	243	--	1020	69.6	<250	--	--	--	--	--	283
MW-12A	7/6/2010	11.29	4.22	NP	7.07	664	18.3M0	0.78	2.3	50.2M0	--	14.3M0	11.9M0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	89.3
	9/20/2010	11.29	4.39	NP	6.90	<50.0	<0.50	<0.50	<0.50	<1.5	--	8.5	--	<250	--	--	--	--	--	<50.0
	12/8/2010	11.29	4.00	NP	7.29	<50.0	<0.50	<0.50	<0.50	<1.5	--	9.4	--	<250	--	--	--	--	--	76.4
	3/14/2011	11.29	3.81	NP	7.48	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<5.0	<250	--	--	--	--	--	61.5

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5191/5043
449 HEGENBERGER RD
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-13	7/6/2010	11.08	4.26	NP	6.82	122	<0.50	<0.50	<0.50	<1.5	--	217	199	<250	<0.50	<0.50	<0.50	<1.0	<1.0	469
	9/20/2010	11.08	4.81	NP	6.27	250	<0.50	<0.50	<0.50	<1.5	--	272	--	<250	--	--	--	--	--	<50.0
	12/8/2010	11.08	5.02	NP	6.06	177	<0.50	<0.50	<0.50	<1.5	--	390	--	<250	--	--	--	--	--	97.0
	3/14/2011	11.08	4.32	NP	6.76	127	<0.50	<0.50	<0.50	<1.5	--	241	125	<250	--	--	--	--	--	162

Gauging Notes:

TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
NG - Not gauged
WD - Well Destroyed
WI - Well Inaccessable
WO - Well Obstruction
NSVD - Not surveyed
-- - No information available

Analytical Notes:

-- - No information available
< - Below laboratory's indicated reporting limit
LPH - Liquid Phase Hydrocarbons
M0 - 209.
ND - Not detected, and detection limit is not known
NS - Well not sampled.
ug/L - micrograms/liter
WD - Well Destroyed
WI - Well Inaccessable
WO - Well Obstruction
TPHg - Total petroleum hydrocarbons as gasoline
MTBE - Methyl tertiary-butyl ether
TBA - Tertiary-butyl alcohol
DIPE - Di-isopropyl ether
ETBE - Ethyl tertiary-butyl ether
TAME - Tertiary-amyl methyl ether
DRO - diesel range organics

TABLE 3a
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 Service Station No. 5191/5043
449 HEGENBERGER RD
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oil and Grease (ug/L)	Sulfate (ug/L)
MW-3	12/17/2009	12300	12300	<50.0	<50.0	--	<50.0	--	<500
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	10700	5550	<50.0	--	95.0	75.7	--	<5000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
MW-6	9/17/2009	1500	1500	<0.44	--	--	--	--	<1.0
	12/17/2009	2460	2460	<50.0	<50.0	--	<50.0	--	<500
	3/29/2010	1510	1510	<50.0	--	41.3	54.9	--	<1000
	6/30/2010	2310	946	<50.0	--	57.9	69.3	--	<5000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	2600	2600	<50.0	--	<10.0	52.1	--	<1000
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	4900	4900	50.1	--	<10.0	54.2	--	35400
MW-7	6/30/2010	7550	7550	<50.0	--	73.9	73.6	--	191000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
MW-8	6/30/2010	8000	4710	<50.0	--	68.2	59.7	--	2360000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
MW-9	12/17/2009	2270	2270	<50.0	<50.0	--	<50.0	--	11000
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	8820	3210	<50.0	--	14.9	<50.0	--	19000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	1560	1560	<50.0	--	<10.0	<50.0	--	8980
MW-10	9/17/2009	9800	9800	12	--	--	--	--	84
	12/17/2009	3410	3410	1970	60.3	--	2030	--	86000
	3/29/2010	2410	2410	1960	--	18.7	1970	--	73600
	6/30/2010	1860	216	2120	--	68.1	2190	--	70800
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	3080	280	2690	--	68.2	2750	--	82000
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	2620	2620	--	--	--	2350	--	68600
MW-11	7/6/2010	3510	<100	<50.0	--	31.0	66.9	--	82100
	9/20/2010	1690	<100	167	--	<10.0	172	--	58300
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	756	756	--	--	--	<50.0	--	59900
MW-12	7/6/2010	30200	<100	<50.0	--	60.5	<50.0	--	3030000
	9/20/2010	3890	552	72.3	--	<10.0	75.2	--	1970000
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	793	793	<50.0	--	60.6	54.4	--	2500000
MW-12A	7/6/2010	57300	716	3680	--	164	3840	--	100000
	9/20/2010	523	<100	4680	--	10.2	4690	--	82500
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	523	523	--	--	--	4790	--	81000
MW-13	7/6/2010	92600	116	<50.0	--	64.9	70.4	--	450000
	9/20/2010	59500	59500	<50.0	--	<10.0	<50.0	--	241000
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	44600	44600	--	--	--	<50.0	--	375000

Analytical Notes:
-- - No information available
< - Below laboratory's indicated reporting limit
LPH - Liquid Phase Hydrocarbons
ND - Not detected, and detection limit is not known
NS - Well not sampled.
ug/L - micrograms/liter

TABLE 4
Historical Groundwater Gradient and Flow Direction Data
 76 Station No. 5191/5043
 449 Hegenberger Road
 Oakland, California

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction															
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
	04/22/92		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	08/31/92	0.05	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	11/30/92	0.04	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
	02/07/94		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	11/14/94	0.03	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	02/21/95	0.08	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	05/18/95	0.07	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	07/26/96	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	10/28/96	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	01/29/97	0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	04/15/97	0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	07/15/97	0.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	10/09/97	0.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	01/14/98	0.02	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	04/01/98	0.05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	07/15/98	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	09/30/98	0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	01/25/99	0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	04/15/99	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	10/21/99	0.03	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	07/14/99	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	04/13/00	0.050	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	07/14/00	0.033	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	10/26/00	0.060	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	01/03/01	0.070	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	07/17/01	0.040	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	10/01/01	0.030	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	01/31/02	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	07/28/02	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	10/09/02	0.016	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	01/02/03	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	04/01/03	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	07/29/09	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	10/02/03	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	01/09/04	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	04/26/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	07/22/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	10/29/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	01/10/05	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	06/15/05	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	09/27/05	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	12/13/05	0.005	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	03/23/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	06/23/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	09/26/06	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	12/22/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	03/30/07	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	09/25/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	12/28/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	06/28/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	03/22/08	0.020	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	06/23/08	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
	09/19/08	0.006	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	12/31/08	0.005	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	03/27/09	0.006	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	05/28/09	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	09/17/09	0.010	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	
	12/17/09	0.008	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	03/29/10	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	06/30/10	0.009	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	09/20/10	0.007	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	12/08/10	0.018	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	03/14/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	0.046 Average		0	0	0	0	0	1	25	0	13	0	20	2	3	0	0	0

Explanation
 NA = Not available
 Number of Events = 60

Quarterly Summary Report, First Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix A

Site Details and Summary of Previous Environmental Investigations

PREVIOUS INVESTIGATION AND SITE HISTORY SUMMARY

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 feet bgs.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site to a depth of 13.5 feet bgs.

September 1994 - One 280-gallon waste-oil UST was removed from the site. The UST was made of steel, and no apparent holes or cracks were observed in the UST. One soil sample was collected from beneath the former UST at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported.

January 1995 - Two additional monitoring wells, MW-9 and MW-10, were installed to depths of 13 and 15 feet bgs. In addition, monitoring well MW-3, which was damaged during the UST cavity over excavation in 1995, was fully drilled out and reconstructed in the same borehole.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained total petroleum hydrocarbons as diesel (TPHd) and benzene, and TPH as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed off-site. Four fuel dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over excavated. Confirmation samples contained petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photo-ionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill.

April 1997 - Two additional monitoring wells, MW-7 and MW-8, were installed off-site to the south and east on the neighboring property to a depth of 13 feet bgs. In addition, two existing monitoring wells were destroyed in order to accommodate the construction of a car wash at the site. Monitoring wells MW-4 and MW-5 were fully drilled out and backfilled with neat cement.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) test at the site using monitoring well MW-6. The 24-hour DPE test was only moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

December 2009 - Delta advanced two borings, B-4 and B-5, to depths of 20 feet bgs and 32 feet bgs, respectively. Analytical results from the soil and groundwater samples collected from these two borings indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

June 2010 – Delta installed two 4-inch diameter monitoring/extraction wells, MW-11 and MW-12, and two 2-inch diameter monitoring wells, MW-12A and MW-13, at the site. Analytical results from the soil and groundwater samples collected from the MW-12 and MW-12A boring locations indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

SENSITIVE RECEPTORS

April 24, 2006, TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within one-half mile of the site. The closest well is an irrigation well, reported to be, approximately 1,080 feet southeast of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

Current Consultant: **Antea Group**

Quarterly Summary Report, First Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix B

Blaine Tech Services Groundwater Sampling Procedures

BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for DELTA comply with safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any DELTA COP/ELT site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of Immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). No samples are collected from a well containing free product.

EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less

than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous manifest to a Blaine Tech Services, Inc. facility before being transported to an approved disposal facility.

SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

TRIP BLANKS

Upon request, a Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

DUPLICATES

Upon request, one Duplicate sample is collected at each site. It is up to the Field Technician to choose the well at which the Duplicate is collected. Typically, a duplicate is collected from one of the most contaminated wells. The Duplicate sample is labeled DUP thus rendering the sample blind.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps

and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 550 meter). These meters are equipped with membrane probe that enables them to collect accurate in-situ readings.

The probe and reel is decontaminated between wells as described above. The meter is calibrated as per the instructions in the operating manual. The probe is lowered into the water column allowed to stabilize before use.

OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

Quarterly Summary Report, First Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix C

Blaine Tech Services Groundwater Sampling Field Data Sheets

COP-ELT Well-Head Inspection & Well Gauging Form

Project No: 2705191

Site Address: 449 HAGENBERGER RD. OAKLAND CA

Field Technician: AK

Date: 3-14-11

Weather: OVERCAST/RAIN

Well Condition														
Sample Order	Field Point	Well Condition						Well Casing Dia.	Time Gauged	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
		Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box							
4	MW-3	G	G	G	G	G	Y	2	919	2.26	13.92	—	—	
10	MW-6	G	G	G	G	G	N	2	1002	3.40	12.69	—	—	
2	MW-7	G	G	G	G	G	N	2	882	3.81	13.00	—	—	
1	MW-8	G	G	G	G	G	Y	2	842	3.84	14.70	—	—	
3	MW-9	P	G	G	G	G	Y	2	909	2.24	12.63	—	—	1/3 BOLTS MISSING/TABS BROKE
5	MW-10	G	G	G	G	G	N	2	924	3.46	12.70	—	—	
6	MW-11	G	G	G	G	G	N	4	937	1.89	19.59	—	—	
9	MW-12	G	G	G	G	G	N	4	954	3.70	19.50	—	—	CAP NOT ON CASING WHEN WELL INITIALLY OPENED
8	MW-12A	G	G	G	G	G	Y	2	949	3.81	32.74	—	—	RIM SEAL REPLACED
7	MW-13	G	G	G	G	G	N	2	943	4.32	14.60	—	—	

Notes: _____

** All well caps opened at least 15 minutes or longer before gauging wells:

CIRCLE ONE: YES or NO**



Note: Use G=good and P=poor for well condition

COP-ELT Groundwater Sampling Form

Site Address:	449 HEGERBERGER RD. CAKLAND CA		
Project No:	2705191	Field Technician:	AK
Field Point:	MW-6	Date:	3-14-11
Depth to Water (DTW) (ft bgs):	3.40	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	-	Thickness of LNAPL (ft):	-
Total Depth of Well (ft bgs):	12.69	Water Column Height (ft):	9.29

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 9.29	X Conversion Factor (gal/ft): 0.17	= Casing Volume (gal): 1.57
Casing Volume (gal): 1.57	X Specified Volumes: 3	= Calculated Purge (gal): 4.73
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: 1610	Stop Time: 1815						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				N/A		N/A		
1611	17.90	6.36	29947	28.8	16	0.75	1.0	
1612	17.95	7.07	3209	-27.9	14	0.89	2.0	
1613	17.10	7.05	1997	-37.0	10	0.67	3.0	
1614	16.74	7.03	2381	-32.0	8	0.24	4.0	
1615, DEWATERED	⊙	4.25	GALLONS	DTW = 10.74				
1815	16.92	6.89	2011	-39.7	69	0.82	-	
Post-Purge				N/A		N/A		
Did Well dewater?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Purge volume (gal): 4.25					

Other Comments: Fe²⁺: 1.0
80% = 5.25, DTW: 6.20 (2 hrs)

Sample Info:	
Sample ID: MW-6-20110331	Sample Date and Time: 3-14-11 @ 1815
Selected Analysis: SEE SOW	

Signature: JKM Date: 3-14-11



COP-ELT Groundwater Sampling Form

Site Address: 449 HASENBERGER RD. OAKLAND CA	
Project No: 2705191	Field Technician: AK
Field Point: MW-9	Date: 3-14-11
Depth to Water (DTW) (ft bgs): 2.24	Well Diameter (in): ② 4 6 8
Depth to LNAPL (ft bgs): -	Thickness of LNAPL (ft): -
Total Depth of Well (ft bgs): 12.63	Water Column Height (ft): 10.39

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer W/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 10.39 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.76 Casing Volume (gal): 1.76 X Specified Volumes: 3 = Calculated Purge (gal): 5.29		

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius² * 0.163

Purge:		Start Time: 1048							Stop Time: 1050
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low Flow only)	
Pre-Purge				N/A		N/A			
1049	16.20	6.66	862	38.2	303	2.92	1.0		
1049	17.10	6.50	2255	89.1	147	1.08	2.0		
1050	17.28	6.50	1741	78.6	67	0.59	3.0		
DEWATERED @		3.5 GALLONS							
1330	18.35	6.97	474	-10.4	159	8.75	-		
Post-Purge				N/A		N/A			

Did Well dewater? Yes No

Total Purge volume (gal): **3.5**

Other Comments: Fe²⁺: 1.4
 80% = 4.31 DTW = 4.09

Sample Info:

Sample ID: MW-9-20110331	Sample Date and Time: 3-14-11 @ 1330
Selected Analysis: SEE SOW	

Signature: *Jam* Date: **3-14-11**

COP-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD, CAKLAND CA		
Project No:	2705191	Field Technician:	AK
Field Point:	MW-10	Date:	3-14-11
Depth to Water (DTW) (ft bgs):	3.46	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.70	Water Column Height (ft):	9.24

