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Alameda County
Environmental Health

January 5, 2012

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

Subject: Semi-Annual Summary Report, July through December 2011
Site: 76 Service Station No. 5325
3220 Lakeshore Avenue
Oakland, California
Fuel Leak Case No. RO0000229

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,

PLATINUM ENERGY



BRIAN WHALEN

Attachment

Semi-Annual Summary Report, July through December 2011

*76 Service Station No. 5325
3220 Lakeshore Avenue
Oakland, California*

*Alameda County Health Care Services
Agency
Fuel Leak Case No. RO0000229*

*San Francisco Bay Regional Water Quality
Control Board
No. 01-1588*

GeoTracker Global ID No.T0600101463

Antea Group Project No. I40255325

January 5, 2012

Prepared for:
Ms. Barbara J. Jakub, P.G.
Alameda County Environmental
Health
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Attachment C	Blaine Tech Services Groundwater Sampling Field Data Sheets
Attachment D	Certified Laboratory Analytical Report and Data Validation Form
Attachment E	Waste Manifest

1.0 INTRODUCTION

Antea™ Group is pleased to submit this *Semi-Annual Summary Report, July through December 2011* for the referenced site in Oakland, CA. The site is located on the southeast corner of the intersection of Lakeshore Avenue and Lake Park Avenue in Oakland, California (**Figure 1**). The site is bounded to the north by Lakeshore Avenue; to the west and southwest by Lake Park Avenue; to the southeast by a supermarket parking lot; and to the east by a pharmacy. Station facilities include service station building with one service bay, three fuel dispenser islands, and two 12,000-gallon double-wall fiberglass gasoline underground storage tanks (USTs) [**Figure 2**].

A summary of previous environmental investigations is presented as **Attachment A**. Blaine Tech's procedures for groundwater monitoring, sampling, and equipment decontamination are presented as **Attachment B**. Groundwater monitoring and sampling field data sheets are presented as **Attachment C**. The groundwater sampling certified analytical report and chain-of-custody documentation are presented as **Attachment D**.

Site summary data has been tabled in the following:

- **Table 1** summarizes the current groundwater gauging and analytical data.
- **Table 2** summarizes the historical groundwater gauging and analytical data.
- **Table 3** summarizes the historical groundwater gradient and flow directions.

This report summarizes the groundwater data collected to date, focusing on the most recent analytical data obtained from groundwater samples collected on December 5, 2011. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No.7480.

1.1 Work Performed: July through December 2011

1. Antea Group prepared and submitted the *Semi-Annual Summary Report, January through June 2011, dated July 29, 2011*.
2. Antea Group conducted a utility survey to locate underground utilities on the site and in the surrounding street. Antea Group prepared and submitted the *Site Summary Report* dated August 31, 2011.
3. On November 2, 2011, Antea Group submitted a *Work Plan, Magnesium Sulfate Infiltration, Feasibility Study* to the Alameda County Health Care Services Agency (ACHCSA) for their review.
4. Blaine Tech Services, Inc. (Blaine Tech) conducted the quarterly groundwater sampling event on December 5, 2011.



1.2 Work Proposed: January through June 2012

1. Antea Group will prepare and submit the *Semi-Annual Summary Report, July through December 2011*, contained herein.
2. Antea Group will perform the work as proposed in the *Work Plan, Magnesium Sulfate Infiltration, Feasibility Study* submitted to the ACHCSA on November 2, 2011.
3. Blaine Tech will conduct the semi-annual groundwater monitoring and sampling in the second quarter 2012.

2.0 CURRENT PROJECT STATUS

Current phase of project:	Semi-Annual Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency (ACHCSA) Fuel Leak Case No. RO0000229
Contact:	Ms. Barbara Jakub
Secondary agency for cleanup oversight	San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) No. 01-1588
Monitoring well gauging schedule:	Semi-annually: U-1 through U-6 (second and fourth quarters)
Monitoring well sampling schedule:	Semi-annually: U-1 through U-6 (second and fourth quarters)
Total number of monitoring wells:	6
Range of well depths (total depth below ground surface, bgs):	21.5 to 26.5 feet
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	Yes
Generalized site geology:	Predominantly sandy silt, with sandy materials beginning at approximately 6-10 feet below ground surface (bgs)
Historical Depth to Water Range, in feet below top of casing (BTOC):	Min: 2.71 (U-6, Q3 2007) Max: 12.81 (MW-6, Q3 2004)
Historical Groundwater Elevation Range, in feet above mean sea level:	Min: -5.67 (U-6, Q3 2004) Max: 4.89 (U-4, Q1 2006)
Local Receptors:	Lake Merritt is 0.3 miles southwest of the site
Current Remediation Technique:	None

2.1 Regulatory Correspondence

No correspondence was sent to or received from the ACHCSA during this reporting period.

2.2 Remediation Status

No remedial activities are taking place on-site at this time.

2.3 Groundwater Monitoring

Semi-annual groundwater monitoring and sampling was conducted at the site on December 5, 2011 by Blaine Tech per their standard sampling protocol (**Attachment B**). A total of six monitoring wells were gauged and five monitoring wells were sampled. A car parked over monitoring well U-6 subsequent to gauging and prior to sampling. A copy of Blaine Tech’s field notes are presented as **Attachment C**. Measured depths to groundwater and respective groundwater elevations are summarized in **Table 1**. Depth to water was measured to within 0.01 feet BTOC in monitoring wells U-1 through U-6 using a water level indicator. Historic laboratory analytical results are summarized in **Table 2**. Gauging and sampling data from the most recent monitoring and sampling event are summarized below.

Well gauging and sampling date:	December 5, 2011
Wells gauged:	U-1 through U-6
Wells sampled:	U-1 through U-5
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (Attachment C):	Dissolved oxygen (DO), temperature, conductivity, pH, oxidation-reduction potential (ORP), and turbidity
Wells with measurable LNAPL:	None
Depth to Water Range (ft BTOC):	5.35 (U-6) to 10.59 (U-3)
Groundwater Elevation Range (ft above mean sea level):	5.78 (U-3) to 7.85 (U-2)
Change in depth to water from previous event (average change for all gauged wells):	0.61 decrease
Groundwater Flow Direction and Gradient in foot per foot (ft/ft):	Northeast at 0.015 ft/ft and southwest at 0.038 ft/ft

All monitoring and sampling activities for the site were conducted on December 5, 2011 by Blaine Tech and reviewed and certified by a California Professional Geologist.

2.3.1 Groundwater Sample Analysis

Groundwater samples collected from monitoring wells U-1 through U-5 were submitted with chain-of-custody documentation to Pace Analytical Services, Inc. (Pace) in Seattle, WA, a California state-certified laboratory (No. 01153CA). (Monitoring well MW-6 was not sampled because a car was parked over it.) Groundwater samples were analyzed for the following:

- TPHg by the CA LUFT Method
- Benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX), methyl tertiary-butyl ether (MTBE), tertiary amyl-methyl ether (TAME), tertiary butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), and ethanol by Environmental Protection Agency (EPA) Method 8260.

2.3.2 Groundwater Quality Data

Groundwater analytical results are tabulated in **Table 1** (current) and **Table 2** (historical). During the December 2011 sampling event, the following ranges of contaminant concentrations were reported in the specified site monitoring wells (only the constituents above the laboratory's indicated reporting limits are shown):

Constituents	Number of Reported Concentrations Above LRL of Total Samples Analyzed	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
TPHg	3 of 5	279 (U-5)	6,190 (U-1)
Ethylbenzene	2 of 5	1.1 (U-1)	17.4 (U-2)
TBA	3 of 5	86.6 (U-5)	1,040 (U-2)
MTBE	4 of 5	1.4 (U-3)	17.4 (U-2)

Key: LRL = Laboratory reporting limits; µg/L = Micrograms per liter

2.3.3 Contaminants of Concern

TPHg: TPHg was above the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis from monitoring wells U-1 (6,190 µg/L), U-2 (4,140 µg/L), and U-5 (279 µg/L) during the current event (**Figure 4**).

Benzene: Benzene was below the laboratory's indicated reporting limit in the groundwater samples collected and submitted for analysis from each of the five monitoring wells.

MTBE: MTBE was above the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis from monitoring wells U-1 (5.8 µg/L), U-2 (17.0 µg/L), U-4 (1.4 µg/L) and U-5 (3.8 µg/L) during the current event (**Figure 5**).

In addition, ethylbenzene was present in the groundwater samples collected and submitted for analysis from monitoring wells U-1 (1.1 µg/L) and U-2 (17.4 µg/L), and TBA was present in the groundwater samples collected and submitted for analysis from monitoring wells U-1 (872 µg/L), U-2 (1,040 µg/L), and U-5 (86.6 µg/L). All other constituents tested were below the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis during the current event. The December 5, 2011 groundwater analytical results and historical groundwater monitoring and analytical results are presented in **Table 1**. Pace Laboratory's analytical report and chain-of-custody documentation are presented as **Attachment D**.

The December 2011 groundwater elevation contour map is presented as **Figure 3**. A dissolved phase TPHg iso-concentration map is presented as **Figure 4**. A dissolved phase MTBE iso-concentration map is presented as **Figure 5**. Historical groundwater flow directions are shown on a rose diagram, presented as **Figure 6**.

2.3.4 Waste Disposal Summary

Water generated during well sampling and equipment cleaning was temporarily stored by Blaine Tech in a 2000-gallon poly tank. After the batch process, the generated wastewater was transported for proper disposal at Seaport Environmental in Redwood City, California. The method of containment and disposal is reported in Blaine Tech's procedures for groundwater sampling in **Attachment B**. A copy of the waste manifest is presented as **Attachment E**.

2.3.5 Quality Assurance / Quality Control

Antea Group's QA/QC measures included use of a detailed QA/QC data validation check on the Pace laboratory analytical results for the December 2011 sampling event. Antea Group's laboratory data validation checklist and the Pace laboratory report are presented in **Attachment D**. A summary of QA/QC information follows.

Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	One (E)
Validity of Laboratory Data:	Data set is Valid

Data Qualifiers:

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

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

Petroleum hydrocarbon impacted soil has been adequately assessed vertically and laterally beneath the site. Petroleum hydrocarbon impacted groundwater has not been adequately delineated off-site to the north.

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.

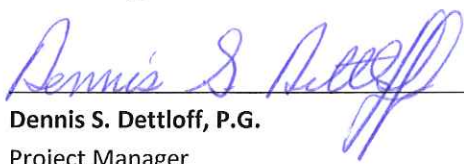
Prepared by:



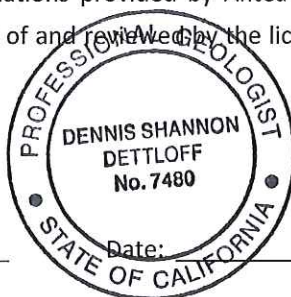
Jonathan Fillingame
Staff Geologist

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:



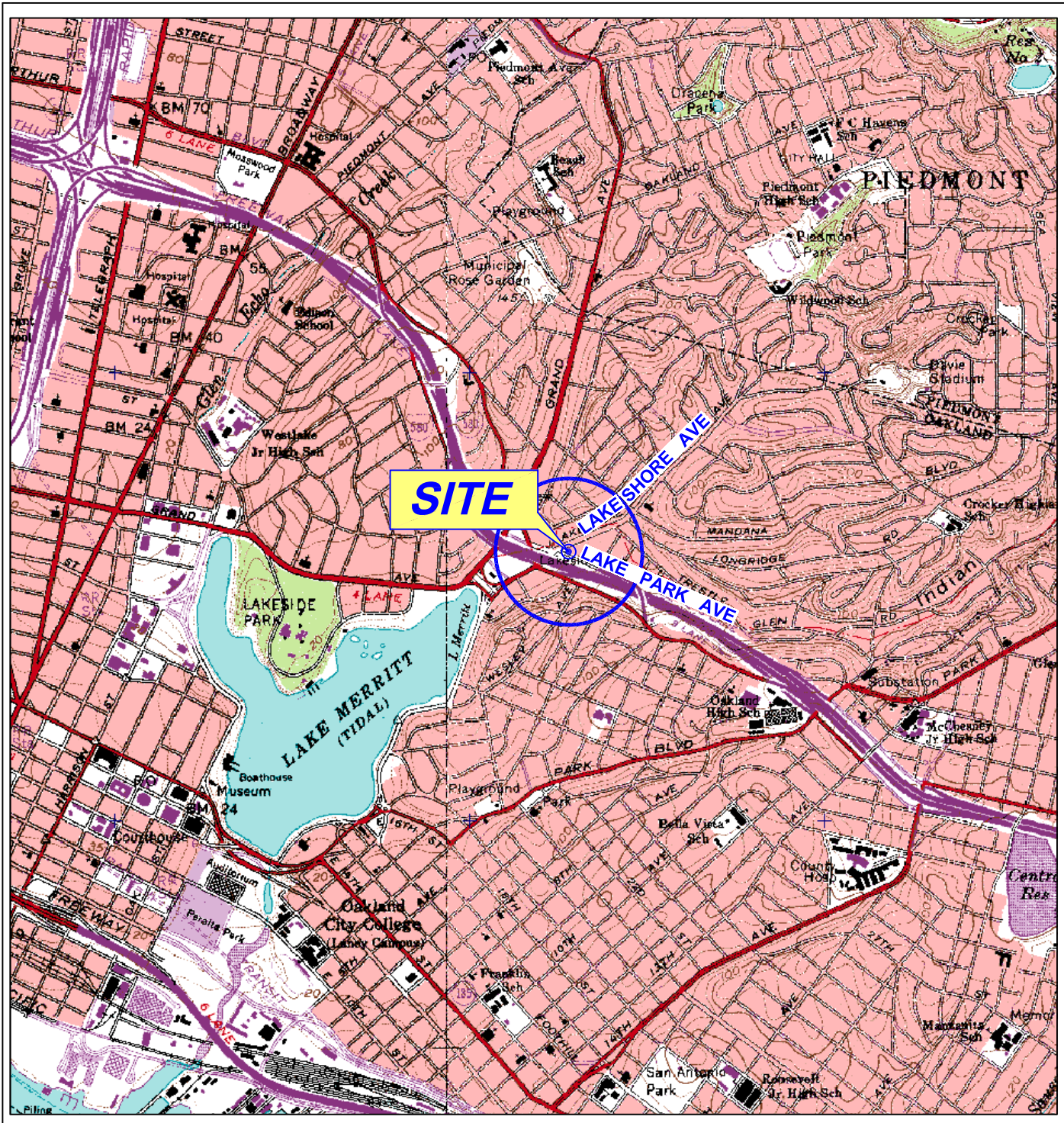
Dennis S. Dettloff, P.G.
Project Manager
California Registered Professional Geologist No. 7480



cc: GeoTracker (upload)

Figures

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 Groundwater Elevation Contour Map – December 5, 2011
- Figure 4 Dissolved Phase TPHg Isoconcentration Map – December 5, 2011
- Figure 5 Dissolved Phase MTBE Isoconcentration Map – December 5, 2011
- Figure 6 Historical Groundwater Flow Directions