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailor Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailor w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 9.24	X Conversion Factor (gal/ft): 0.17	= Casing Volume (gal): 1.57
Casing Volume (gal): 1.57	X Specified Volumes: 3	= Calculated Purge (gal): 4.71
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: Start Time: 1108 Stop Time: 1115

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				N/A		N/A		
1109	17.50	6.54	2821	33.8	24	0.56	1.0	
1110	17.36	6.75	2644	17.1	34	1.02	2.0	
1111	17.37	6.77	2650	12.8	16	0.95	3.0	
1112	17.65	6.82	2222	9.3	6	0.99	4.0	
1113	17.86	6.88	2005	1.5	3	0.58	5.0	
1113	18.04	6.88	1937	-0.9	3	0.65	6.0	
1114	18.18	6.89	1892	-3.1	3	0.83	7.0	
1115	18.24	6.90	1861	-4.0	3	0.94	8.0	
Post-Purge				N/A		N/A		

Did Well dewater? Yes No Total Purge volume (gal): 8.0

Other Comments: 80% = 5.30 DTW = 3.70 MS/MSD TAKEN

Sample Info:

Sample ID: MW-10_20110331	Sample Date and Time: 3-14-11 @ 1120
Selected Analysis: SEE SOW	

Signature: *[Signature]* Date: 3-14-11



COP-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD. OAKLAND CA		
Project No:	2705191	Field Technician:	AK
Field Point:	MW-11	Date:	3-14-11
Depth to Water (DTW) (ft bgs):	1.89	Well Diameter (in):	2 (4) 6 8
Depth to LNAPL (ft bgs):	-	Thickness of LNAPL (ft):	-
Total Depth of Well (ft bgs):	19.59	Water Column Height (ft):	17.70

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 17.70 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 11.68 Casing Volume (gal): 11.68 X Specified Volumes: 3 = Calculated Purge (gal): 35.04		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: 1152	Stop Time: 1209						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				N/A		N/A		
1154	18.77	7.29	1242	-24.4	9	0.24	6.0	
1158	18.90	7.30	1223	-25.0	6	0.22	12.0	
1201	18.98	7.31	1218	-25.1	6	0.22	18.0	
1204	18.98	7.33	1204	-25.8	5	0.33	24.0	
1206	19.05	7.33	1197	-26.3	5	0.48	30.0	
1209	19.03	7.31	1190	-27.1	5	0.43	36.0	
Post-Purge				N/A		N/A		
Did Well dewater? Yes (No)		Total Purge volume (gal): 36.0						

Other Comments: 80% = 5.43 DTW = 3.33

Sample Info:	
Sample ID: MW-11-20110331	Sample Date and Time: 3-14-11 @ 1210
Selected Analysis: SEE SOW	

Signature: J Kim Date: 3-14-11

Antea™ Group, 1-800-477-7411 LNAPL = light non-aqueous phase liquids gal = gallon/s
 bgs = below ground surface temp = temperature
 ORP = Oxidation-Reduction Potential NTU = Nephelometric Turbidity Units
 D.O. = dissolved oxygen mV = millivolts



COP-ELT Groundwater Sampling Form

Site Address: 449 HEGENBERGER RD. OAKLAND CA	
Project No: 2705191	Field Technician: AK
Field Point: MW-12	Date: 3-14-11
Depth to Water (DTW) (ft bgs): 3.70	Well Diameter (in): 2 0 6 8
Depth to LNAPL (ft bgs): -	Thickness of LNAPL (ft): -
Total Depth of Well (ft bgs): 19.50	Water Column Height (ft): 15.80

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailor Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailor W/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 15.80	X Conversion Factor (gal/ft): 0.66	= Casing Volume (gal): 10.42
Casing Volume (gal): 10.42	X Specified Volumes: 3	= Calculated Purge (gal): 31.28

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius² * 0.163

Purge: _____		Start Time: 1508		Stop Time: 1522				
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				N/A		N/A		
1511	18.27	6.43	25169	56.3	12	0.78	5.25	
1513	17.63	6.64	23654	53.3	12	1.04	10.50	
1515	17.96	6.52	25480	52.2	11	0.80	15.75	
1518	18.61	6.43	26410	51.3	12	0.85	21.00	
1520	18.90	6.38	26893	50.7	10	1.02	26.25	
1522	19.06	6.34	26972	50.5	10	1.17	31.50	
Post-Purge				N/A		N/A		
Did Well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Total Purge volume (gal): 31.50						

Other Comments: **Fe²⁺: 0.2**
80% = 6.86 , DTW = 6.54

Sample Info:	
Sample ID: MW-12-20110331	Sample Date and Time: 3-14-11 @ 1525
Selected Analysis: SEE SOW	

Signature: *JLM* Date: **3-14-11**



COP-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD. OAKLAND CA		
Project No:	2705191	Field Technician:	AK
Field Point:	MW-12A	Date:	3-14-11
Depth to Water (DTW) (ft bgs):	3.81	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	32.74	Water Column Height (ft):	28.93

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 28.93	X Conversion Factor (gal/ft): 0.17	= Casing Volume (gal): 4.91
Casing Volume (gal): 4.91	X Specified Volumes: 3	= Calculated Purge (gal): 14.75
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: 1431	Stop Time: 1440						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low Flow only)
Pre-Purge				N/A		N/A		
1433	18.77	6.97	2707	-47.6	>1000	0.91	2.5	
1434	19.23	6.91	3037	-46.0	>1000	0.45	5.0	
1436	19.37	6.88	3118	-44.2	111	0.30	7.5	
1437	19.44	6.83	3193	-43.2	69	0.22	10.0	
1439	19.46	6.85	3219	-42.5	48	0.26	12.5	
1440	19.47	6.82	3216	-42.4	40	0.28	15.0	
Post-Purge				N/A		N/A		
Did Well dewater?	Yes	<input checked="" type="radio"/> No	Total Purge volume (gal): 15.0					

Other Comments: 80% = 9.59 , DTW: 3.92

Sample Info:	
Sample ID: MW-12A-20110331	Sample Date and Time: 3-14-11 @ 1445
Selected Analysis: SEE SOW	

Signature: *[Signature]* Date: 3-14-11



COP-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD. OAKLAND CA		
Project No:	2705191	Field Technician:	AK
Field Point:	MW-13	Date:	3-14-11
Depth to Water (DTW) (ft bgs):	4.32	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.60	Water Column Height (ft):	10.28

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer <u>W/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 10.28	X Conversion Factor (gal/ft): 0.17	= Casing Volume (gal): 1.74
Casing Volume (gal): 1.74	X Specified Volumes: 3	= Calculated Purge (gal): 5.24

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius² * 0.163

Purge:	Start Time: 1235	Stop Time: 1242						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				N/A		N/A		
1236	19.00	7.52	1193	-14.9	4	0.35	1.0	
1237	18.38	7.60	4507	26.0	345	0.95	2.0	
1238	17.64	7.62	4355	24.9	370	0.35	3.0	
1239	17.01	7.60	4482	24.8	91	0.29	4.0	
1239	16.96	7.54	5145	26.7	49	0.24	5.0	
1240	17.14	7.44	5952	28.0	42	0.28	6.0	
1241	17.38	7.37	6021	28.5	44	0.31	7.0	
1242	17.55	7.33	6151	28.5	42	0.34	8.0	
Post-Purge				N/A		N/A		
Did Well dewater?	Yes	<input checked="" type="radio"/> No	Total Purge volume (gal):		8.0			

Other Comments: 80% = 637, DTW = 6.13

Sample Info:	
Sample ID: MW-13-20110331	Sample Date and Time: 3-14-11 @ 1250
Selected Analysis: SEE SAW	

Signature: J Kim Date: 3-14-11

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

1Q 2011 GW Event



PACE-SEATTLE

21789/23 #4

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_0_201103	Send Invoice to: David Sowle		
Address:	AnteaGrp proj#:	Address: 11050 White Rock Road, Suite 110		Turn around time (days) 10	
940 S. Hamey Street Seattle WA 98108	Site Address: 449 Hegenberger	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	QC level Required: Standard Special Mark one	
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	Reimbursement project? Non-reimbursement project? <input checked="" type="checkbox"/> <input type="checkbox"/>	Mark one NJ Reduced Deliverable Package?	
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copeltdata@intelligentehs.com		MA MCP Cert? CT RCP Cert? Mark One	
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-8385	CC Hardcopy report to:		Lab Project ID (lab use)	
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to:		Requested Analyses	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER WP GROUND WATER WG WASTE WATER WW FUEL PRODUCT LP SIL. SO SL. OTHER WASTE DM WASTE AR SOL. GAS GS	MATRIX WATER W SURFACE WATER WG WATER OC WQ SLUDGE EC SINKS WH OTHER OF ANIMAL TISSUE TA	MATRIX CODE	SAMPLE TYPE C=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives											Requested Analyses	Comments/Lab Sample I.D.					
										Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	383 2N/10mL	300Sulfide	601 Dilution			801 15THP Diethyl	8260 GC/HMS GPC	8260 GC/HMS GPC	8260 GC/HMS GPC	8260 GC/HMS GPC
1	MW-10_20110331			WG	G	3-14-11	1120	19	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8015 to be Silica Gel treated
2	MW-11_20110331			WG	G		1210	11																			
3	MW-12_20110331			WG	G		1525	11																			
4	MW-12A_20110331			WG	G		1445	11																			
5	MW-13_20110331			WG	G		1250	11																			
6	MW-6_20110331			WG	G		1815	11																			
7	MW-9_20110331			WG	G		1330	11																			
8																											
9																											
10																											
11																											
12																											

Additional Comments/Special Instructions: Fe 2+ MW-6 = 1.0 MW-9 = 1.4 MW-12 = 0.2 Global ID: T0600101476	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions			
	<i>JAN</i>	3/14/11	1936					Y/N	Y/N	Y/N
	Fedex	3/15/11	0907	Jyothi Sway	3/15/11	0907	1.7	(Y/N)	(Y/N)	(Y/N)
							3.3	(Y/N)	(Y/N)	(Y/N)
	SHIPPING METHOD: (mark as appropriate)	SAMPLER NAME AND SIGNATURE						Temp in °C	Samples on ice?	Sample intact?
UPS COURIER <input checked="" type="checkbox"/> FEDEX	JUSTIN FRESS									
US MAIL	<i>JAN</i>									
	SIGNATURE of SAMPLER: <i>JAN</i>									
	DATE Signed: 3/14/11									
	Time: 1936									



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

Page: 2 of 3
 Cooler #: _____ of _____

1Q 2011 GW Event

PACE-SEATTLE

Required Lab Information: Lab Name: Pace-Seattle		Required Project Information: Site ID #: 2705191 Task: WG_Q_201103		Required Invoice Information: Send Invoice to: David Sowle		Turn around time (days) 10	
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#: 449 Hegenberger		Address: 11050 White Rock Road, Suite 110		QC level Required: Standard Special Mark one	
Lab PM: Regina Ste. Marie		City: Oakland State: CA 94621		City/State: Rancho Cordova CA 95670 Phone #: 1-800-477-7411		NJ Reduced Deliverable Package?	
Phone/Fax: P: 206-957-2433 F: 206-767-5063		AG PM Name: Dennis Dettloff		Send EDD to: copelldata@intelligenttechs.com		MA MCP Cert? CT RCP Cert? Mark One	
Lab PM email: Regina.SteMarie@paceclabs.com		Phone/Fax: P: 1-800-477-7411 F: 916-638-8385		CC Hardcopy report to:		Lab Project ID (lab use)	
Applicable Lab Quote #:		AG PM Email: dennis.dettloff@anteagroup.com		CC Hardcopy report to:		Requested Analyses	

ITEM #	SAMPLE ID (A-Z, 0-9 / . -) IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G-GRAB C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.						
								Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other	SM4320 Ferrous Iron	SM109 EDD (S-DW)			SM200 Chloride	SM22 Nitrogen	SM4310 Nitrate	SM4310 Nitrite	SM4310 Ammonia	SM4310 Ammonium
1	MW-10_20110331	WG																							
2	MW-11_20110331	WG																							
3	MW-12_20110331	WG	G	3-14-11	1525	5	Y	X	X															Ferrous Iron =	
4	MW-12A_20110331	WG			1445																				
5	MW-13_20110331	WG			1250																				
6	MW-6_20110331	WG	G	3-14-11	1815	5	Y	X	X																Ferrous Iron =
7	MW-9_20110331	WG	G	3-14-11	1330	5	Y	X	X																Ferrous Iron =

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions				
	<i>J. Kress</i>	3-14-11	1936				Y/N	Y/N	Y/N	Y/N	Y/N
	Fedex	3/15/11	0907	<i>Joythe Swamy</i>	3/15/11	0907	1.7	(Y/N)	(Y/N)	(Y/N)	(Y/N)
	SHIPPING METHOD: (mark as appropriate) SAMPLER NAME AND SIGNATURE						Temp in °C	Samples on ice?	Sample intact?	Trip Blank?	
UPS COURIER <input checked="" type="checkbox"/> FEDEX PRINT Name of SAMPLER: <i>JUSTIN KRESS</i>						3.3					
US MAIL SIGNATURE OF SAMPLER: <i>Jan</i> DATE/TIME: 3/14/11 Time: 1936											



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of 3 of 3
Cooler # of

1Q 2011 GW Event

McC Campbell

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201103	Send Invoice to: David Sowle		
Address: 940 S. Harney Street Seattle WA 98108	Antea Grp proj#	Address: 11050 White Rock Road, Suite 110	Turn around time (days) 10		
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	QC level Required: Standard
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copeltdata@intelligentehs.com	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Special <input type="checkbox"/>
Lab PM email: Regina.SteMarie@pacelabs.com	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to	Mark one		Mark One
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to	MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>

ITEM #	SAMPLE ID (A-Z, 0-9 / .-) IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRAWING WATER WP GROUND WATER WG WASTE WATER WW FRESH PRODUCT LF SOIL SO DIE DL WASTE WA AMBIENT AIR AA SVE AIR AE SOIL GAS CE	MATRIX CODE	SAMPLE TYPE G-CRAB C-COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.					
									Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other	2320B Alkalinity	3512 Total Kjeldahl Nit			2106 Hexachloro	3001 Bromide	3001 Chloride	3001 Fluoride	3001 Sulfate
1	MW-10-20110331		WG																						
2	MW-11-20110331		WG																						
3	MW-12-20110331		WG																						
4	MW-12A-20110331		WG																						
5	MW-13-20110331		WG																						
6	MW-6-20110331		WG	G	3/14/11	181513	N	XXXXX																	
7	MW-0-20110331		WG																						

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions						
	<i>[Signature]</i>		3/14/11	2000	<i>[Signature]</i>		3/14/11	2000	Y/N	Y/N	Y/N				
	<i>[Signature]</i> (Custodian)		3/15/11	0640	<i>[Signature]</i>		3/15/11	0640	Y/N	Y/N	Y/N				
	<i>[Signature]</i> /BTS		3/15/11	0818	<i>[Signature]</i>		3/15/11	0818	Y/N	Y/N	Y/N				
SHIPPING METHOD: (mark as appropriate)										SAMPLER NAME AND SIGNATURE		Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
UPS COURIER FEDEX					PRINT Name of SAMPLER: J. KRESS										
US MAIL					SIGNATURE of SAMPLER: <i>[Signature]</i>										

Quarterly Summary Report, First Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix D

Certified Laboratory Analytical Report and Data Validation Form

Is the Data Set Valid?

(circle)

Yes / No

Preservation Temperature

(if Known): 3.3 °C

Antea™ Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191 / COP-ELT

Project #: I42705191

Date of Validation: 4/13/11 Date of Analysis: 3/14 - 3/28

Sample Date: 3/14/11 Completed By: ETW

Signature: [Signature]

Circle or Highlight Yes / No (below)

Analytical Lab Used and Report # (if any): PACE #: 256952

1. Were the analyses the ones requested?
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?
5. Were Laboratory blanks performed, if so, were they non-detect?
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m³, etc.)
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?
11. Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?

Yes / No
 Yes / No
 Yes / No
 Yes / No
 Yes / No
 Yes / No
 Yes / No
 Yes / No
 Yes / No
 Yes / No

If any answer is no, explain why and what corrective action was taken (use additional sheet(s), as necessary):

4. Methane has been reported from data that was analyzed within method required holding times. The Final CCV was not injected on this day due to instrument malfunction. The sample was re-analyzed outside of hold, with compliant QC, for confirmation. (MW-12, MW-6, and MW-9) Qualifier 1a

9. Matrix spike recovery exceeded QC limits (Nitrogen, NO₂ plus NO₃) Qualifier M3. Surrogate recovery not evaluated against control limits due to sample dilution. Qualifier 54 & 55 - surrogate recovery outside control limits due to Matrix interferences. 54 on MW-6 55 on MW-6

Is the Data Set Valid?

(circle)

Yes / No

Preservation Temperature

(if Known): _____ °C

Antea™ Group Laboratory Data Validation Sheet

Project/Client: _____

Project #: _____

Date of Validation: _____ **Date of Analysis:** _____

Sample Date: _____ **Completed By:** _____

Signature: _____

Circle
or
Highlight

Yes / No

(below)

Analytical Lab Used and Report # (if any): _____

1. Were the analyses the ones requested?
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?
5. Were Laboratory blanks performed, if so, were they non-detect?
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m³, etc.)
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?
11. Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

If any answer is no, explain why and what corrective action was taken (use additional sheet(s), as necessary:

2a - The GRO result for this sample did not match the pattern of the lab standard for gasoline. This is likely due to the presence of MTBE in the sample (MW-13)
B1 - less than 1.0 mg/L DO remained for all dilutions set. The reported value is an estimated greater than value and is calculated for the dilution using the least amount of sample (MW-6 BOD 5day)
E - Analyte concentration exceeded ~~the~~ the calibration range. The reported result is estimated.

March 30, 2011

Dennis Dettloff
Antea USA
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

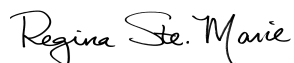
RE: Project: 2705191 449 Hegenberger
Pace Project No.: 256952

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on March 15, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, Antea USA
Jonathon Fillingame, Antea USA
Lia Holden, Antea USA
Dan Keltner, Antea USA
Josh Mahoney, Antea USA
Tony Perini, Antea USA
Nicole Persaud, Antea USA
Don Pinkerton, Antea USA
Doug Umland, Antea USA
Ed Weyrens, Antea USA

REPORT OF LABORATORY ANALYSIS

Page 1 of 36

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CERTIFICATIONS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alaska Certification #: UST-078

Alaska Certification #MN00064

Arizona Certification #: AZ-0014

Arkansas Certification #: 88-0680

California Certification #: 01155CA

EPA Region 8 Certification #: Pace

Florida/NELAP Certification #: E87605

Georgia Certification #: 959

Idaho Certification #: MN00064

Illinois Certification #: 200011

Iowa Certification #: 368

Kansas Certification #: E-10167

Louisiana Certification #: 03086

Louisiana Certification #: LA080009

Maine Certification #: 2007029

Maryland Certification #: 322

Michigan DEQ Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace

Montana Certification #: MT CERT0092

Nebraska Certification #: Pace

Nevada Certification #: MN_00064

New Jersey Certification #: MN-002

New Mexico Certification #: Pace

New York Certification #: 11647

North Carolina Certification #: 530

North Dakota Certification #: R-036

North Dakota Certification #: R-036A

Ohio VAP Certification #: CL101

Oklahoma Certification #: D9921

Oklahoma Certification #: 9507

Oregon Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification

Tennessee Certification #: 02818

Texas Certification #: T104704192

Washington Certification #: C754

Wisconsin Certification #: 999407970

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

REPORT OF LABORATORY ANALYSIS

Page 2 of 36

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SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
256952001	MW-10_20110331	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	1	PASI-S
256952002	MW-11_20110331	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	1	PASI-S
256952003	MW-12_20110331	RSK 175	CJR	1	PASI-M
		EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	15	PASI-S
		EPA 7470	BGA	1	PASI-S
		EPA 5030B/8260	LPM	12	PASI-S
		CA LUFT	LPM	2	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	2	PASI-S
		EPA 353.2	CMS	2	PASI-S
		EPA 410.4	CMS	1	PASI-S
		SM 4500-NO2 B	CMS	1	PASI-S
		256952004	MW-12A_20110331	EPA 8015B	AY1
EPA 6010	BGA			1	PASI-S
EPA 5030B/8260	LPM			11	PASI-S
CA LUFT	LPM			2	PASI-S
EPA 300.0	CMS			1	PASI-S
EPA 353.2	CMS			1	PASI-S
256952005	MW-13_20110331	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
256952006	MW-6_20110331	EPA 353.2	CMS	1	PASI-S
		RSK 175	CJR	1	PASI-M
		EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	15	PASI-S
		EPA 7470	BGA	1	PASI-S
		EPA 5030B/8260	LPM	12	PASI-S
		CA LUFT	LPM	2	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	2	PASI-S
		EPA 353.2	CMS	2	PASI-S
		EPA 410.4	CMS	1	PASI-S
		SM 4500-NO2 B	CMS	1	PASI-S
256952007	MW-9_20110331	RSK 175	CJR	1	PASI-M
		EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	15	PASI-S
		EPA 7470	BGA	1	PASI-S
		EPA 5030B/8260	LPM	12	PASI-S
		CA LUFT	LPM	2	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 5210B	CMS	1	PASI-S
		EPA 300.0	CMS	2	PASI-S
		EPA 353.2	CMS	2	PASI-S
		EPA 410.4	CMS	1	PASI-S
		SM 4500-NO2 B	CMS	1	PASI-S

REPORT OF LABORATORY ANALYSIS

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HITS ONLY

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
256952001	MW-10_20110331					
EPA 8015B	TPH-DRO (C10-C24) SG	63.3	ug/L	50.0	03/18/11 07:50	
EPA 6010	Iron	2620	ug/L	100	03/24/11 18:22	
EPA 5030B/8260	Benzene	1.1	ug/L	0.50	03/21/11 23:35	
EPA 300.0	Sulfate	68600	ug/L	20000	03/22/11 21:08	
EPA 353.2	Nitrogen, NO2 plus NO3	2350	ug/L	50.0	03/28/11 13:07	
256952002	MW-11_20110331					
EPA 8015B	TPH-DRO (C10-C24) SG	67.8	ug/L	50.0	03/18/11 09:01	
EPA 6010	Iron	756	ug/L	100	03/24/11 18:31	
EPA 5030B/8260	Methyl-tert-butyl ether	44.0	ug/L	2.5	03/23/11 07:16	
EPA 300.0	Sulfate	59900	ug/L	10000	03/22/11 22:02	
256952003	MW-12_20110331					
RSK 175	Methane	114	ug/L	10.0	03/18/11 14:08	1n
EPA 8015B	TPH-DRO (C10-C24) SG	283	ug/L	50.0	03/18/11 09:24	
EPA 6010	Iron	793	ug/L	100	03/24/11 18:34	
EPA 6010	Manganese, Dissolved	12400	ug/L	15.0	03/25/11 17:32	
EPA 6010	Nickel, Dissolved	151	ug/L	40.0	03/25/11 17:32	
EPA 5030B/8260	Benzene	287	ug/L	0.50	03/22/11 04:50	
EPA 5030B/8260	tert-Butyl Alcohol	69.6	ug/L	25.0	03/23/11 07:35	
EPA 5030B/8260	Ethylbenzene	49.1	ug/L	0.50	03/22/11 04:50	
EPA 5030B/8260	Methyl-tert-butyl ether	1020	ug/L	2.5	03/23/11 07:35	
EPA 5030B/8260	Toluene	80.9	ug/L	0.50	03/22/11 04:50	
EPA 5030B/8260	Xylene (Total)	243	ug/L	1.5	03/22/11 04:50	
CA LUFT	TPH-Gasoline (C05-C12)	2420	ug/L	50.0	03/22/11 04:50	
SM 3500-Fe B#4	Iron, Ferric	593	ug/L	100	03/25/11 15:15	
SM 3500-Fe B#4	Iron, Ferrous	200	ug/L	100	03/14/11 15:25	
EPA 300.0	Chloride	8240000	ug/L	1000000	03/25/11 13:01	
EPA 300.0	Sulfate	2500000	ug/L	1000000	03/25/11 13:01	
EPA 353.2	Nitrogen, NO2 plus NO3	54.4	ug/L	50.0	03/28/11 13:11	
EPA 410.4	Chemical Oxygen Demand	80100	ug/L	10000	03/17/11 14:30	
SM 4500-NO2 B	Nitrite as N	60.6	ug/L	10.0	03/16/11 11:54	
256952004	MW-12A_20110331					
EPA 8015B	TPH-DRO (C10-C24) SG	61.5	ug/L	50.0	03/18/11 09:48	
EPA 6010	Iron	523	ug/L	100	03/24/11 18:43	
EPA 300.0	Sulfate	81000	ug/L	20000	03/22/11 22:39	
EPA 353.2	Nitrogen, NO2 plus NO3	4790	ug/L	250	03/28/11 13:46	
256952005	MW-13_20110331					
EPA 8015B	TPH-DRO (C10-C24) SG	162	ug/L	50.0	03/18/11 10:11	
EPA 6010	Iron	44600	ug/L	100	03/24/11 18:46	
EPA 5030B/8260	tert-Butyl Alcohol	125	ug/L	5.0	03/23/11 13:53	
EPA 5030B/8260	Methyl-tert-butyl ether	241	ug/L	2.5	03/28/11 14:33	
CA LUFT	TPH-Gasoline (C05-C12)	127	ug/L	50.0	03/23/11 13:53	2n
EPA 300.0	Sulfate	375000	ug/L	100000	03/22/11 22:57	
256952006	MW-6_20110331					
RSK 175	Methane	474	ug/L	10.0	03/18/11 14:33	1n

REPORT OF LABORATORY ANALYSIS

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Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
256952006	MW-6_20110331					
EPA 8015B	TPH-DRO (C10-C24) SG	93000	ug/L	1000	03/21/11 20:10	
EPA 6010	Iron	4900	ug/L	100	03/24/11 18:49	
EPA 6010	Arsenic, Dissolved	22.7	ug/L	20.0	03/25/11 17:41	
EPA 6010	Barium, Dissolved	216	ug/L	100	03/25/11 17:41	
EPA 6010	Lead, Dissolved	26.8	ug/L	10.0	03/25/11 17:41	
EPA 6010	Manganese, Dissolved	1270	ug/L	15.0	03/25/11 17:41	
EPA 5030B/8260	Acetone	18.4	ug/L	5.0	03/22/11 21:41	
EPA 5030B/8260	Benzene	912	ug/L	25.0	03/22/11 18:26	
EPA 5030B/8260	tert-Butyl Alcohol	134	ug/L	5.0	03/22/11 21:41	
EPA 5030B/8260	Ethylbenzene	728	ug/L	25.0	03/22/11 18:26	
EPA 5030B/8260	Methyl-tert-butyl ether	16.3	ug/L	0.50	03/22/11 21:41	
EPA 5030B/8260	Toluene	338	ug/L	25.0	03/22/11 18:26	
EPA 5030B/8260	Xylene (Total)	3670	ug/L	75.0	03/22/11 18:26	
CA LUFT	TPH-Gasoline (C05-C12)	44600	ug/L	2500	03/22/11 04:33	
SM 3500-Fe B#4	Iron, Ferric	3900	ug/L	100	03/25/11 15:15	
SM 3500-Fe B#4	Iron, Ferrous	1000	ug/L	100	03/14/11 18:15	
SM 5210B	BOD, 5 day	32200	ug/L	2000	03/21/11 15:00	B1
EPA 300.0	Chloride	204000	ug/L	20000	03/22/11 23:15	
EPA 300.0	Sulfate	35400	ug/L	20000	03/22/11 23:15	
EPA 353.2	Nitrogen, Nitrate	50.1	ug/L	50.0	03/28/11 13:16	
EPA 353.2	Nitrogen, NO2 plus NO3	54.2	ug/L	50.0	03/28/11 13:16	
EPA 410.4	Chemical Oxygen Demand	173000	ug/L	10000	03/17/11 14:30	
256952007	MW-9_20110331					
RSK 175	Methane	419	ug/L	10.0	03/18/11 14:59	1n
EPA 6010	Iron	1560	ug/L	100	03/24/11 18:52	
EPA 6010	Manganese, Dissolved	148	ug/L	15.0	03/25/11 17:44	
SM 3500-Fe B#4	Iron, Ferric	157	ug/L	100	03/25/11 15:15	
SM 3500-Fe B#4	Iron, Ferrous	1400	ug/L	100	03/14/11 13:30	
SM 5210B	BOD, 5 day	7160	ug/L	2000	03/21/11 15:00	
EPA 300.0	Chloride	34700	ug/L	5000	03/22/11 23:34	
EPA 300.0	Sulfate	8980	ug/L	5000	03/22/11 23:34	
EPA 410.4	Chemical Oxygen Demand	11500	ug/L	5000	03/17/11 14:30	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-10_20110331	Lab ID: 256952001	Collected: 03/14/11 11:20	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG								
Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	63.3 ug/L		50.0	1	03/17/11 10:15	03/18/11 07:50		
o-Terphenyl (S) SG	84 %		51-147	1	03/17/11 10:15	03/18/11 07:50	84-15-1	
n-Octacosane (S) SG	97 %		50-150	1	03/17/11 10:15	03/18/11 07:50	630-02-4	
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	2620 ug/L		100	1	03/23/11 08:27	03/24/11 18:22	7439-89-6	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	1.1 ug/L		0.50	1		03/21/11 23:35	71-43-2	
tert-Butyl Alcohol	ND ug/L		5.0	1		03/21/11 23:35	75-65-0	
Ethanol	ND ug/L		250	1		03/21/11 23:35	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		03/21/11 23:35	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		03/21/11 23:35	1634-04-4	M1
Toluene	ND ug/L		0.50	1		03/21/11 23:35	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		03/21/11 23:35	1330-20-7	
4-Bromofluorobenzene (S)	107 %		80-120	1		03/21/11 23:35	460-00-4	
Dibromofluoromethane (S)	113 %		80-122	1		03/21/11 23:35	1868-53-7	
1,2-Dichloroethane-d4 (S)	108 %		80-124	1		03/21/11 23:35	17060-07-0	
Toluene-d8 (S)	109 %		80-123	1		03/21/11 23:35	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		03/21/11 23:35		
4-Bromofluorobenzene (S)	107 %		82-116	1		03/21/11 23:35	460-00-4	
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0								
Sulfate	68600 ug/L		20000	20		03/22/11 21:08	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.								
Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	2350 ug/L		50.0	1		03/28/11 13:07		