GENERAL NOTES:
 BASE MAP FROM 3-D TOPO QUADS
 OAKLAND WEST & OAKLAND EAST, CA. QUADRANGLE
 7.5 MINUTE TOPOGRAPHIC MAP

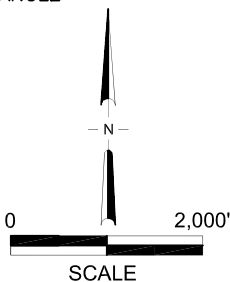
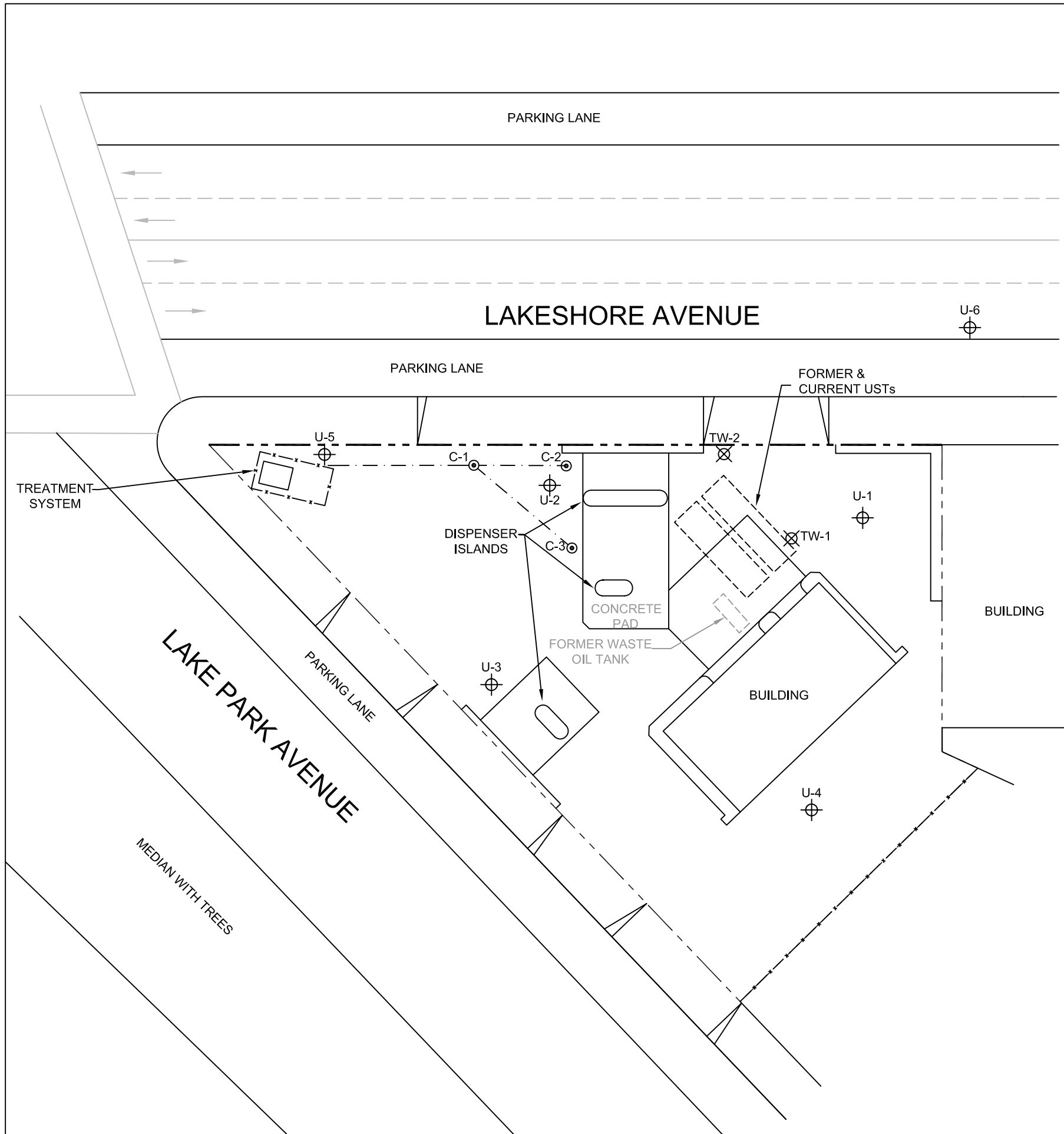


FIGURE 1 SITE LOCATION MAP




76 SERVICE STATION NO. 5325
 3220 LAKESHORE AVENUE
 OAKLAND, CALIFORNIA

PROJECT NO. 140255325		DRAWN BY JH	
FILE NO. 5325-SLM		PREPARED BY EW	
DATE 28 JAN 11	REV. 2	REVIEWED BY	





LEGEND

- U-6  MONITORING WELL
- TW-1  TANK CAVITY WELL
- C-1  SPARGE POINT
- PROPERTY BOUNDARY
- - - TRENCHING
- x-x-x- FENCE

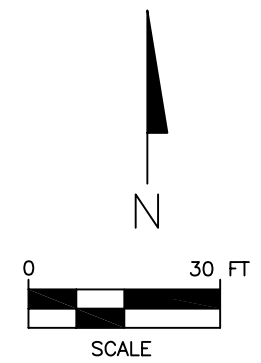

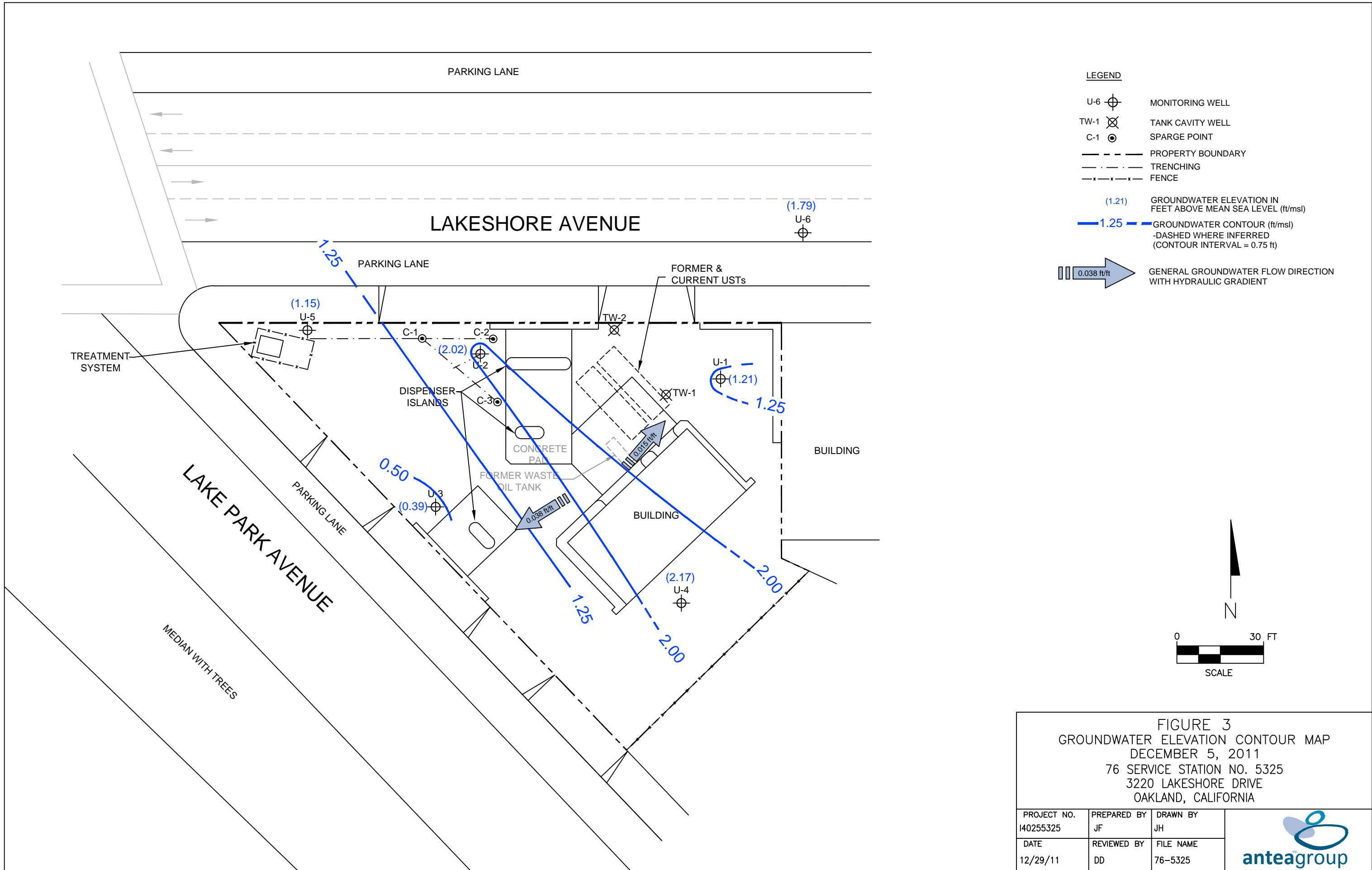
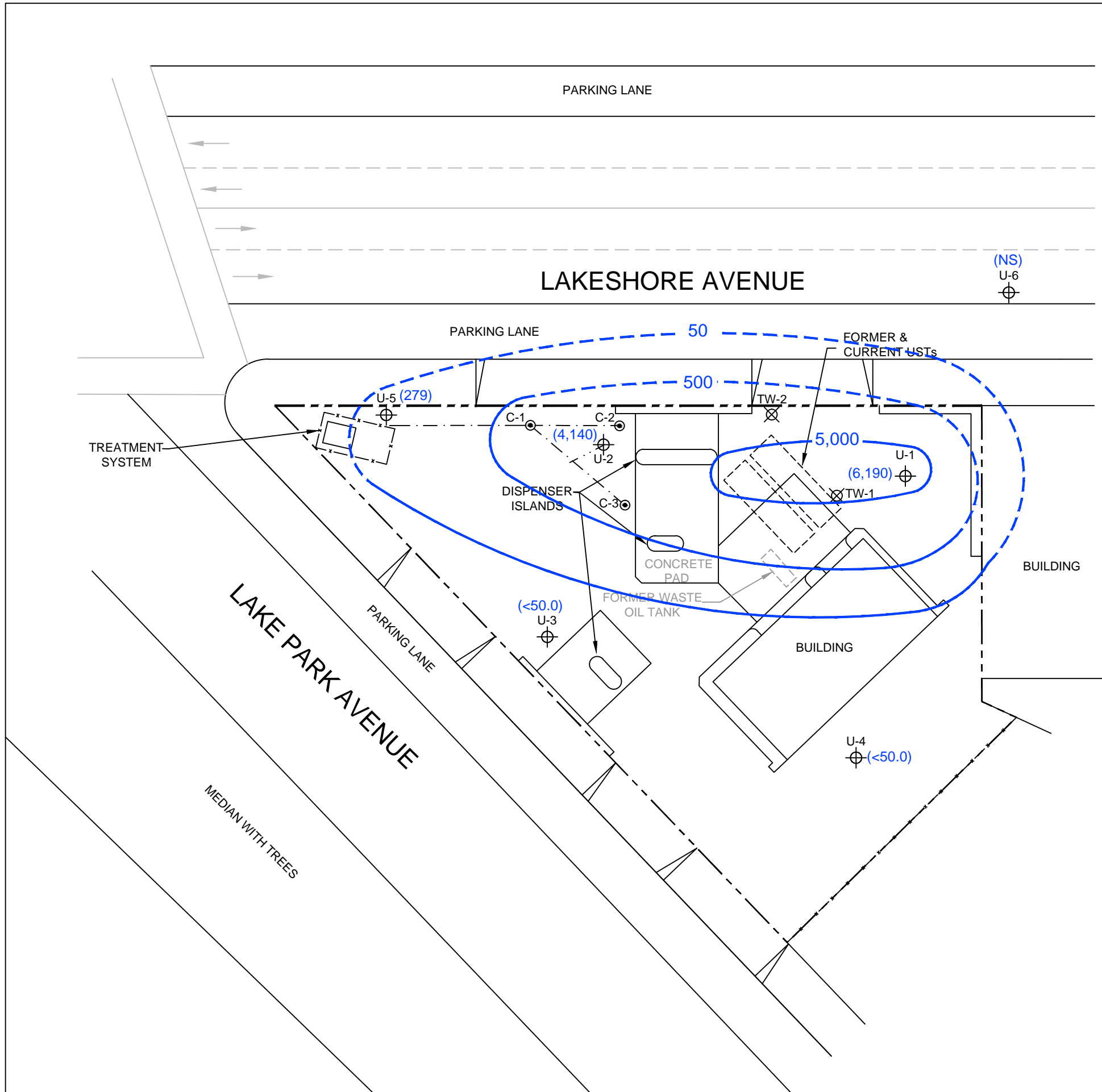