Sample: MW-11_20110331	Lab ID: 256952002	Collected: 03/14/11 12:10	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG								
Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	67.8 ug/L		50.0	1	03/17/11 10:15	03/18/11 09:01		
o-Terphenyl (S) SG	78 %		51-147	1	03/17/11 10:15	03/18/11 09:01	84-15-1	
n-Octacosane (S) SG	94 %		50-150	1	03/17/11 10:15	03/18/11 09:01	630-02-4	
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	756 ug/L		100	1	03/23/11 08:27	03/24/11 18:31	7439-89-6	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		03/21/11 23:52	71-43-2	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-11_20110331	Lab ID: 256952002	Collected: 03/14/11 12:10	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
tert-Butyl Alcohol	ND ug/L		5.0	1		03/21/11 23:52	75-65-0	
Ethanol	ND ug/L		250	1		03/21/11 23:52	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		03/21/11 23:52	100-41-4	
Methyl-tert-butyl ether	44.0 ug/L		2.5	5		03/23/11 07:16	1634-04-4	
Toluene	ND ug/L		0.50	1		03/21/11 23:52	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		03/21/11 23:52	1330-20-7	
4-Bromofluorobenzene (S)	107 %		80-120	1		03/21/11 23:52	460-00-4	
Dibromofluoromethane (S)	112 %		80-122	1		03/21/11 23:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	106 %		80-124	1		03/21/11 23:52	17060-07-0	
Toluene-d8 (S)	109 %		80-123	1		03/21/11 23:52	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		03/21/11 23:52		
4-Bromofluorobenzene (S)	107 %		82-116	1		03/21/11 23:52	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	59900 ug/L		10000	10		03/22/11 22:02	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		03/28/11 13:10		

Sample: MW-12_20110331	Lab ID: 256952003	Collected: 03/14/11 15:25	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175						
Methane	114 ug/L		10.0	1		03/18/11 14:08	74-82-8	1n
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	283 ug/L		50.0	1	03/17/11 10:15	03/18/11 09:24		
o-Terphenyl (S) SG	83 %		51-147	1	03/17/11 10:15	03/18/11 09:24	84-15-1	
n-Octacosane (S) SG	96 %		50-150	1	03/17/11 10:15	03/18/11 09:24	630-02-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	793 ug/L		100	1	03/23/11 08:27	03/24/11 18:34	7439-89-6	
6010 MET ICP, Dissolved		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Antimony, Dissolved	ND ug/L		60.0	1	03/24/11 11:32	03/25/11 17:32	7440-36-0	
Arsenic, Dissolved	ND ug/L		20.0	1	03/24/11 11:32	03/25/11 17:32	7440-38-2	
Barium, Dissolved	ND ug/L		100	1	03/24/11 11:32	03/25/11 17:32	7440-39-3	
Beryllium, Dissolved	ND ug/L		5.0	1	03/24/11 11:32	03/25/11 17:32	7440-41-7	
Cadmium, Dissolved	ND ug/L		5.0	1	03/24/11 11:32	03/25/11 17:32	7440-43-9	
Cobalt, Dissolved	ND ug/L		50.0	1	03/24/11 11:32	03/25/11 17:32	7440-48-4	
Lead, Dissolved	ND ug/L		10.0	1	03/24/11 11:32	03/25/11 17:32	7439-92-1	
Manganese, Dissolved	12400 ug/L		15.0	1	03/24/11 11:32	03/25/11 17:32	7439-96-5	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-12_20110331	Lab ID: 256952003	Collected: 03/14/11 15:25	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Molybdenum, Dissolved	ND ug/L		20.0	1	03/24/11 11:32	03/25/11 17:32	7439-98-7	
Nickel, Dissolved	151 ug/L		40.0	1	03/24/11 11:32	03/25/11 17:32	7440-02-0	
Selenium, Dissolved	ND ug/L		10.0	1	03/24/11 11:32	03/25/11 17:32	7782-49-2	
Silver, Dissolved	ND ug/L		10.0	1	03/24/11 11:32	03/25/11 17:32	7440-22-4	
Thallium, Dissolved	ND ug/L		20.0	1	03/24/11 11:32	03/25/11 17:32	7440-28-0	
Vanadium, Dissolved	ND ug/L		50.0	1	03/24/11 11:32	03/25/11 17:32	7440-62-2	
Zinc, Dissolved	ND ug/L		40.0	1	03/24/11 11:32	03/25/11 17:32	7440-66-6	
7470 Mercury, Dissolved Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury, Dissolved	ND ug/L		0.20	1	03/28/11 10:40	03/28/11 15:24	7439-97-6	
8260 MSV Analytical Method: EPA 5030B/8260								
Acetone	ND ug/L		5.0	1		03/22/11 04:50	67-64-1	
Benzene	287 ug/L		0.50	1		03/22/11 04:50	71-43-2	
tert-Butyl Alcohol	69.6 ug/L		25.0	5		03/23/11 07:35	75-65-0	
Ethanol	ND ug/L		250	1		03/22/11 04:50	64-17-5	
Ethylbenzene	49.1 ug/L		0.50	1		03/22/11 04:50	100-41-4	
Methyl-tert-butyl ether	1020 ug/L		2.5	5		03/23/11 07:35	1634-04-4	
Toluene	80.9 ug/L		0.50	1		03/22/11 04:50	108-88-3	
Xylene (Total)	243 ug/L		1.5	1		03/22/11 04:50	1330-20-7	
4-Bromofluorobenzene (S)	108 %		80-120	1		03/22/11 04:50	460-00-4	
Dibromofluoromethane (S)	110 %		80-122	1		03/22/11 04:50	1868-53-7	
1,2-Dichloroethane-d4 (S)	115 %		80-124	1		03/22/11 04:50	17060-07-0	
Toluene-d8 (S)	108 %		80-123	1		03/22/11 04:50	2037-26-5	
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	2420 ug/L		50.0	1		03/22/11 04:50		
4-Bromofluorobenzene (S)	108 %		82-116	1		03/22/11 04:50	460-00-4	
Iron, Ferric (Calculation) Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	593 ug/L		100	1		03/25/11 15:15	7439-89-6	
Iron, Ferrous Analytical Method: SM 3500-Fe B#4								
Iron, Ferrous	200 ug/L		100	1		03/14/11 15:25		
5210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	ND ug/L		2000	1	03/16/11 13:00	03/21/11 15:00		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0								
Chloride	8240000 ug/L		1000000	1000		03/25/11 13:01	16887-00-6	
Sulfate	2500000 ug/L		1000000	1000		03/25/11 13:01	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		03/28/11 13:11		
Nitrogen, NO2 plus NO3	54.4 ug/L		50.0	1		03/28/11 13:11		

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-12_20110331		Lab ID: 256952003	Collected: 03/14/11 15:25	Received: 03/15/11 09:07	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
410.4 COD		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	80100	ug/L	10000	1		03/17/11 14:30		
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	60.6	ug/L	10.0	1		03/16/11 11:54	14797-65-0	
Sample: MW-12A_20110331		Lab ID: 256952004	Collected: 03/14/11 14:25	Received: 03/15/11 09:07	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	61.5	ug/L	50.0	1	03/17/11 10:15	03/18/11 09:48		
o-Terphenyl (S) SG	74	%	51-147	1	03/17/11 10:15	03/18/11 09:48	84-15-1	
n-Octacosane (S) SG	86	%	50-150	1	03/17/11 10:15	03/18/11 09:48	630-02-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	523	ug/L	100	1	03/23/11 08:27	03/24/11 18:43	7439-89-6	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND	ug/L	0.50	1		03/22/11 00:09	71-43-2	
tert-Butyl Alcohol	ND	ug/L	5.0	1		03/22/11 00:09	75-65-0	
Ethanol	ND	ug/L	250	1		03/22/11 00:09	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		03/22/11 00:09	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		03/22/11 00:09	1634-04-4	
Toluene	ND	ug/L	0.50	1		03/22/11 00:09	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		03/22/11 00:09	1330-20-7	
4-Bromofluorobenzene (S)	107	%	80-120	1		03/22/11 00:09	460-00-4	
Dibromofluoromethane (S)	113	%	80-122	1		03/22/11 00:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	80-124	1		03/22/11 00:09	17060-07-0	
Toluene-d8 (S)	109	%	80-123	1		03/22/11 00:09	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		03/22/11 00:09		
4-Bromofluorobenzene (S)	107	%	82-116	1		03/22/11 00:09	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	81000	ug/L	20000	20		03/22/11 22:39	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, NO2 plus NO3	4790	ug/L	250	5		03/28/11 13:46		

ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-13_20110331		Lab ID: 256952005	Collected: 03/14/11 12:50	Received: 03/15/11 09:07	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	162 ug/L		50.0	1	03/17/11 10:15	03/18/11 10:11		
o-Terphenyl (S) SG	76 %		51-147	1	03/17/11 10:15	03/18/11 10:11	84-15-1	
n-Octacosane (S) SG	87 %		50-150	1	03/17/11 10:15	03/18/11 10:11	630-02-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	44600 ug/L		100	1	03/23/11 08:27	03/24/11 18:46	7439-89-6	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		03/23/11 13:53	71-43-2	
tert-Butyl Alcohol	125 ug/L		5.0	1		03/23/11 13:53	75-65-0	
Ethanol	ND ug/L		250	1		03/23/11 13:53	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		03/23/11 13:53	100-41-4	
Methyl-tert-butyl ether	241 ug/L		2.5	5		03/28/11 14:33	1634-04-4	
Toluene	ND ug/L		0.50	1		03/23/11 13:53	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		03/23/11 13:53	1330-20-7	
4-Bromofluorobenzene (S)	111 %		80-120	1		03/23/11 13:53	460-00-4	
Dibromofluoromethane (S)	93 %		80-122	1		03/23/11 13:53	1868-53-7	
1,2-Dichloroethane-d4 (S)	108 %		80-124	1		03/23/11 13:53	17060-07-0	
Toluene-d8 (S)	97 %		80-123	1		03/23/11 13:53	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	127 ug/L		50.0	1		03/23/11 13:53		2n
4-Bromofluorobenzene (S)	111 %		82-116	1		03/23/11 13:53	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	375000 ug/L		100000	100		03/22/11 22:57	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		03/28/11 13:14		

Sample: MW-6_20110331		Lab ID: 256952006	Collected: 03/14/11 18:15	Received: 03/15/11 09:07	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175						
Methane	474 ug/L		10.0	1		03/18/11 14:33	74-82-8	1n
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	93000 ug/L		1000	20	03/17/11 10:15	03/21/11 20:10		
o-Terphenyl (S) SG	0 %		51-147	20	03/17/11 10:15	03/21/11 20:10	84-15-1	S4
n-Octacosane (S) SG	0 %		50-150	20	03/17/11 10:15	03/21/11 20:10	630-02-4	S4
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	4900 ug/L		100	1	03/23/11 08:27	03/24/11 18:49	7439-89-6	

ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-6_20110331	Lab ID: 256952006	Collected: 03/14/11 18:15	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony, Dissolved	ND ug/L		60.0	1	03/24/11 11:32	03/25/11 17:41	7440-36-0	
Arsenic, Dissolved	22.7 ug/L		20.0	1	03/24/11 11:32	03/25/11 17:41	7440-38-2	
Barium, Dissolved	216 ug/L		100	1	03/24/11 11:32	03/25/11 17:41	7440-39-3	
Beryllium, Dissolved	ND ug/L		5.0	1	03/24/11 11:32	03/25/11 17:41	7440-41-7	
Cadmium, Dissolved	ND ug/L		5.0	1	03/24/11 11:32	03/25/11 17:41	7440-43-9	
Cobalt, Dissolved	ND ug/L		50.0	1	03/24/11 11:32	03/25/11 17:41	7440-48-4	
Lead, Dissolved	26.8 ug/L		10.0	1	03/24/11 11:32	03/25/11 17:41	7439-92-1	
Manganese, Dissolved	1270 ug/L		15.0	1	03/24/11 11:32	03/25/11 17:41	7439-96-5	
Molybdenum, Dissolved	ND ug/L		20.0	1	03/24/11 11:32	03/25/11 17:41	7439-98-7	
Nickel, Dissolved	ND ug/L		40.0	1	03/24/11 11:32	03/25/11 17:41	7440-02-0	
Selenium, Dissolved	ND ug/L		10.0	1	03/24/11 11:32	03/25/11 17:41	7782-49-2	
Silver, Dissolved	ND ug/L		10.0	1	03/24/11 11:32	03/25/11 17:41	7440-22-4	
Thallium, Dissolved	ND ug/L		20.0	1	03/24/11 11:32	03/25/11 17:41	7440-28-0	
Vanadium, Dissolved	ND ug/L		50.0	1	03/24/11 11:32	03/25/11 17:41	7440-62-2	
Zinc, Dissolved	ND ug/L		40.0	1	03/24/11 11:32	03/25/11 17:41	7440-66-6	
7470 Mercury, Dissolved								
Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury, Dissolved	ND ug/L		0.20	1	03/28/11 10:40	03/28/11 15:31	7439-97-6	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Acetone	18.4 ug/L		5.0	1		03/22/11 21:41	67-64-1	
Benzene	912 ug/L		25.0	50		03/22/11 18:26	71-43-2	
tert-Butyl Alcohol	134 ug/L		5.0	1		03/22/11 21:41	75-65-0	
Ethanol	ND ug/L		250	1		03/22/11 21:41	64-17-5	
Ethylbenzene	728 ug/L		25.0	50		03/22/11 18:26	100-41-4	
Methyl-tert-butyl ether	16.3 ug/L		0.50	1		03/22/11 21:41	1634-04-4	
Toluene	338 ug/L		25.0	50		03/22/11 18:26	108-88-3	
Xylene (Total)	3670 ug/L		75.0	50		03/22/11 18:26	1330-20-7	
4-Bromofluorobenzene (S)	125 %		80-120	1		03/22/11 21:41	460-00-4	S5
Dibromofluoromethane (S)	92 %		80-122	1		03/22/11 21:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	106 %		80-124	1		03/22/11 21:41	17060-07-0	
Toluene-d8 (S)	98 %		80-123	1		03/22/11 21:41	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	44600 ug/L		2500	50		03/22/11 04:33		
4-Bromofluorobenzene (S)	110 %		82-116	50		03/22/11 04:33	460-00-4	
Iron, Ferric (Calculation)								
Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	3900 ug/L		100	1		03/25/11 15:15	7439-89-6	
Iron, Ferrous								
Analytical Method: SM 3500-Fe B#4								
Iron, Ferrous	1000 ug/L		100	1		03/14/11 18:15		
5210B BOD, 5 day								
Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	32200 ug/L		2000	1	03/16/11 13:00	03/21/11 15:00		B1

ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-6_20110331		Lab ID: 256952006	Collected: 03/14/11 18:15	Received: 03/15/11 09:07	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Chloride	204000	ug/L	20000	20		03/22/11 23:15	16887-00-6	
Sulfate	35400	ug/L	20000	20		03/22/11 23:15	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	50.1	ug/L	50.0	1		03/28/11 13:16		
Nitrogen, NO2 plus NO3	54.2	ug/L	50.0	1		03/28/11 13:16		
410.4 COD		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	173000	ug/L	10000	1		03/17/11 14:30		
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	ND	ug/L	10.0	1		03/16/11 11:54	14797-65-0	

Sample: MW-9_20110331		Lab ID: 256952007	Collected: 03/14/11 13:30	Received: 03/15/11 09:07	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace		Analytical Method: RSK 175						
Methane	419	ug/L	10.0	1		03/18/11 14:59	74-82-8	1n
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND	ug/L	50.0	1	03/17/11 10:15	03/18/11 11:45		
o-Terphenyl (S) SG	74 %		51-147	1	03/17/11 10:15	03/18/11 11:45	84-15-1	
n-Octacosane (S) SG	87 %		50-150	1	03/17/11 10:15	03/18/11 11:45	630-02-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	1560	ug/L	100	1	03/23/11 08:27	03/24/11 18:52	7439-89-6	
6010 MET ICP, Dissolved		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Antimony, Dissolved	ND	ug/L	60.0	1	03/24/11 11:32	03/25/11 17:44	7440-36-0	
Arsenic, Dissolved	ND	ug/L	20.0	1	03/24/11 11:32	03/25/11 17:44	7440-38-2	
Barium, Dissolved	ND	ug/L	100	1	03/24/11 11:32	03/25/11 17:44	7440-39-3	
Beryllium, Dissolved	ND	ug/L	5.0	1	03/24/11 11:32	03/25/11 17:44	7440-41-7	
Cadmium, Dissolved	ND	ug/L	5.0	1	03/24/11 11:32	03/25/11 17:44	7440-43-9	
Cobalt, Dissolved	ND	ug/L	50.0	1	03/24/11 11:32	03/25/11 17:44	7440-48-4	
Lead, Dissolved	ND	ug/L	10.0	1	03/24/11 11:32	03/25/11 17:44	7439-92-1	
Manganese, Dissolved	148	ug/L	15.0	1	03/24/11 11:32	03/25/11 17:44	7439-96-5	
Molybdenum, Dissolved	ND	ug/L	20.0	1	03/24/11 11:32	03/25/11 17:44	7439-98-7	
Nickel, Dissolved	ND	ug/L	40.0	1	03/24/11 11:32	03/25/11 17:44	7440-02-0	
Selenium, Dissolved	ND	ug/L	10.0	1	03/24/11 11:32	03/25/11 17:44	7782-49-2	
Silver, Dissolved	ND	ug/L	10.0	1	03/24/11 11:32	03/25/11 17:44	7440-22-4	
Thallium, Dissolved	ND	ug/L	20.0	1	03/24/11 11:32	03/25/11 17:44	7440-28-0	
Vanadium, Dissolved	ND	ug/L	50.0	1	03/24/11 11:32	03/25/11 17:44	7440-62-2	
Zinc, Dissolved	ND	ug/L	40.0	1	03/24/11 11:32	03/25/11 17:44	7440-66-6	

ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Sample: MW-9_20110331	Lab ID: 256952007	Collected: 03/14/11 13:30	Received: 03/15/11 09:07	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
7470 Mercury, Dissolved								
Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury, Dissolved	ND ug/L		0.20	1	03/28/11 10:40	03/28/11 15:33	7439-97-6	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Acetone	ND ug/L		5.0	1		03/22/11 00:26	67-64-1	
Benzene	ND ug/L		0.50	1		03/22/11 00:26	71-43-2	
tert-Butyl Alcohol	ND ug/L		5.0	1		03/22/11 00:26	75-65-0	
Ethanol	ND ug/L		250	1		03/22/11 00:26	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		03/22/11 00:26	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		03/22/11 00:26	1634-04-4	
Toluene	ND ug/L		0.50	1		03/22/11 00:26	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		03/22/11 00:26	1330-20-7	
4-Bromofluorobenzene (S)	108 %		80-120	1		03/22/11 00:26	460-00-4	
Dibromofluoromethane (S)	113 %		80-122	1		03/22/11 00:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	107 %		80-124	1		03/22/11 00:26	17060-07-0	
Toluene-d8 (S)	109 %		80-123	1		03/22/11 00:26	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		03/22/11 00:26		
4-Bromofluorobenzene (S)	108 %		82-116	1		03/22/11 00:26	460-00-4	
Iron, Ferric (Calculation)								
Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	157 ug/L		100	1		03/25/11 15:15	7439-89-6	
Iron, Ferrous								
Analytical Method: SM 3500-Fe B#4								
Iron, Ferrous	1400 ug/L		100	1		03/14/11 13:30		
5210B BOD, 5 day								
Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	7160 ug/L		2000	1	03/16/11 13:00	03/21/11 15:00		
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0								
Chloride	34700 ug/L		5000	5		03/22/11 23:34	16887-00-6	
Sulfate	8980 ug/L		5000	5		03/22/11 23:34	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.								
Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		03/28/11 13:22		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		03/28/11 13:22		
410.4 COD								
Analytical Method: EPA 410.4								
Chemical Oxygen Demand	11500 ug/L		5000	1		03/17/11 14:30		
SM4500NO2-B, Nitrite, unpres								
Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND ug/L		10.0	1		03/16/11 11:54	14797-65-0	

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: AIR/12009

Analysis Method: RSK 175

QC Batch Method: RSK 175

Analysis Description: RSK 175 AIR HEADSPACE

Associated Lab Samples: 256952003, 256952006, 256952007

METHOD BLANK: 950885

Matrix: Water

Associated Lab Samples: 256952003, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	03/18/11 13:42	

LABORATORY CONTROL SAMPLE: 950886

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	60.7	58.0	96	70-130	1n

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: OEXT/3434 Analysis Method: EPA 8015B
 QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CA DRO Silica Gel
 Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

METHOD BLANK: 62830 Matrix: Water
 Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	50.0	03/18/11 07:04	
n-Octacosane (S) SG	%	111	50-150	03/18/11 07:04	
o-Terphenyl (S) SG	%	91	51-147	03/18/11 07:04	

LABORATORY CONTROL SAMPLE: 62831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	3120	2300	73	51-147	
n-Octacosane (S) SG	%			95	50-150	
o-Terphenyl (S) SG	%			122	51-147	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 62832 62833

Parameter	Units	256952001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-DRO (C10-C24) SG	ug/L	63.3	3120	3120	2120	2330	66	73	51-147	10	
n-Octacosane (S) SG	%						83	84	50-150		
o-Terphenyl (S) SG	%						106	110	51-147		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: MPRP/2109 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET
 Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

METHOD BLANK: 63576 Matrix: Water
 Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	03/24/11 18:16	

LABORATORY CONTROL SAMPLE: 63577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9800	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63578 63579

Parameter	Units	256952001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron	ug/L	2620	10000	10000	12700	12400	101	98	75-125	2	

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: MPRP/2113 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
 Associated Lab Samples: 256952003, 256952006, 256952007

METHOD BLANK: 63835 Matrix: Water

Associated Lab Samples: 256952003, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	ug/L	ND	60.0	03/25/11 17:26	
Arsenic, Dissolved	ug/L	ND	20.0	03/25/11 17:26	
Barium, Dissolved	ug/L	ND	100	03/25/11 17:26	
Beryllium, Dissolved	ug/L	ND	5.0	03/25/11 17:26	
Cadmium, Dissolved	ug/L	ND	5.0	03/25/11 17:26	
Cobalt, Dissolved	ug/L	ND	50.0	03/25/11 17:26	
Lead, Dissolved	ug/L	ND	10.0	03/25/11 17:26	
Manganese, Dissolved	ug/L	ND	15.0	03/25/11 17:26	
Molybdenum, Dissolved	ug/L	ND	20.0	03/25/11 17:26	
Nickel, Dissolved	ug/L	ND	40.0	03/25/11 17:26	
Selenium, Dissolved	ug/L	ND	10.0	03/25/11 17:26	
Silver, Dissolved	ug/L	ND	10.0	03/25/11 17:26	
Thallium, Dissolved	ug/L	ND	20.0	03/25/11 17:26	
Vanadium, Dissolved	ug/L	ND	50.0	03/25/11 17:26	
Zinc, Dissolved	ug/L	ND	40.0	03/25/11 17:26	

LABORATORY CONTROL SAMPLE: 63836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	ug/L	500	489	98	80-120	
Arsenic, Dissolved	ug/L	500	488	98	80-120	
Barium, Dissolved	ug/L	500	534	107	80-120	
Beryllium, Dissolved	ug/L	500	554	111	80-120	
Cadmium, Dissolved	ug/L	500	460	92	80-120	
Cobalt, Dissolved	ug/L	500	466	93	80-120	
Lead, Dissolved	ug/L	500	490	98	80-120	
Manganese, Dissolved	ug/L	500	509	102	80-120	
Molybdenum, Dissolved	ug/L	500	512	102	80-120	
Nickel, Dissolved	ug/L	500	486	97	80-120	
Selenium, Dissolved	ug/L	500	432	86	80-120	
Silver, Dissolved	ug/L	250	264	106	80-120	
Thallium, Dissolved	ug/L	500	470	94	80-120	
Vanadium, Dissolved	ug/L	500	523	105	80-120	
Zinc, Dissolved	ug/L	500	486	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63837 63838

Parameter	Units	256952003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.							
Antimony, Dissolved	ug/L	ND	500	500	534	520	107	104	75-125	3	

Date: 03/30/2011 03:12 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Parameter	Units	63837		63838		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		256952003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Arsenic, Dissolved	ug/L	ND	500	500	530	519	106	104	75-125	2		
Barium, Dissolved	ug/L	ND	500	500	597	562	111	104	75-125	6		
Beryllium, Dissolved	ug/L	ND	500	500	534	522	107	104	75-125	2		
Cadmium, Dissolved	ug/L	ND	500	500	520	511	104	102	75-125	2		
Cobalt, Dissolved	ug/L	ND	500	500	445	436	86	85	75-125	2		
Lead, Dissolved	ug/L	ND	500	500	450	446	90	89	75-125	.9		
Manganese, Dissolved	ug/L	12400	500	500	13200	12500	144	18	75-125	5 M1		
Molybdenum, Dissolved	ug/L	ND	500	500	510	504	101	100	75-125	1		
Nickel, Dissolved	ug/L	151	500	500	594	581	88	86	75-125	2		
Selenium, Dissolved	ug/L	ND	500	500	488	478	97	95	75-125	2		
Silver, Dissolved	ug/L	ND	250	250	316	307	126	122	75-125	3 M1		
Thallium, Dissolved	ug/L	ND	500	500	435	432	85	84	75-125	.8		
Vanadium, Dissolved	ug/L	ND	500	500	496	495	99	99	75-125	.2		
Zinc, Dissolved	ug/L	ND	500	500	445	440	87	86	75-125	1		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: MERP/1390 Analysis Method: EPA 7470
 QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury ,Dissolved
 Associated Lab Samples: 256952003, 256952006, 256952007

METHOD BLANK: 64251 Matrix: Water

Associated Lab Samples: 256952003, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	03/28/11 15:20	

LABORATORY CONTROL SAMPLE: 64252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64253 64254

Parameter	Units	256952003		64254		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.					
Mercury, Dissolved	ug/L	ND	5	5	2.3	2.3	46	45	85-115	.8 M1

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 256952

QC Batch: MSV/4054 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952007

METHOD BLANK: 63294 Matrix: Water
Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	5.0	03/21/11 22:43	
Benzene	ug/L	ND	0.50	03/21/11 22:43	
Ethanol	ug/L	ND	250	03/21/11 22:43	
Ethylbenzene	ug/L	ND	0.50	03/21/11 22:43	
Methyl-tert-butyl ether	ug/L	ND	0.50	03/21/11 22:43	
tert-Butyl Alcohol	ug/L	ND	5.0	03/21/11 22:43	
Toluene	ug/L	ND	0.50	03/21/11 22:43	
Xylene (Total)	ug/L	ND	1.5	03/21/11 22:43	
1,2-Dichloroethane-d4 (S)	%	105	80-124	03/21/11 22:43	
4-Bromofluorobenzene (S)	%	107	80-120	03/21/11 22:43	
Dibromofluoromethane (S)	%	111	80-122	03/21/11 22:43	
Toluene-d8 (S)	%	109	80-123	03/21/11 22:43	

LABORATORY CONTROL SAMPLE: 63295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	40	38.1	95	30-180	
Benzene	ug/L	20	21.7	108	76-127	
Ethanol	ug/L	400	311	78	31-182	
Ethylbenzene	ug/L	20	21.1	106	72-125	
Methyl-tert-butyl ether	ug/L	20	26.1	130	58-145	
tert-Butyl Alcohol	ug/L	100	132	132	31-166	
Toluene	ug/L	20	20.5	103	69-125	
Xylene (Total)	ug/L	60	64.0	107	74-124	
1,2-Dichloroethane-d4 (S)	%			107	80-124	
4-Bromofluorobenzene (S)	%			107	80-120	
Dibromofluoromethane (S)	%			117	80-122	
Toluene-d8 (S)	%			108	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63306 63307