FIGURE 2
SITE PLAN

76 SERVICE STATION NO. 5325
3220 LAKESHORE DRIVE
OAKLAND, CALIFORNIA

PROJECT NO. I40255325	PREPARED BY DD	DRAWN BY JH	
DATE 01/28/11	REVIEWED BY DD	FILE NAME 76-5325	





LEGEND

- U-6 MONITORING WELL
- TW-1 TANK CAVITY WELL
- C-1 SPARGE POINT
- PROPERTY BOUNDARY
- . - . - TRENCHING
- x-x-x-x FENCE
- (6,190) DISSOLVED PHASE TPHg CONCENTRATION (µg/L)
- 5,000 — DISSOLVED PHASE TPHg ISOCONCENTRATION CONTOUR (µg/L) -DASHED WHERE INFERRED

NOTES:

TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 NS = NOT SAMPLED
 µg/L = MICROGRAMS PER LITER
 <50 = LESS THAN LABORATORY INDICATED REPORTING LIMITS

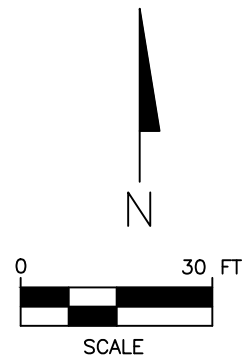
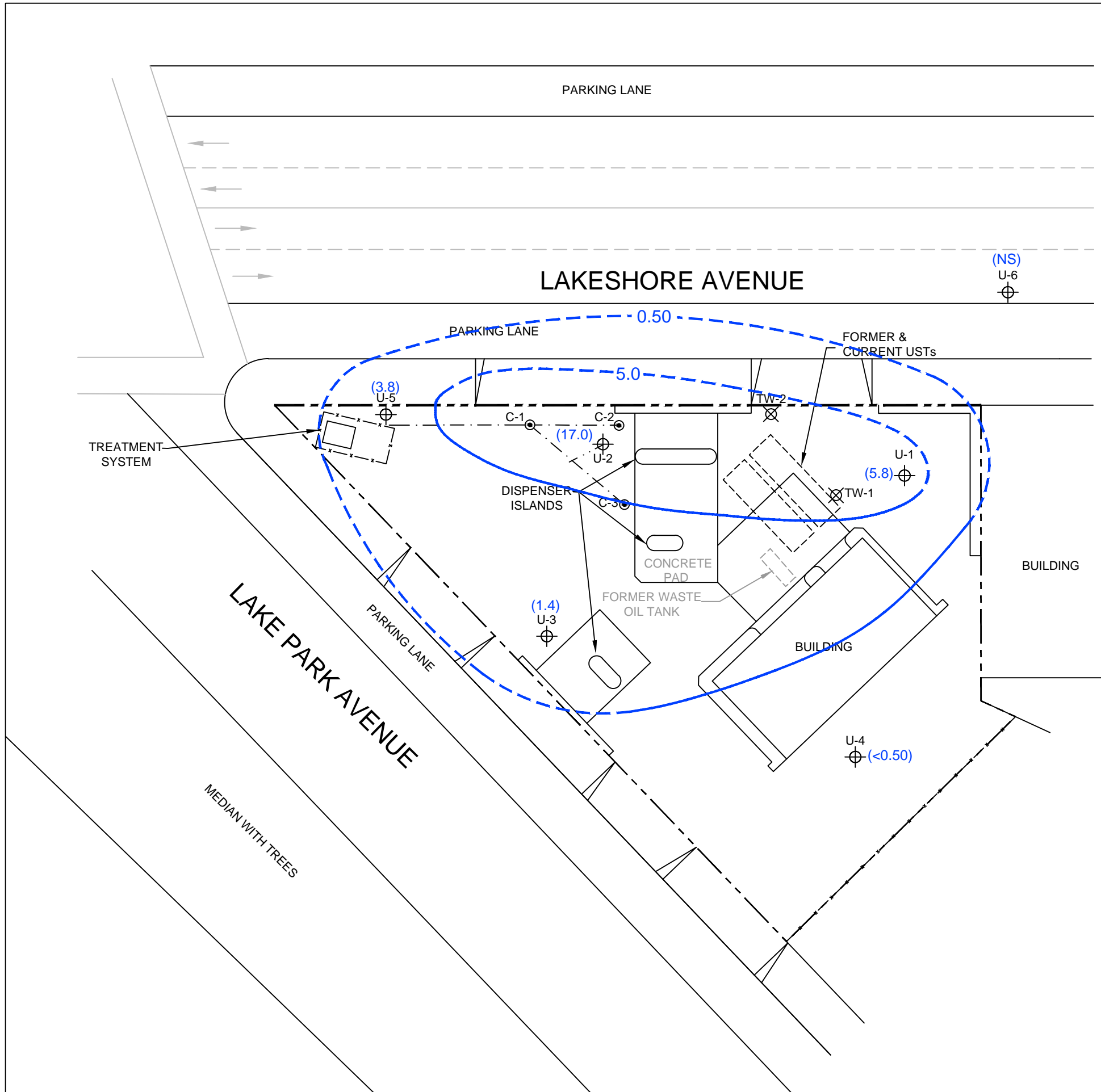


FIGURE 4
 DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
 DECEMBER 5, 2011
 76 SERVICE STATION NO. 5325
 3220 LAKESHORE DRIVE
 OAKLAND, CALIFORNIA

PROJECT NO. 140255325	PREPARED BY JF	DRAWN BY JH	
DATE 12/29/11	REVIEWED BY DD	FILE NAME 76-5325	



LEGEND

- U-6 MONITORING WELL
- TW-1 TANK CAVITY WELL
- C-1 SPARGE POINT
- PROPERTY BOUNDARY
- TRENCHING
- FENCE
- (5.8) DISSOLVED PHASE MTBE CONCENTRATION (µg/L)
- 5.0 DISSOLVED PHASE MTBE ISOCONCENTRATION CONTOUR (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 LIMITS

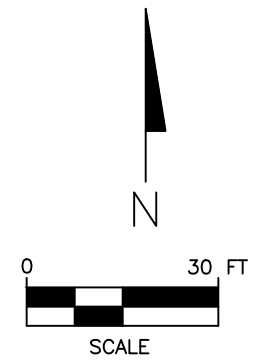
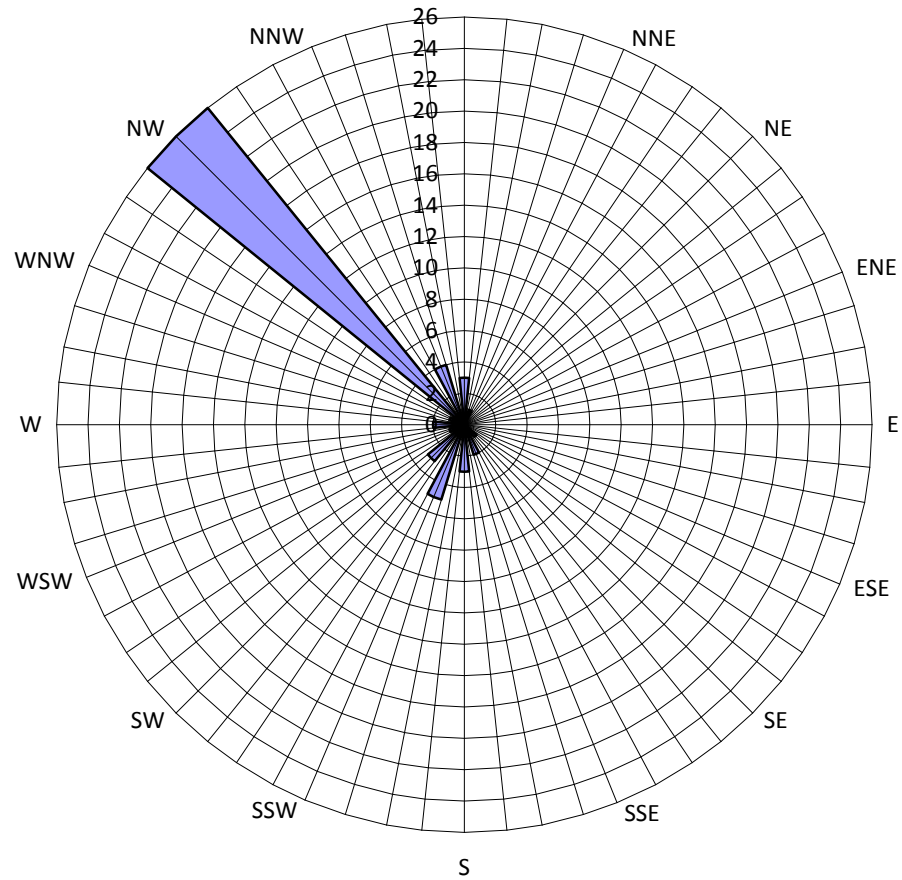


FIGURE 5
 DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
 DECEMBER 5, 2011
 76 SERVICE STATION NO. 5325
 3220 LAKESHORE DRIVE
 OAKLAND, CALIFORNIA

PROJECT NO. 140255325	PREPARED BY JF	DRAWN BY JH	
DATE 12/29/11	REVIEWED BY DD	FILE NAME 76-5325	

Figure 6
HISTORICAL GROUNDWATER FLOW DIRECTIONS
76 SERVICE STATION NO. 5325
3220 LAKESHORE AVENUE
OAKLAND, CALIFORNIA
N



Legend
Groundwater flow directions are based on data from the Third Quarter 1990 to the Fourth Quarter 2011. 52 data points shown.

Groundwater Flow Direction

Tables

Table 1	Current Groundwater Gauging and Analytical Data
Table 2	Historical Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Gradient and Flow Directions

TABLE 1
 CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
 76 Service Station No. 5325
 3200 LAKESHORE AVE
 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)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-1	12/5/2011	14.24	7.25	NP	6.99	6,190	<0.50	<0.50	1.1	<1.5	5.8	<0.50	<0.50	<0.50	872	<250	<1.0	<1.0
U-2	12/5/2011	13.45	5.60	NP	7.85	4,140	<0.50	<0.50	17.4	<1.5	17.0	<0.50	<0.50	<0.50	1,040	<250	<1.0	<1.0
U-3	12/5/2011	16.37	10.59	NP	5.78	<50.0	<0.50	<0.50	<0.50	<1.5	1.4	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
U-4	12/5/2011	16.55	8.98	NP	7.57	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
U-5	12/5/2011	12.77	5.83	NP	6.94	279	<0.50	<0.50	<0.50	<1.5	3.8	<0.50	<0.50	<0.50	86.6	<250	<1.0	<1.0
U-6	12/5/2011	12.88	5.35	NP	7.53	--	--	--	--	--	--	--	--	--	--	--	--	--

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 Hydrocarbon as gasoline
 MTBE- Methyl tertiary-butly ether
 TBA- Tertiary-butyl alcohol
 DIPE- Di-isopropyl ether
 ETBE- Ethyl tertiary-butyl ether
 TAME- Tertiary-amyl methyl ether

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5325
3200 LAKESHORE AVE
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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
U-1	8/10/1990	NSVD	NG	NG	NG	690	38	75	8.6	130	--	--	--	--	--	--	--	--	--	
	1/7/1991	NSVD	NG	NG	NG	250	22	16	4.2	17	--	--	--	--	--	--	--	--	--	
	4/1/1991	NSVD	NG	NG	NG	160	13	8.6	1.0	15	--	--	--	--	--	--	--	--	--	
	7/3/1991	NSVD	NG	NG	NG	140	21	4.3	0.36	17	--	--	--	--	--	--	--	--	--	
	10/9/1991	NSVD	NG	NG	NG	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
	2/12/1992	NSVD	NG	NG	NG	250	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	5/5/1992	NSVD	NG	NG	NG	230	1.2	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	6/11/1992	NSVD	NG	NG	NG	1000	80	1.4	6.7	41	--	--	--	--	--	--	--	--	--	--
	8/20/1992	NSVD	NG	NG	NG	400	1.0	ND	ND	0.6	--	--	--	--	--	--	--	--	--	--
	2/22/1993	NSVD	NG	NG	NG	34000	1400	5500	910	7300	--	--	--	--	--	--	--	--	--	--
	5/7/1993	NSVD	NG	NG	NG	8700	600	240	650	3300	--	--	--	--	--	--	--	--	--	--
	8/8/1993	NSVD	NG	NG	NG	4900	79	ND	832	270	--	--	--	--	--	--	--	--	--	--
	11/16/1993	5.32	8.60	NP	-3.28	690	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	2/16/1994	5.32	8.53	NP	-3.21	6800	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	6/22/1994	8.46	8.39	NP	0.07	200	ND	ND	5.9	21	--	--	--	--	--	--	--	--	--	--
	9/22/1994	8.46	8.65	NP	-0.19	6100	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	12/24/1994	8.46	8.03	NP	0.43	50000	2500	9700	2400	17000	--	--	--	--	--	--	--	--	--	--
	3/25/1995	8.46	7.71	0.36	1.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/21/1995	8.46	9.30	0.20	-0.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/19/1995	8.46	9.28	0.39	-0.53	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/19/1995	8.46	8.97	0.02	-0.50	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/18/1996	8.46	8.25	NP	0.21	27000	ND	2300	1400	11000	4900	--	--	--	--	--	--	--	--	--
	6/27/1996	8.46	7.92	NP	0.54	120000	540	4300	2600	26000	ND	--	--	--	--	--	--	--	--	--
	9/26/1996	8.46	9.10	0.02	-0.63	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/9/1996	8.46	6.88	0.03	1.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/14/1997	8.46	9.02	0.55	-0.15	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/30/1997	8.46	8.40	0.01	0.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/19/1997	8.46	8.56	0.02	-0.09	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/12/1997	8.46	8.57	0.00	-0.11	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	8.46	8.22	0.03	0.26	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/15/1998	8.46	8.36	NP	0.10	52000	ND	900	1800	13000	ND	--	--	--	--	--	--	--	--	--
	9/30/1998	8.46	8.93	NP	-0.47	1000000	ND	2600	13000	83000	4800	--	--	--	--	--	--	--	--	--
	12/28/1998	8.46	8.56	NP	-0.10	1100000	ND	1600	8600	71000	5700	--	--	--	--	--	--	--	--	--
	3/22/1999	8.46	8.18	NP	0.28	130000	470	1100	2000	28000	5700	--	--	--	--	--	--	--	--	--
	6/9/1999	8.46	9.36	NP	-0.90	40000	230	640	590	13000	3500	2100	--	--	--	--	--	--	--	--
	9/8/1999	8.46	9.52	NP	-1.06	55000	217	202	745	14300	6890	6690	--	--	--	--	--	--	--	--
	12/7/1999	8.46	9.67	NP	-1.21	41200	89.3	ND	385	6930	15800	14700	--	--	--	--	--	--	--	--
	3/13/2000	8.46	8.43	NP	0.03	48000	490	610	2400	10000	22000	23000	--	--	--	--	--	--	--	--
	6/21/2000	8.46	9.44	NP	-0.98	37000	200	ND	1200	7200	15000	20000	--	--	--	--	--	--	--	--
	9/27/2000	8.46	9.28	NP	-0.82	15000	92	ND	540	2800	74000	83000	ND	ND	ND	ND	--	ND	--	--
12/12/2000	8.46	9.36	NP	-0.90	50000	ND	ND	250	1900	12000	15000	--	--	--	--	--	--	--	--	
3/7/2001	8.46	8.44	NP	0.02	6220	29.8	10.4	96.3	638	11200	11800	ND	ND	ND	ND	--	ND	--	--	
6/6/2001	8.46	9.28	NP	-0.82	5200	17	ND	69	420	6500	8700	ND	ND	ND	ND	--	ND	--	--	
9/24/2001	8.46	9.39	NP	-0.93	4300	36	<25	65	590	4400	4400	<1000	<1000	<1000	<20000	<400000	<1000	<1000	<1000	
12/10/2001	8.46	9.17	NP	-0.71	11000	220	<100	380	1500	5100	5100	<100	<100	<100	<4000	<8000	<100	<100	<100	
3/11/2002	8.46	9.43	NP	-0.97	5500	28	<20	360	690	6400	6300	<100	<100	<100	<5000	<25000	<100	<100	<100	
6/4/2002	8.46	8.31	NP	0.15	4600	31	<10	240	180	6500	--	--	--	--	--	--	--	--	--	
9/3/2002	8.46	9.35	NP	-0.89	2300	<12	<12	<12	68	3500	4700	<200	<200	<200	<10000	<50000	<200	<200	<200	
12/3/2002	8.46	8.18	NP	0.28	<5000	<50	<50	<50	<100	--	4700	<200	<200	<200	<10000	<50000	<200	<200	<200	
3/4/2003	8.46	8.28	NP	0.18	8900	26	<25	400	130	--	5500	<100	<100	<100	<5000	<25000	<100	<100	<100	
6/18/2003	8.46	7.57	NP	0.89	8300	<25	<25	<25	<50	--	10000	<100	<100	<100	<5000	<25000	<100	<100	<100	
9/24/2003	8.46	8.18	NP	0.28	<10000	<100	<100	<100	<200	--	11000	<400	<400	<400	<20000	<100000	<400	<400	<400	

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5325
3200 LAKESHORE AVE
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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-1	12/2/2003	8.46	8.89	NP	-0.43	<10000	<100	<100	<100	<200	--	11000	--	--	--	--	<100000	--	--
	3/30/2004	8.46	8.38	NP	0.08	12000	<100	<100	190	<200	--	13000	<200	<100	<100	3100	<10000	<100	<100
	6/7/2004	8.46	10.35	NP	-1.89	13000	<100	<100	<100	<200	--	12000	<200	<100	<100	3300	<10000	<100	<100
	9/9/2004	8.46	dry	dry	dry	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	12/20/2004	8.46	9.00	NP	-0.54	<50	<0.50	<0.50	<0.50	<1.0	--	8.2	<1.0	<0.50	<0.50	11	<50	<0.50	<0.50
	3/28/2005	8.46	8.10	NP	0.36	37000	<10	<10	1500	5300	--	460	--	--	--	--	<1000	--	--
	6/14/2005	8.46	8.90	NP	-0.44	3900	<0.50	<0.50	48	68	--	60	<10	<10	<10	4400	<1000	<10	<10
	9/28/2005	8.46	11.35	NP	-2.89	560	<0.50	0.60	3.0	26	--	18	<10	<10	<10	5500	<250	<10	<10
	12/29/2005	8.46	8.57	NP	-0.11	510	0.77	<0.50	27	63	--	62	<0.50	<0.50	<0.50	3900	<250	<0.50	<0.50
	3/27/2006	8.46	7.19	NP	1.27	29000	<25	<25	1500	4900	--	300	--	--	--	--	<12000	--	--
	6/12/2006	8.46	7.80	NP	0.66	3200	<0.50	<0.50	42	15	--	56	--	--	--	--	<250	--	--
	9/21/2006	8.46	8.03	NP	0.43	2600	<12	<12	<12	<12	--	30	--	--	--	--	<6200	--	--
	12/21/2006	8.46	8.31	NP	0.15	2000	<0.50	<0.50	13	2.2	--	53	--	--	--	--	<250	--	--
	3/28/2007	8.46	6.17	NP	2.29	12000	<2.5	<2.5	690	1900	--	110	<2.5	<2.5	<2.5	1600	<1200	<2.5	<2.5
	6/27/2007	8.46	5.38	NP	3.08	13000	2.8	<2.5	960	1300	--	79	<2.5	<2.5	<2.5	1500	<1200	<2.5	<2.5
	9/26/2007	8.46	5.32	NP	3.14	6900	2.6	<2.5	310	680	--	44	--	--	--	--	<1200	--	--
	12/27/2007	8.46	8.11	NP	0.35	5900	<2.5	<2.5	290	130	--	42	--	--	--	--	<1200	--	--
	3/26/2008	8.46	7.84	NP	0.62	3500	<2.5	<2.5	100	18	--	30	--	--	--	--	<1200	--	--
	6/18/2008	8.46	7.03	NP	1.43	8400	<5.0	<5.0	230	86	--	26	--	--	--	--	<2500	--	--
	9/24/2008	8.46	6.90	NP	1.56	6000	3.3	<2.5	170	86	--	78	--	--	--	--	<1200	--	--
12/22/2008	8.46	7.69	NP	0.77	6400	0.64	<0.50	95	7.0	--	12	--	--	--	--	<250	--	--	
3/26/2009	8.46	7.55	NP	0.91	5700	<2.5	<2.5	72	6.5	--	10	--	--	--	--	<1200	--	--	
6/23/2009	8.46	6.80	NP	1.66	4,000	<2.5	<2.5	41	<0.50	--	10	--	--	--	--	<1200	--	--	
12/3/2009	8.46	7.30	NP	1.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/4/2009	--	--	--	--	8330	0.56	<0.50	13.5	1.6	--	10.9	<0.50	<0.50	<0.50	729	<250	<1.0	<1.0	
6/28/2010	8.46	6.71	NP	1.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/30/2010	--	--	--	--	7,090	<0.50	<0.50	2.1	2.2	--	5.1	<0.50	<0.50	<0.50	1110	<250	<1.0	<1.0	
12/20/2010	8.46	6.76	NP	1.70	6280	<0.50	<0.50	29.9	1.8	--	7.0	<0.50	<0.50	<0.50	391	<250	<1.0	<1.0	
6/3/2011	8.46	6.95	NP	1.51	6490	<0.50	<0.50	1.2	<1.5	--	6.1	<0.50	<0.50	<0.50	880	<250	<1.0	<1.0	
12/5/2011	14.24	7.25	NP	6.99	6190	<0.50	<0.50	1.1	<1.5	--	5.8	<0.50	<0.50	<0.50	872	<250	<1.0	<1.0	
U-2	8/10/1990	NSVD	NG	NG	NG	780	27	46	15	130	--	--	--	--	--	--	--	--	
	1/7/1991	NSVD	NG	NG	NG	1900	67	5.8	58	69	--	--	--	--	--	--	--	--	
	4/1/1991	NSVD	NG	NG	NG	1700	250	89	34	190	--	--	--	--	--	--	--	--	
	7/3/1991	NSVD	NG	NG	NG	2100	150	25	3.1	290	--	--	--	--	--	--	--	--	
	10/9/1991	NSVD	NG	NG	NG	230	7.1	ND	ND	11	--	--	--	--	--	--	--	--	
	2/12/1992	NSVD	NG	NG	NG	410	1.9	ND	0.36	0.4	--	--	--	--	--	--	--	--	
	5/5/1992	NSVD	NG	NG	NG	1600	120	52	6.2	290	--	--	--	--	--	--	--	--	
	6/11/1992	NSVD	NG	NG	NG	620	17	2.1	ND	37	--	--	--	--	--	--	--	--	
	8/20/1992	NSVD	NG	NG	NG	700	28	6.5	1.3	4.6	--	--	--	--	--	--	--	--	
	2/22/1993	NSVD	NG	NG	NG	3400	2400	2100	1200	5800	--	--	--	--	--	--	--	--	
	5/7/1993	NSVD	NG	NG	NG	17000	1800	660	1700	4000	--	--	--	--	--	--	--	--	
	8/8/1993	NSVD	NG	NG	NG	5600	420	ND	410	670	--	--	--	--	--	--	--	--	
	11/16/1993	4.53	8.17	NP	-3.64	510	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	2/16/1994	4.53	7.73	NP	-3.20	980	49	13	2.7	40	--	--	--	--	--	--	--	--	
	6/22/1994	7.62	7.59	NP	0.03	31000	2200	62	1500	3500	--	--	--	--	--	--	--	--	
	9/22/1994	7.62	7.92	NP	-0.30	8500	29	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/24/1994	7.62	7.26	NP	0.36	32000	1500	890	1300	5000	--	--	--	--	--	--	--	--	
	3/25/1995	7.62	7.01	NP	0.61	170000	1900	21000	4800	33000	--	--	--	--	--	--	--	--	
	6/21/1995	7.62	6.98	NP	0.64	16000	2100	ND	1800	1700	--	--	--	--	--	--	--	--	
	9/19/1995	7.62	7.69	NP	-0.07	3000	610	ND	78	240	--	--	--	--	--	--	--	--	
12/19/1995	7.62	7.30	NP	0.32	1600	140	55	52	270	--	--	--	--	--	--	--	--		
3/18/1996	7.62	6.44	NP	1.18	12000	2200	ND	1200	2200	22000	--	--	--	--	--	--	--		
6/27/1996	7.62	7.40	NP	0.22	28000	3400	ND	2800	3100	3000	--	--	--	--	--	--	--		