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		256952001 Result	Spike Conc.	Spike Conc.	MS Result					
Acetone	ug/L	ND	40	40	30.0	34.8	75	87	58-146	15
Benzene	ug/L	1.1	20	20	20.7	24.9	98	119	75-124	19
Ethanol	ug/L	ND	400	400	303	311	76	78	36-177	3
Ethylbenzene	ug/L	ND	20	20	19.5	23.3	97	116	76-124	18
Methyl-tert-butyl ether	ug/L	ND	20	20	23.3	27.3	117	136	72-130	15 M1
tert-Butyl Alcohol	ug/L	ND	100	100	123	125	123	125	36-164	2
Toluene	ug/L	ND	20	20	19.0	22.7	95	114	75-124	18

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Parameter	Units	63306		63307		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		256952001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Xylene (Total)	ug/L	ND	60	60	58.9	70.8	98	118	76-123	18		
1,2-Dichloroethane-d4 (S)	%							108	106	80-124		
4-Bromofluorobenzene (S)	%							109	111	80-120		
Dibromofluoromethane (S)	%							118	116	80-122		
Toluene-d8 (S)	%							107	109	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: MSV/4061 Analysis Method: EPA 5030B/8260
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
 Associated Lab Samples: 256952006

METHOD BLANK: 63405 Matrix: Water

Associated Lab Samples: 256952006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetone	ug/L	ND	5.0	03/22/11 13:52	
Benzene	ug/L	ND	0.50	03/22/11 13:52	
Ethanol	ug/L	ND	250	03/22/11 13:52	
Ethylbenzene	ug/L	ND	0.50	03/22/11 13:52	
Methyl-tert-butyl ether	ug/L	ND	0.50	03/22/11 13:52	
tert-Butyl Alcohol	ug/L	ND	5.0	03/22/11 13:52	
Toluene	ug/L	ND	0.50	03/22/11 13:52	
Xylene (Total)	ug/L	ND	1.5	03/22/11 13:52	
1,2-Dichloroethane-d4 (S)	%	106	80-124	03/22/11 13:52	
4-Bromofluorobenzene (S)	%	108	80-120	03/22/11 13:52	
Dibromofluoromethane (S)	%	94	80-122	03/22/11 13:52	
Toluene-d8 (S)	%	98	80-123	03/22/11 13:52	

LABORATORY CONTROL SAMPLE: 63406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetone	ug/L	40	33.0	83	30-180	
Benzene	ug/L	20	17.3	86	76-127	
Ethanol	ug/L	400	293	73	31-182	
Ethylbenzene	ug/L	20	16.2	81	72-125	
Methyl-tert-butyl ether	ug/L	20	24.0	120	58-145	
tert-Butyl Alcohol	ug/L	100	85.1	85	31-166	
Toluene	ug/L	20	16.5	83	69-125	
Xylene (Total)	ug/L	60	50.7	84	74-124	
1,2-Dichloroethane-d4 (S)	%			107	80-124	
4-Bromofluorobenzene (S)	%			113	80-120	
Dibromofluoromethane (S)	%			94	80-122	
Toluene-d8 (S)	%			99	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63772 63773

Parameter	Units	256944002		MS		MSD		% Rec		RPD	Qual
		Result	Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec	Limits		
Acetone	ug/L	ND	40	40	35.0	36.5	88	91	58-146	4	
Benzene	ug/L	ND	20	20	20.3	20.8	102	104	75-124	2	
Ethanol	ug/L	ND	400	400	325	378	81	95	36-177	15	
Ethylbenzene	ug/L	ND	20	20	18.6	19.1	93	96	76-124	3	
Methyl-tert-butyl ether	ug/L	16.7	20	20	43.5	46.4	134	149	72-130	7	M1
tert-Butyl Alcohol	ug/L	6.4	100	100	98.5	109	92	102	36-164	10	
Toluene	ug/L	ND	20	20	19.0	19.5	95	97	75-124	3	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Parameter	Units	63772		63773		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		256944002 Result	MS Spike Conc.	MSD Spike Conc.								
Xylene (Total)	ug/L	ND	60	60	58.5	60.1	97	100	76-123	3		
1,2-Dichloroethane-d4 (S)	%							111	105	80-124		
4-Bromofluorobenzene (S)	%							113	111	80-120		
Dibromofluoromethane (S)	%							97	96	80-122		
Toluene-d8 (S)	%							97	96	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 256952

QC Batch: MSV/4076 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 256952005

METHOD BLANK: 63698 Matrix: Water
Associated Lab Samples: 256952005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	03/23/11 10:12	
Ethanol	ug/L	ND	250	03/23/11 10:12	
Ethylbenzene	ug/L	ND	0.50	03/23/11 10:12	
Methyl-tert-butyl ether	ug/L	ND	0.50	03/23/11 10:12	
tert-Butyl Alcohol	ug/L	ND	5.0	03/23/11 10:12	
Toluene	ug/L	ND	0.50	03/23/11 10:12	
Xylene (Total)	ug/L	ND	1.5	03/23/11 10:12	
1,2-Dichloroethane-d4 (S)	%	103	80-124	03/23/11 10:12	
4-Bromofluorobenzene (S)	%	108	80-120	03/23/11 10:12	
Dibromofluoromethane (S)	%	94	80-122	03/23/11 10:12	
Toluene-d8 (S)	%	100	80-123	03/23/11 10:12	

LABORATORY CONTROL SAMPLE: 63699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.6	93	76-127	
Ethanol	ug/L	400	232J	58	31-182	
Ethylbenzene	ug/L	20	17.4	87	72-125	
Methyl-tert-butyl ether	ug/L	20	27.3	136	58-145	
tert-Butyl Alcohol	ug/L	100	88.6	89	31-166	
Toluene	ug/L	20	17.4	87	69-125	
Xylene (Total)	ug/L	60	54.8	91	74-124	
1,2-Dichloroethane-d4 (S)	%			100	80-124	
4-Bromofluorobenzene (S)	%			111	80-120	
Dibromofluoromethane (S)	%			94	80-122	
Toluene-d8 (S)	%			96	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63955 63956

Parameter	Units	256992005 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	MS Conc.	Spike Conc.	MSD Conc.					
Benzene	ug/L	ND	20	20	20.6	19.1	103	96	75-124	7	
Ethanol	ug/L	ND	400	400	273	285	68	71	36-177	5	
Ethylbenzene	ug/L	ND	20	20	19.2	17.9	96	90	76-124	7	
Methyl-tert-butyl ether	ug/L	ND	20	20	28.1	27.0	140	135	72-130	4	M1
tert-Butyl Alcohol	ug/L	ND	100	100	84.8	87.3	85	87	36-164	3	
Toluene	ug/L	ND	20	20	19.0	17.8	95	89	75-124	7	
Xylene (Total)	ug/L	ND	60	60	60.5	55.7	101	93	76-123	8	
1,2-Dichloroethane-d4 (S)	%						101	104	80-124		
4-Bromofluorobenzene (S)	%						116	117	80-120		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		63955		63956							
Parameter	Units	256992005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Dibromofluoromethane (S)	%						94	94	80-122		
Toluene-d8 (S)	%						97	95	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: MSV/4053 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952006, 256952007

METHOD BLANK: 63292 Matrix: Water
 Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	03/21/11 22:43	
4-Bromofluorobenzene (S)	%	107	82-116	03/21/11 22:43	

LABORATORY CONTROL SAMPLE: 63293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	547	109	60-140	
4-Bromofluorobenzene (S)	%			107	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63304 63305

Parameter	Units	256952001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	544	550	105	107	60-140	1	
4-Bromofluorobenzene (S)	%						108	107	82-116		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: MSV/4070 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 256952005

METHOD BLANK: 63584 Matrix: Water

Associated Lab Samples: 256952005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	03/23/11 10:12	
4-Bromofluorobenzene (S)	%	108	82-116	03/23/11 10:12	

LABORATORY CONTROL SAMPLE: 63585

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	607	121	60-140	
4-Bromofluorobenzene (S)	%			114	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63953 63954

Parameter	Units	256992005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	570	587	114	117	60-140	3	
4-Bromofluorobenzene (S)	%						112	114	82-116		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: WET/2660

Analysis Method: SM 5210B

QC Batch Method: SM 5210B

Analysis Description: 5210B BOD, 5 day

Associated Lab Samples: 256952003, 256952006, 256952007

METHOD BLANK: 62643

Matrix: Water

Associated Lab Samples: 256952003, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	ug/L	ND	2000	03/21/11 15:00	

LABORATORY CONTROL SAMPLE: 62644

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	ug/L	198000	185000	93	85-115	

SAMPLE DUPLICATE: 62645

Parameter	Units	256952007 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	ug/L	7160	7080	1	

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 256952

QC Batch: WETA/1921 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

METHOD BLANK: 63224 Matrix: Water
Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	ND	1000	03/22/11 12:43	
Sulfate	ug/L	ND	1000	03/22/11 12:43	

LABORATORY CONTROL SAMPLE: 63225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	5000	5030	101	90-110	
Sulfate	ug/L	15000	15800	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63226 63227

Parameter	Units	256952001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	MS Result	MSD Result	Spike Conc.					
Chloride	ug/L	312000	100000	100000	417000	412000	105	100	90-110	1	
Sulfate	ug/L	68600	300000	300000	384000	386000	105	106	90-110	.7	

MATRIX SPIKE SAMPLE: 63228

Parameter	Units	256971001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	27.6 mg/L	5000	31300	74	90-110	E
Sulfate	ug/L	17.2 mg/L	15000	33000	105	90-110	

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 256952

QC Batch: WETA/1932 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

METHOD BLANK: 64212 Matrix: Water
Associated Lab Samples: 256952001, 256952002, 256952003, 256952004, 256952005, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	50.0	03/28/11 13:02	

LABORATORY CONTROL SAMPLE: 64213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	1000	1060	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64214 64215

Parameter	Units	256943004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	6.9 mg/L	5000	5000	12200	12800	108	118	90-110	4	M1

MATRIX SPIKE SAMPLE: 64216

Parameter	Units	256952001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	2350	1000	3550	119	90-110	M1

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: WETA/1912 Analysis Method: EPA 410.4
 QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
 Associated Lab Samples: 256952003, 256952006, 256952007

METHOD BLANK: 62592 Matrix: Water

Associated Lab Samples: 256952003, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	ug/L	ND	5000	03/17/11 14:30	

LABORATORY CONTROL SAMPLE: 62593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	42500	40600	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 62594 62595

Parameter	Units	256894001		62595		62594		% Rec Limits	RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS % Rec	MS % Rec			
Chemical Oxygen Demand	ug/L	6.1 mg/L	50000	57800	50000	53200	103	94	90-110	8

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

QC Batch: WETA/1914 Analysis Method: SM 4500-NO2 B
 QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
 Associated Lab Samples: 256952003, 256952006, 256952007

METHOD BLANK: 62646 Matrix: Water

Associated Lab Samples: 256952003, 256952006, 256952007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	ug/L	ND	10.0	03/16/11 11:54	

LABORATORY CONTROL SAMPLE: 62647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	ug/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 62648 62649

Parameter	Units	256952007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrite as N	ug/L	ND	50	50	48.7	50.1	92	95	71-109	3	

QUALIFIERS

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

PASI-S Pace Analytical Services - Seattle

BATCH QUALIFIERS

Batch: WET/2661

[1] Sample results obtained in the field and provided by the client.

ANALYTE QUALIFIERS

- 1n Methane has been reported from data that was analyzed within method required holding times. The final CCV was not injected on this day due to instrument malfunction. The sample was re-analyzed outside of hold, with compliant QC, for confirmation.
- 2n The GRO result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.
- B1 Less than 1.0 mg/L DO remained for all dilutions set. The reported value is an estimated greater than value and is calculated for the dilution using the least amount of sample.
- E Analyte concentration exceeded the calibration range. The reported result is estimated.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- S4 Surrogate recovery not evaluated against control limits due to sample dilution.
- S5 Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenberger
Pace Project No.: 256952

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
256952003	MW-12_20110331	RSK 175	AIR/12009		
256952006	MW-6_20110331	RSK 175	AIR/12009		
256952007	MW-9_20110331	RSK 175	AIR/12009		
256952001	MW-10_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952002	MW-11_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952003	MW-12_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952004	MW-12A_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952005	MW-13_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952006	MW-6_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952007	MW-9_20110331	EPA 3510 Modified	OEXT/3434	EPA 8015B	GCSV/2335
256952001	MW-10_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952002	MW-11_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952003	MW-12_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952004	MW-12A_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952005	MW-13_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952006	MW-6_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952007	MW-9_20110331	EPA 3010	MPRP/2109	EPA 6010	ICP/2017
256952003	MW-12_20110331	EPA 3010	MPRP/2113	EPA 6010	ICP/2020
256952006	MW-6_20110331	EPA 3010	MPRP/2113	EPA 6010	ICP/2020
256952007	MW-9_20110331	EPA 3010	MPRP/2113	EPA 6010	ICP/2020
256952003	MW-12_20110331	EPA 7470	MERP/1390	EPA 7470	MERC/1404
256952006	MW-6_20110331	EPA 7470	MERP/1390	EPA 7470	MERC/1404
256952007	MW-9_20110331	EPA 7470	MERP/1390	EPA 7470	MERC/1404
256952001	MW-10_20110331	EPA 5030B/8260	MSV/4054		
256952002	MW-11_20110331	EPA 5030B/8260	MSV/4054		
256952003	MW-12_20110331	EPA 5030B/8260	MSV/4054		
256952004	MW-12A_20110331	EPA 5030B/8260	MSV/4054		
256952005	MW-13_20110331	EPA 5030B/8260	MSV/4076		
256952006	MW-6_20110331	EPA 5030B/8260	MSV/4061		
256952007	MW-9_20110331	EPA 5030B/8260	MSV/4054		
256952001	MW-10_20110331	CA LUFT	MSV/4053		
256952002	MW-11_20110331	CA LUFT	MSV/4053		
256952003	MW-12_20110331	CA LUFT	MSV/4053		
256952004	MW-12A_20110331	CA LUFT	MSV/4053		
256952005	MW-13_20110331	CA LUFT	MSV/4070		
256952006	MW-6_20110331	CA LUFT	MSV/4053		
256952007	MW-9_20110331	CA LUFT	MSV/4053		
256952003	MW-12_20110331	SM 3500-Fe B#4	WET/2662		
256952006	MW-6_20110331	SM 3500-Fe B#4	WET/2662		
256952007	MW-9_20110331	SM 3500-Fe B#4	WET/2662		
256952003	MW-12_20110331	SM 3500-Fe B#4	WET/2661		
256952006	MW-6_20110331	SM 3500-Fe B#4	WET/2661		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenberger

Pace Project No.: 256952

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
256952007	MW-9_20110331	SM 3500-Fe B#4	WET/2661		
256952003	MW-12_20110331	SM 5210B	WET/2660	SM 5210B	WET/2685
256952006	MW-6_20110331	SM 5210B	WET/2660	SM 5210B	WET/2685
256952007	MW-9_20110331	SM 5210B	WET/2660	SM 5210B	WET/2685
256952001	MW-10_20110331	EPA 300.0	WETA/1921		
256952002	MW-11_20110331	EPA 300.0	WETA/1921		
256952003	MW-12_20110331	EPA 300.0	WETA/1921		
256952004	MW-12A_20110331	EPA 300.0	WETA/1921		
256952005	MW-13_20110331	EPA 300.0	WETA/1921		
256952006	MW-6_20110331	EPA 300.0	WETA/1921		
256952007	MW-9_20110331	EPA 300.0	WETA/1921		
256952001	MW-10_20110331	EPA 353.2	WETA/1932		
256952002	MW-11_20110331	EPA 353.2	WETA/1932		
256952003	MW-12_20110331	EPA 353.2	WETA/1932		
256952004	MW-12A_20110331	EPA 353.2	WETA/1932		
256952005	MW-13_20110331	EPA 353.2	WETA/1932		
256952006	MW-6_20110331	EPA 353.2	WETA/1932		
256952007	MW-9_20110331	EPA 353.2	WETA/1932		
256952003	MW-12_20110331	EPA 410.4	WETA/1912		
256952006	MW-6_20110331	EPA 410.4	WETA/1912		
256952007	MW-9_20110331	EPA 410.4	WETA/1912		
256952003	MW-12_20110331	SM 4500-NO2 B	WETA/1914		
256952006	MW-6_20110331	SM 4500-NO2 B	WETA/1914		
256952007	MW-9_20110331	SM 4500-NO2 B	WETA/1914		



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Telephone: 877-252-9262 Fax: 925-252-9269

Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
		Date Received: 03/14/11-03/15/11
	Client Contact: Regina Ste. Marie	Date Reported: 03/21/11
	Client P.O.:	Date Completed: 03/28/11

WorkOrder: 1103443

March 28, 2011

Dear Regina:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#2705191; 449 Hegenberger,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1103443



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of 3 of 3
Cooler # 1 of 1
1Q 2011 GW Event



Required Lab Information:		Required Project Information:		Required Invoice Information:																									
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201103	Send Invoice to: David Sowle																										
Address: 940 S. Harney Street Seattle WA 98108	AnteaGrp proj#: 449 Hegenberger	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	Turn around time (days): 10	QC level Required: Standard																								
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Special: <input type="checkbox"/>																								
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copeitdata@intelligentehs.com	Mark one: <input type="checkbox"/>																										
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-8385	CC Hardcopy report to:	MA MCP Cert? <input type="checkbox"/>																										
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to:	CT RCP Cert? <input type="checkbox"/>																										
ITEM #	SAMPLE ID (A-Z, 0-9 / -) IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX: GROUND WATER, SURFACE WATER, WASTE WATER, FRESH PRODUCT, SOIL, WASTE AIR, GVE AIR, VOL. SOL.	MATRIX: WATER, SURFACE WATER, WATER SO, SLUDGE, ASBESTE, OTHER, MINERAL TISSUE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.									
									Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	HgCl ₂	Methanol	Other	2320B Asbestos	351.2 Total Phosphorus (TP)			210.6 Hexachlorine	300.1 Bromide	300.1 Nitrate	300.1 Sulfate	153.3 Arsenic as N	420.0 Carbon Disoxide	420.0 Chlorine	420.0 Cyanide	420.0 Lead Organic C
1	MW-10_20110331			WG																									
2	MW-11_20110331			WG																									
3	MW-12_20110331			WG	G	3-14-11	1525	13																					
4	MW-12A_20110331			WG																									
5	MW-13_20110331			WG																									
6	MW-8_20110331			WG	G	3-14-11		13																					
7	MW-9_20110331			WG	G	3-14-11	1330	13																					
8																													
9																													
10																													
11																													
12																													
Additional Comments/Special Instructions:				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions																	
Global ID: T0600101476				[Signature]		3/14	1659	[Signature]		3/14/11	1700	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N			
				[Signature]		3/14	1750	[Signature]		3/14/11	1750	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
				[Signature]				[Signature]				Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
				[Signature]				[Signature]				Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)				SAMPLER NAME AND SIGNATURE																									
UPS COURIER FEDEX				[Signature]																									
US MAIL				[Signature]																									
				SIGNATURE of SAMPLER				DATE Signed		Time:		Temp in °C																	
												60																	
												Samples on Ice?																	
												Sample intact?																	
												Trip Blank?																	

1103455



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 3
Cooler # of

1Q 2011 GW Event

McCampbell

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201103	Send Invoice to: David Sowle		
Address: 940 S. Harney Street Seattle WA 98108	AnteaGrp proj#: 449 Hegenberger	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	Turn around time (days): 10	
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copelldata@intelligentehs.com	MA MCP Cert? <input type="checkbox"/>	CT RCP Cert? <input type="checkbox"/>	Mark One
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-8385	CC Hardcopy report to:	Lab Project ID (lab use):		
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to:	Requested Analyses		

ITEM #	SAMPLE ID (A-Z, 0-9 / , -) IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER WP GROUND WATER GW WASTE WATER WW FRESH PRODUCT LP SOIL SO SLURRY SL EMERGENCY AIR EA OUT AIR OA SOIL GAS SG	MATRIX WATER W SURFACE WATER SW WATER USE WU SLUDGE S FIBROSLATE FS ANIMAL TISSUE TA TI	MATRIX CODE	SAMPLE TYPE G=GRAB C=COCMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.				
										Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₅	Methanol	Other	3209 As/Alloy	3217 Pb Total (excludes Pb)			218 H Hexachlorine	300 Bromide	300 I Bromide	4050 1 Hexachlorine
1	MW-10_20110334			WG																					
2	MW-11_20110334			WG																					
3	MW-12_20110331			WG																					
4	MW-12A_20110334			WG																					
5	MW-13_20110334			WG																					
6	MW-6_20110331			WG	G	3/14/11	1815 13		N	XXXX		X	X	X	X	X	X	X	X	X	X	X	X	X	
7	MW-9_20110331			WG																					

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions			
	<i>[Signature]</i>	3/14/11	2000	<i>[Signature]</i>	3/14/11	2000	Y/N	Y/N	Y/N	
	<i>[Signature]</i> (custodian)	3/15/11	0640	<i>[Signature]</i>	3/15/11	0640	Y/N	Y/N	Y/N	
	<i>[Signature]</i> / B/S	3/15/11	0818	<i>[Signature]</i>	3/15/11	0818	Y/N	Y/N	Y/N	
							Y/N	Y/N	Y/N	
	SHIPPING METHOD: (mark as appropriate)	SAMPLER NAME AND SIGNATURE					Temp in °C	Samples on Ice?	Sample Intact?	Trip Blank?
	UPS COURIER FEDEX	PRINT Name of SAMPLER:								
	US MAIL	SIGNATURE of SAMPLER:		<i>J. KRESS</i>	Time 2000					

ICE? 10.2

GOOD CONDITION HEAD SPACE ABSENT DECHLORINATED IN LAB PRESERVATION VOAS O&G METALS OTHER NaOH/H2SO4

APPROPRIATE CONTAINERS PRESERVED IN LAB

McC Campbell Analytical, Inc.

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1103443

ClientCode: PASS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Regina Ste. Marie
Pace Analytical Services, Inc.
940 S. Harney Street
Seattle, WA 98108
(206) 957-2427 FAX

Email: Regina.SteMarie@pacelabs.com
cc:
PO:
ProjectNo: #2705191; 449 Hegenberger

Bill to:

Accounts Payable
Pace Analytical Services, Inc.
940 S. Harney Street
Seattle, WA 98108

Requested TAT: 5 days

Date Received: 03/14/2011

Date Printed: 03/28/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1103443-001	MW-12_20110331	Water	3/14/2011 15:25	<input type="checkbox"/>	C	D	E	A	B	F	H	A	I	J	B	G
1103443-002	MW-9_20110331	Water	3/14/2011 13:30	<input type="checkbox"/>	C	D	E	A	B	F	H		I	J	B	G
1103443-003	MW-6_20110331	Water	3/14/2011 18:15	<input type="checkbox"/>	C	D	E	A	B	F	H		I	J	B	G

Test Legend:

1	218_6_W	2	300_1_W	3	300_1SPE_W	4	Alka(spe)_W	5	AMMONIA_W
6	IC(CO2)_W	7	METALSMS_W	8	PREFD REPORT	9	SALINITY_W	10	TCEC-Enum_W
11	TKN_W	12	TOC_W						

Prepared by: Ana Venegas

Comments: Spoke & sent an email to Regina on 03/15/11 at 4:30pm re: positive TC in -001 - Angela R. WO#1103455 was combined with this workorder per client 03/28/11; new sample ID #1103443-003.

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pace Analytical Services, Inc.**

Date and Time Received: **3/14/2011 6:58:54 PM**

Project Name: **#2705191; 449 Hegenberger**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1103443** Matrix Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 6°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

=====

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/14/11-03/16/11
		Date Analyzed: 03/14/11-03/16/11

Hexachrome by IC*

Analytical Method: E218.6

Work Order: 1103443

Lab ID	Client ID	Matrix	Hexachrome	DF	Comments
1103443-001C	MW-12_20110331	W	ND	1	
1103443-002C	MW-9_20110331	W	ND	1	
1103443-003C	MW-6_20110331	W	ND<2.0	10	a1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L
	S	NA

* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # means surrogate diluted out of range or surrogate coelutes with another peak.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

a1) sample diluted due to matrix interference



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	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/15/11
		Date Analyzed 03/15/11

Inorganic Anions by IC*

Extraction method E300.1

Analytical methods E300.1

Work Order: 1103443


Lab ID	Client ID	Matrix	Bromide	DF	% SS	Comments
1103443-001D	MW-12_20110331	W	35	10	---	
1103443-002D	MW-9_20110331	W	0.64	1	97	
1103443-003D	MW-6_20110331	W	2.4	10	92	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.1	mg/L
	S	NA	NA

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

* [Nitrate as NO3⁻] = 4.4268 x [Nitrate as N]

means surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

 Angela Rydelius, Lab Manager



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Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/15/11-03/16/11
		Date Analyzed: 03/15/11-03/16/11

Disinfection Byproduct*

Extraction method E300.1

Analytical methods E300.1

Work Order: 1103443

Lab ID	Client ID	Matrix	Bromate	DF	% SS	Comments
1103443-001E	MW-12_20110331	W	ND<0.050	10	N/A	a17
1103443-002E	MW-9_20110331	W	ND	1	N/A	
1103443-003E	MW-6_20110331	W	ND<0.050	10	N/A	a1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.005	mg/L
	S	NA	NA

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

means surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

a1) sample diluted due to matrix interference
a17) sample diluted due to high inorganic content



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Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/21/11
		Date Analyzed: 03/21/11

Inorganic Carbon as Carbon Dioxide*

Analytical Method: E415.3

Work Order: 1103443

Lab ID	Client ID	Matrix	IC as CO2	DF	Comments
1103443-001F	MW-12_20110331	W	1100	5	
1103443-002F	MW-9_20110331	W	400	5	
1103443-003F	MW-6_20110331	W	1200	5	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	3.7 mg/L	
	S	NA	

* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg.

* Non-Purgeable Organic Carbon=NPOC; TOC=Total Organic Carbon; DOC=Dissolved Organic Carbon; POC= Purgeable Organic Carbon; IC=Inorganic Carbon.

DF = Dilution Factor

 Angela Rydelius, Lab Manager



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Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/14/11-03/15/11
		Date Analyzed: 03/15/11-03/16/11

Metals*

Extraction method: E200.8

Analytical methods: E200.8

Work Order: 1103443

Lab ID	Client ID	Matrix	Extraction Type	Chromium	DF	% SS	Comments
1103443-001H	MW-12_20110331	W	TOTAL	2.1	1	114	
1103443-002H	MW-9_20110331	W	TOTAL	2.1	1	105	
1103443-003H	MW-6_20110331	W	TOTAL	3.4	1	108	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	0.5	µg/L
	S	TOTAL	NA	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / WET / DI WET / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
 TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
 DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor

 Angela Rydelius, Lab Manager



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Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/21/11
		Date Analyzed: 03/21/11

Salinity*

Analytical Method: SM2520B

Work Order: 1103443

Lab ID	Client ID	Matrix	Salinity	DF	Comments
1103443-001I	MW-12_20110331	W	18100 @ 25.0°C	1	
1103443-002I	MW-9_20110331	W	1490 @ 25.0°C	1	
1103443-003I	MW-6_20110331	W	1540 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

* Salinity (mg/L) = 0.64 * S.C.(µmhos/cm @ 25°C) per SSSA volume 5 part 3.
 DF = Dilution Factor



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	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/14/11-03/15/11
		Date Analyzed: 03/15/11-03/16/11

Total Coliform / E. Coli, Enumeration

Analytical Method: SM9223B

Work Order: 1103443

Lab ID	Client ID	Matrix	Total Coliform	95% Confident Interval	E. Coli	95% Confident Interval	DF	Comments
001J	MW-12_20110331	W	1900	1,300 - 2,800	ND<10	---	10	
002J	MW-9_20110331	W	ND	---	ND	---	1	
003J	MW-6_20110331	W	170,000	120,000 - 270,000	ND<100	---	100	

Reporting Limit & Reporting Units	W	1.0 MPN/100ml
	S	NA

DF = Dilution Factor

 Angela Rydelius, Lab Manager



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Telephone: 877-252-9262 Fax: 925-252-9269

Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/17/11
		Date Analyzed: 03/18/11

Total Kjeldahl Nitrogen*

Analytical Method: E351.2

Work Order: 1103443

Lab ID	Client ID	Matrix	TKN as N	DF	Comments
1103443-001B	MW-12_20110331	W	0.40	1	
1103443-002B	MW-9_20110331	W	1.5	1	
1103443-003B	MW-6_20110331	W	4.1	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.15 mg/L	
	S	NA	

*water/product/oil/non-aqueous liquid samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
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 Telephone: 877-252-9262 Fax: 925-252-9269

Pace Analytical Services, Inc. 940 S. Harney Street Seattle, WA 98108	Client Project ID: #2705191; 449 Hegenberger	Date Sampled: 03/14/11
	Client Contact: Regina Ste. Marie	Date Received: 03/14/11-03/15/11
	Client P.O.:	Date Extracted: 03/17/11
		Date Analyzed: 03/17/11

Total Organic Carbon (TOC) reported as NPOC*

Analytical Method: E415.3

Work Order: 1103443

Lab ID	Client ID	Matrix	TOC	DF	Comments
1103443-001G	MW-12_20110331	W	6.5	1	
1103443-002G	MW-9_20110331	W	6.4	1	
1103443-003G	MW-6_20110331	W	47	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.3 mg/L
	S	NA

* water samples are reported in mg/L. Settleable solids and floatable matter are excluded from analysis per E415.3. TOC is reported as NPOC.