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5325
3200 LAKESHORE AVE
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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-2	9/26/1996	7.62	7.90	NP	-0.28	5900	750	ND	ND	ND	18000	--	--	--	--	--	--	--	--
	12/9/1996	7.62	6.76	NP	0.86	13000	5100	290	980	370	2700	--	--	--	--	--	--	--	--
	3/14/1997	7.62	7.11	0.02	0.53	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/30/1997	7.62	6.19	NP	1.43	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/19/1997	7.62	7.30	NP	0.32	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/12/1997	7.62	6.75	NP	0.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	7.62	6.36	NP	1.26	80000	3000	1100	820	16000	16000	--	--	--	--	--	--	--	--
	6/15/1998	7.62	6.51	NP	1.11	48000	1800	330	470	7900	20000	--	--	--	--	--	--	--	--
	9/30/1998	7.62	7.17	NP	0.45	60000	1300	ND	500	9700	19000	--	--	--	--	--	--	--	--
	12/28/1998	7.62	7.05	NP	0.57	63000	590	160	320	5600	16000	--	--	--	--	--	--	--	--
	3/22/1999	7.62	6.82	NP	0.80	28000	1100	ND	360	2900	25000	--	--	--	--	--	--	--	--
	6/9/1999	7.62	7.51	NP	0.11	21000	110	190	310	2600	7900	--	--	--	--	--	--	--	--
	9/8/1999	7.62	8.15	NP	-0.53	23300	477	138	286	4110	16400	15300	--	--	--	--	--	--	--
	12/7/1999	7.62	8.31	NP	-0.69	4840	17.2	ND	ND	157	14900	15600	--	--	--	--	--	--	--
	3/13/2000	7.62	6.69	NP	0.93	11000	380	160	ND	2100	22000	26000	--	--	--	--	--	--	--
	6/21/2000	7.62	7.67	NP	-0.05	9100	22	ND	ND	800	16000	22000	--	--	--	--	--	--	--
	9/27/2000	7.62	7.44	NP	0.18	2900	43	ND	ND	39	20000	26000	--	--	--	--	--	--	--
	12/12/2000	7.62	7.51	NP	0.11	3600	17	ND	ND	87	8000	7800	--	--	--	--	--	--	--
	3/7/2001	7.62	7.15	NP	0.47	1670	51.0	ND	7.20	19.5	5930	7900	ND	ND	ND	ND	ND	ND	ND
	6/6/2001	7.62	7.57	NP	0.05	1100	14	ND	9.3	35	9200	10000	ND	ND	ND	ND	ND	ND	ND
	9/24/2001	7.62	7.63	NP	-0.01	1000	25	<2.5	12	100	9800	11000	<1000	<1000	<1000	<20000	<400000	<1000	<1000
	12/10/2001	7.62	6.78	NP	0.84	83	14	0.55	3.4	6.8	2500	2500	<50	<50	<50	<2000	<4000	<50	<50
	3/11/2002	7.62	7.11	NP	0.51	<1000	28	<10	40	31	11000	11000	<200	<200	<200	<10000	<50000	<200	<200
	6/4/2002	7.62	7.17	NP	0.45	7700	32	<25	33	48	14000	--	--	--	--	--	--	--	--
	9/3/2002	7.62	7.57	NP	0.05	5200	<25	<25	<25	<25	11000	15000	<1000	<1000	<1000	<50000	<250000	<1000	<1000
	12/3/2002	7.62	7.67	NP	-0.05	<5000	<50	<50	<50	<100	--	3200	<200	<200	<200	<10000	<50000	<200	<200
	3/4/2003	7.62	7.76	NP	-0.14	8100	<50	<50	<50	<100	--	7800	<200	<200	<200	<10000	<50000	<200	<200
	6/18/2003	7.62	6.86	NP	0.76	11000	<50	<50	<50	<100	--	16000	<200	<200	<200	<10000	<50000	<200	<200
	9/24/2003	7.62	7.48	NP	0.14	<10000	<100	<100	<100	<200	--	10000	<400	<400	<400	<20000	<100000	<400	<400
	12/2/2003	7.62	7.94	NP	-0.32	<10000	<100	<100	<100	<200	--	10000	--	--	--	--	<100000	--	--
	3/30/2004	7.62	7.07	NP	0.55	12000	<100	<100	<100	<200	--	11000	<200	<100	<100	2400	<10000	<100	<100
	6/7/2004	7.62	7.75	NP	-0.13	14000	<100	<100	<100	<200	--	13000	<200	<100	<100	2600	<10000	<100	<100
	9/9/2004	7.62	8.64	NP	-1.02	<10000	<100	<100	<100	<200	--	9500	<200	<100	<100	2700	<10000	<100	<100
	12/20/2004	7.62	7.73	NP	-0.11	<5000	<50	<50	<50	<100	--	11000	<100	<50	<50	3500	<5000	<50	<50
	3/28/2005	7.62	6.23	NP	1.39	12000	<50	<50	160	120	--	7000	<50	<50	<0.50	830	<5000	<50	<50
	6/14/2005	7.62	7.05	NP	0.57	2000	0.75	<0.50	3.7	1.1	--	2400	<20	<20	<20	10000	<2000	<20	<20
	9/28/2005	7.62	8.00	NP	-0.38	320	<0.50	<0.50	<0.50	<1.0	--	80	<0.50	<0.50	<0.50	13000	<250	<0.50	<0.50
	12/29/2005	7.62	7.23	NP	0.39	<50	<0.50	<0.50	<0.50	<1.0	--	35	<0.50	<0.50	<0.50	11000	<250	<0.50	<0.50
	3/27/2006	7.62	5.30	NP	2.32	2400	31	0.73	120	15	--	1400	--	--	--	--	<250	--	--
	6/12/2006	7.62	6.25	NP	1.37	<1200	<12	<12	17	<25	--	490	--	--	--	--	<6200	--	--
9/21/2006	7.62	6.00	NP	1.62	440	6.1	<0.50	1.7	<0.50	--	1100	--	--	--	--	<250	--	--	
12/21/2006	7.62	6.07	NP	1.55	670	10	<0.50	52	1.2	--	730	--	--	--	--	<250	--	--	
3/28/2007	7.62	5.05	NP	2.57	3300	36	<5.0	200	6.8	--	1200	<5.0	<5.0	<5.0	4000	<2500	<5.0	<5.0	
6/27/2007	7.62	4.80	NP	2.82	5100	94	<5.0	640	7.1	--	1100	<5.0	<5.0	<5.0	3000	<2500	<5.0	<5.0	
9/26/2007	7.62	4.73	NP	2.89	3900	54	<5.0	240	240	--	670	--	--	--	--	<2500	--	--	
12/27/2007	7.62	5.80	NP	1.82	2200	21	<5.0	77	16	--	470	--	--	--	--	<2500	--	--	
3/26/2008	7.62	5.61	NP	2.01	4300	45	<2.5	210	77	--	580	--	--	--	--	<1200	--	--	
6/18/2008	7.62	5.30	NP	2.32	5400	31	<5.0	270	38	--	250	--	--	--	--	<2500	--	--	
9/24/2008	7.62	5.09	NP	2.53	4400	24	<0.50	190	24	--	300	--	--	--	--	<250	--	--	
12/22/2008	7.62	4.98	NP	2.64	6200	24	<0.50	160	31	--	160	--	--	--	--	<250	--	--	
3/26/2009	7.62	5.17	NP	2.45	5200	8.9	<2.5	47	22	--	150	--	--	--	--	<1200	--	--	
6/23/2009	7.62	4.90	NP	2.72	2900	11	<2.5	140	7.2	--	150	--	--	--	--	<1200	--	--	

TABLE 2
 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
 76 Service Station No. 5325
 3200 LAKESHORE AVE
 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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-3	12/3/2002	10.98	10.65	NP	0.33	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	3/4/2003	10.98	10.76	NP	0.22	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	6/18/2003	10.98	10.26	NP	0.72	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	9/24/2003	10.98	10.88	NP	0.10	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	12/2/2003	10.98	11.00	NP	-0.02	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	3/30/2004	10.98	10.64	NP	0.34	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	6/7/2004	10.98	11.00	NP	-0.02	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	9/9/2004	10.98	11.31	NP	-0.33	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	12/20/2004	10.98	10.78	NP	0.20	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	3/28/2005	10.98	9.80	NP	1.18	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	6/14/2005	10.98	10.75	NP	0.23	<50	<0.50	<0.50	<0.50	1.2	--	<0.50	--	--	--	--	<50	--	--
	9/28/2005	10.98	11.15	NP	-0.17	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	12/29/2005	10.98	10.40	NP	0.58	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/27/2006	10.98	10.15	NP	0.83	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/12/2006	10.98	9.93	NP	1.05	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/21/2006	10.98	11.01	NP	-0.03	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/21/2006	10.98	10.92	NP	0.06	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	3/28/2007	10.98	10.84	NP	0.14	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/27/2007	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	9/26/2007	10.98	11.01	NP	-0.03	770	<0.50	<0.50	<0.50	<0.50	--	18	--	--	--	--	<250	--	--
	12/27/2007	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<1.0	--	0.63	--	--	--	--	<250	--	--
	3/26/2008	10.98	10.84	NP	0.14	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/18/2008	10.98	10.89	NP	0.09	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/24/2008	10.98	10.89	NP	0.09	<50	<0.50	<0.50	<0.50	<1.0	--	0.87	--	--	--	--	<250	--	--
	12/22/2008	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/26/2009	10.98	10.69	NP	0.29	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
6/23/2009	10.98	10.40	NP	0.58	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	--	--	--	<250	--	--	
12/3/2009	10.98	11.10	NP	-0.12	<50	<0.50	<0.50	<0.50	<1.0	--	1.2	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
6/28/2010	10.98	10.67	NP	0.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/30/2010	10.98	10.74	NP	0.24	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
12/20/2010	10.98	10.37	NP	0.61	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.91	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
6/3/2011	10.98	10.54	NP	0.44	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.73	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
12/5/2011	16.37	10.59	NP	5.78	<50.0	<0.50	<0.50	<0.50	<1.5	--	1.4	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
U-4	6/22/1994	11.15	10.15	NP	1.00	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/22/1994	11.15	10.78	NP	0.37	ND	0.78	1.3	ND	1.4	--	--	--	--	--	--	--	--	
	12/24/1994	11.15	9.81	NP	1.34	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	3/25/1995	11.15	9.51	NP	1.64	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	6/21/1995	11.15	9.53	NP	1.62	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/19/1995	11.15	10.17	NP	0.98	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	12/19/1995	11.15	9.97	NP	1.18	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	3/18/1996	11.15	9.65	NP	1.50	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	6/27/1996	11.15	9.73	NP	1.42	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/26/1996	11.15	10.14	NP	1.01	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	12/9/1996	11.15	8.67	NP	2.48	ND	ND	ND	ND	ND	33	--	--	--	--	--	--	--	
	3/14/1997	11.15	9.35	NP	1.80	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/30/1997	11.15	9.89	NP	1.26	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	9/19/1997	11.15	9.96	NP	1.19	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	12/12/1997	11.15	8.56	NP	2.59	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	3/3/1998	11.15	7.84	NP	3.31	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/15/1998	11.15	9.07	NP	2.08	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
9/30/1998	11.15	9.75	NP	1.40	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
12/28/1998	11.15	9.59	NP	1.56	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
3/22/1999	11.15	8.34	NP	2.81	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5325
3200 LAKESHORE AVE
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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-5	6/21/1995	6.98	7.11	NP	-0.13	400	2.3	ND	9.1	3.5	--	--	--	--	--	--	--	--	--
	9/19/1995	6.98	6.98	NP	0.00	850	14	7.1	13	66	--	--	--	--	--	--	--	--	--
	12/19/1995	6.98	7.17	NP	-0.19	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	3/18/1996	6.98	6.65	NP	0.33	100	0.67	0.5	0.51	5.4	--	--	--	--	--	--	--	--	--
	6/27/1996	6.98	6.48	NP	0.50	16000	280	150	1400	4600	530	--	--	--	--	--	--	--	--
	9/26/1996	6.98	7.13	NP	-0.15	ND	ND	0.57	ND	0.96	ND	--	--	--	--	--	--	--	--
	12/9/1996	6.98	5.90	NP	1.08	1300	29	46	ND	140	97	--	--	--	--	--	--	--	--
	3/14/1997	6.98	6.98	NP	0.00	ND	ND	ND	ND	ND	14	--	--	--	--	--	--	--	--
	6/30/1997	6.98	7.07	NP	-0.09	4200	74	51	180	980	270	--	--	--	--	--	--	--	--
	9/19/1997	6.98	6.78	NP	0.20	6300	160	13	370	1000	480	--	--	--	--	--	--	--	--
	12/12/1997	6.98	6.94	NP	0.04	60	1.3	ND	1.6	2.1	47	--	--	--	--	--	--	--	--
	3/3/1998	6.98	6.50	NP	0.48	1700	29	ND	150	190	330	--	--	--	--	--	--	--	--
	6/15/1998	6.98	6.84	NP	0.14	1500	32	ND	91	83	330	--	--	--	--	--	--	--	--
	9/30/1998	6.98	7.30	NP	-0.32	1700	44	ND	39	150	60	--	--	--	--	--	--	--	--
	12/28/1998	6.98	7.25	NP	-0.27	1400	59	ND	13	27	150	--	--	--	--	--	--	--	--
	3/22/1999	6.98	6.86	NP	0.12	780	8.9	ND	0.76	4.5	350	--	--	--	--	--	--	--	--
	6/9/1999	6.98	7.28	NP	-0.30	1000	ND	ND	10	35	280	350	--	--	--	--	--	--	--
	9/8/1999	6.98	7.51	NP	-0.53	2620	26.2	ND	32.2	157	280	239	--	--	--	--	--	--	--
	12/7/1999	6.98	7.67	NP	-0.69	949	9.26	ND	11.2	22.7	235	301	--	--	--	--	--	--	--
	3/13/2000	6.98	6.73	NP	0.25	880	12	1.0	5.6	8.7	46	37	--	--	--	--	--	--	--
	6/21/2000	6.98	7.38	NP	-0.40	700	4.0	ND	0.99	4