TOC = Total Organic Carbon; NPOC = Non-Purgeable Organic Carbon; DOC = Dissolved Organic Carbon;
 POC = Purgeable Organic Carbon; IC = Inorganic Carbon; TC = Total Carbon.

DF = Dilution Factor



QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56831

WorkOrder 1103443

EPA Method E218.6		Extraction E218.6							Spiked Sample ID: 1103429-001c			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Hexachrome	ND	25	100	100	0	102	101	0.550	90 - 110	10	90 - 110	10

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56831 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001C	03/14/11 3:25 PM	03/15/11	03/15/11 1:53 PM	1103443-002C	03/14/11 1:30 PM	03/14/11	03/14/11 11:01 PM
1103443-003C	03/14/11 6:15 PM	03/16/11	03/16/11 12:06 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56801

WorkOrder 1103443

EPA Method E300.1		Extraction E300.1							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Bromide	N/A	1	N/A	N/A	N/A	93.7	91.3	2.52	N/A	N/A	85 - 115	15
%SS:	N/A	0.10	N/A	N/A	N/A	104	104	0	N/A	N/A	90 - 115	10

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56801 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001D	03/14/11 3:25 PM	03/15/11	03/15/11 6:19 PM	1103443-002D	03/14/11 1:30 PM	03/15/11	03/15/11 3:06 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

surrogate diluted out of range or surrogate coelutes with another peak.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56908

WorkOrder 1103443

EPA Method E300.1		Extraction E300.1							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Bromide	N/A	1	N/A	N/A	N/A	92.8	93.1	0.303	N/A	N/A	85 - 115	15
%SS:	N/A	0.10	N/A	N/A	N/A	92	92	0	N/A	N/A	90 - 115	10

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56908 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-003D	03/14/11 6:15 PM	03/15/11	03/15/11 7:04 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

surrogate diluted out of range or surrogate coelutes with another peak.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56902

WorkOrder 1103443

EPA Method E300.1		Extraction E300.1							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Bromate	N/A	0.040	N/A	N/A	N/A	105	102	3.15	N/A	N/A	85 - 115	10

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56902 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001E	03/14/11 3:25 PM	03/15/11	03/15/11 10:51 PM	1103443-002E	03/14/11 1:30 PM	03/15/11	03/15/11 7:39 AM
1103443-003E	03/14/11 6:15 PM	03/16/11	03/16/11 12:22 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: Alkalinity

Matrix: W

WorkOrder: 1103443

Method Name: SM2320B		Units mg CaCO3/L			BatchID: 56802	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1103443-001A	786	1	782	1	0.552	<20
1103443-002A	362	1	360	1	0.573	<20
1103443-003A	1020	1	1020	1	0.32	<20

BATCH 56802 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001A	03/14/11 3:25 PM	03/16/11	03/16/11 2:16 PM	1103443-002A	03/14/11 1:30 PM	03/16/11	03/16/11 2:30 PM
1103443-003A	03/14/11 6:15 PM	03/16/11	03/16/11 2:39 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 * (Sample - Duplicate) / [(Sample + Duplicate) / 2]



QC SUMMARY REPORT FOR E350.1

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56845

WorkOrder 1103443

EPA Method E350.1		Extraction E350.1							Spiked Sample ID: 1103367-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Total Ammonia as N	0.84	4	91.1	100	7.78	102	107	4.24	80 - 120	20	90 - 110	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56845 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001B	03/14/11 3:25 PM	03/18/11	03/18/11 12:55 PM	1103443-002B	03/14/11 1:30 PM	03/18/11	03/18/11 12:59 PM
1103443-003B	03/14/11 6:15 PM	03/18/11	03/18/11 1:03 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E415.3

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56903

WorkOrder 1103443

EPA Method E415.3		Extraction E415.3							Spiked Sample ID: 1103443-003F			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
IC as CO2	1,200	36.7	NR	NR	NR	105	108	2.73	70 - 130	20	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56903 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001F	03/14/11 3:25 PM	03/21/11	03/21/11 1:35 PM	1103443-002F	03/14/11 1:30 PM	03/21/11	03/21/11 1:41 PM
1103443-003F	03/14/11 6:15 PM	03/21/11	03/21/11 1:13 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56859

WorkOrder 1103443

EPA Method E200.8		Extraction E200.8							Spiked Sample ID: 1103191-006A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chromium	ND	10	93.4	97	3.71	101	103	1.28	70 - 130	20	85 - 115	20
%SS:	98	750	100	99	0.629	100	99	1.11	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56859 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001H	03/14/11 3:25 PM	03/14/11	03/15/11 8:27 PM	1103443-002H	03/14/11 1:30 PM	03/14/11	03/15/11 8:33 PM
1103443-003H	03/14/11 6:15 PM	03/15/11	03/16/11 8:25 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: Salinity

Matrix: W

WorkOrder: 1103443

Method Name: SM2520B		Units mg/L			BatchID: 56799	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1103443-001I	18100 @ 25.0°C	1	18100 @ 25.0°C	1	0.177	<2
1103443-002I	1490 @ 25.0°C	1	1510 @ 25.0°C	1	0.98	<2
1103443-003I	1540 @ 25.0°C	1	1540 @ 25.0°C	1	0.291	<2

BATCH 56799 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001I	03/14/11 3:25 PM	03/21/11	03/21/11 1:00 PM	1103443-002I	03/14/11 1:30 PM	03/21/11	03/21/11 1:10 PM
1103443-003I	03/14/11 6:15 PM	03/21/11	03/21/11 1:20 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 * (Sample - Duplicate) / [(Sample + Duplicate) / 2]

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: Total Coliform / E. Coli, Enumeration by SM9223B

Matrix: W

WorkOrder: 1103443

Method Name: SM9223B				BatchID: 56793				
Lab ID	Analyte	Reporting Units	Sample	DF	Dup	DF	% RPD	Acceptance Criteria (%)
1103443-001J	E Coli	MPN/100ml	ND<10	10	ND<10	10	N/A	<70
	Total Coliform	MPN/100ml	1900	10	1700	10	15.4	<70
1103443-002J	E Coli	MPN/100ml	ND	1	ND	1	N/A	<70
	Total Coliform	MPN/100ml	ND	1	ND	1	N/A	<70
1103443-003J	E Coli	MPN/100ml	ND<100	100	ND<100	100	N/A	<70
	Total Coliform	MPN/100ml	170,000	100	130,000	100	28.6	<70

BATCH 56793 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001J	03/14/11 3:25 PM	03/14/11	03/15/11 4:18 PM	1103443-002J	03/14/11 1:30 PM	03/14/11	03/15/11 4:24 PM
1103443-003J	03/14/11 6:15 PM	03/15/11	03/16/11 10:33 AM				

% RPD = abs(Sample - Dup) / ((Sample + Dup) / 2) * 100

N/A = Not Applicable

NR = %RPD may fall outside of laboratory acceptance criteria due to sample inconsistency between two containers.



QC SUMMARY REPORT FOR E351.2

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 56880

WorkOrder 1103443

EPA Method E351.2		Extraction E351.2							Spiked Sample ID: 1103416-004H			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TKN as N	ND	12	102	101	0.800	102	106	3.75	80 - 120	20	90 - 110	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56880 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001B	03/14/11 3:25 PM	03/17/11	03/18/11 3:08 PM	1103443-002B	03/14/11 1:30 PM	03/17/11	03/18/11 3:23 PM
1103443-003B	03/14/11 6:15 PM	03/17/11	03/18/11 3:15 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E415.3

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 1103443

EPA Method E415.3		Extraction E415.3				BatchID: 56864			Spiked Sample ID: 1103389-001C				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	mg/L	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TOC	14	50	120	119	0.542	50	116	115	0.673	70 - 130	20	80 - 120	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 56864 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1103443-001G	03/14/11 3:25 PM	03/17/11	03/17/11 3:00 PM	1103443-002G	03/14/11 1:30 PM	03/17/11	03/17/11 3:17 PM
1103443-003G	03/14/11 6:15 PM	03/17/11	03/17/11 3:46 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

$\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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

Page: 2 of 3
 Cooler # _____ of _____
 1Q 2011 GW Event

PACE-SEATTLE

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201103	Send Invoice to: David Sowle		
Address: 940 S. Harney Street Seattle WA 98108	AnteaGrp proj#: 449 Hegenberger	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	Turn around time (days): 10	QC level Required: Standard
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copeltdata@intelligentelabs.com	MA MCP Cert? <input type="checkbox"/>	CT RCP Cert? <input type="checkbox"/>	Mark One
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-8385	CC Hardcopy report to:	Lab Project ID (lab use):		
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to:	Requested Analyses:		

ITEM #	SAMPLE ID (A-Z, 0-9, -) IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G-GRAV C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.				
								Unpreserved	H2SO4	HNO3	HC	NaOH	Na2S2O8	Methanol	Other	SW846/1631/1631/1631	1210B BOD/5 Day			390 Chloride	352-Asbestos (AOT)	MPO & Chemical Oxygen Demand	REACTANT/2-Methanol
1	MW-10_20110331		WG																				
2	MW-11_20110331		WG																				
3	MW-12_20110331		WG	G	3-14-11	1525	S	Y	X	X												Ferrous Iron =	
4	MW-12A_20110331		WG																				
5	MW-13_20110331		WG																				
6	MW-6_20110331		WG	G	3-14-11	1815	S	Y	Y	X													Ferrous Iron =
7	MW-9_20110331		WG	G	3-14-11	1330	S	Y	X	X													Ferrous Iron =

Additional Comments/Special Instructions: Global ID: T0600101476	RELIQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions			
	<i>J. Kress</i>	3-14-11	1936				Y/N	Y/N	Y/N	
	Fedex	3/15/11	0907	Tyolki Swamy	3/15/11	0907	1.7	(Y)N	(Y)N	(Y)N
	Perlex	3/15/11	1610	Tyolki Swamy	3/16/11	1610	3.3	(Y)N	(Y)N	(Y)N
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE								
UPS COURIER <input checked="" type="checkbox"/>	SIGNATURE OF SAMPLER		<i>JUSTIN KRESS</i>		DATE/TIME		Temp in °C			
US MAIL <input type="checkbox"/>	SIGNATURE OF SAMPLER		<i>J. Kress</i>		3/14/11		Samples on Ice? <input type="checkbox"/>			
								Sample intact? <input checked="" type="checkbox"/>		
								Trip Blank? <input type="checkbox"/>		

03/15/11 16:10 Cooler 2 of 3 received at 3.0°C with ice, custody seals not intact.

Sample Container Count

2 5 6 9 5 2

CLIENT: Antea



COC PAGE 1 of -

COC ID# -

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	VG53	BP2F	Comments
1	10		4	2		1		1 ^{L2}	1 ^{L2}					* all bottles received in cooler 2 of 3 at 16:10 03/15/11 at 30°C.
2	6		RD	2				1 ^{L2}						
3			433 3/15		1			1 ^{L2}				3	1 ^{L2}	
4								1 ^{L2}						
5								1 ^{L2}						
6					1			1 ^{L2}				3	1 ^{L2}	
7					1			1 ^{L2}				3	1 ^{L2}	
8														
9														
10														
11														
12														Trip Blank? <u>No</u>

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



Sample Condition Upon Receipt

Client Name: Antea Project # 256952

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8126 5346 7550

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes + No *→ Cooler 2 of 3 received with custody seals not intact.*

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

Thermometer Used 132018 or 101731962 or 226099 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.7, 3.3, 3.0 Biological Tissue is Frozen: Yes No
Temp should be above freezing ≤ 6°C

Date and Initials of person examining contents: NJS 3/15/11

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>BOD</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Follow Up / Hold Analysis Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9. <u>See note below</u>
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sample Labels match COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>See note below</u>
-Includes date/time/ID/Analysis Matrix:	<u>Water</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. <u>mw-12 (Total), mw-13 (Total), mw-6 (Filtered) bottles received with pH & 7 for metals.</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions: <u>COA</u> , coliform, TOC, O&G	Initial when completed <u>NJS 3/15/11</u>	Lot # of added preservative <u>111 0070</u>
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blanks Present:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: Dennis Dettloff Date/Time: 03/15/11 11:25

Comments/ Resolution: Long list of 6000 metals to be run as dissolved per client.

1 of 3 coolers not delivered at 09:07. Missing cooler contains HNO₃ & H₂SO₄ Containers Fed Ex to deliver afternoon of 03/15/11. Cooler received 3/15/11 16:10 Cooler also contained unpres. polys & 2 sets of ampoures. Specifics on bottle count sheet.

Project Manager Review: _____ Date: _____

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

Quarterly Summary Report, First Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix E

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>N/A</i>	Manifest Document No. <i>2705191-0311</i>	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>PC&F ATTN: LIZ BERNODEZ 21003 CAMINO RAMON SITE 250 SAN RAMON, CA 94583</i>		Site # <i>2705191</i> <i>449 Hegenberger Rd. Oakland, CA 94621</i>		
4. Generator's Phone (<i>925</i>) <i>884-0800</i>	5. Transporter 1 Company Name <i>BLAINE TECH SERVICES</i>	6. US EPA ID Number _____	A. State Transporter's ID _____	
7. Transporter 2 Company Name _____	8. US EPA ID Number _____	B. Transporter 1 Phone <i>310-885-4456</i>		
9. Designated Facility Name and Site Address <i>Seaport Environmental 700 Seaport Blvd. Redwood City, CA 94063</i>		10. US EPA ID Number <i>000013572</i>	C. State Transporter's ID _____	
		D. Transporter 2 Phone _____		
		E. State Facility's ID _____		
		F. Facility's Phone <i>4050-3104-1024</i>		
11. WASTE DESCRIPTION		12. Containers	13. Total Quantity	14. Unit Wt./Vol.
a. <i>Non hazardous waste liquid</i>		No. <i>1</i>	Type <i>TT</i>	<i>117</i>
b.				
c.				
d.				
G. Additional Descriptions for Materials Listed Above		H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information <i>Wear protective equipment while handling Weights and volumes are approximate 24 hr emergency phone number (310) 885-4455</i>				
<i>Approval Number 570 - 1049 Direct bill Blaine Tech Services Blaine Tech PO# MA-07164751</i>				
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name <i>(Antea Group) Jeryllyn Mendes</i>		Signature <i>Jeryllyn Mendes</i>	Date <i>2/23/11</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials		Date		
Printed/Typed Name <i>Justin Kress</i>	Signature <i>J Kress</i>	Month Day Year <i>3 14 11</i>		
18. Transporter 2 Acknowledgement of Receipt of Materials		Date		
Printed/Typed Name	Signature	Month Day Year		
19. Discrepancy Indication Space				
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				
Printed/Typed Name <i>Joaquin D. Camacho</i>		Signature <i>[Signature]</i>	Date <i>02/16/11</i>	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY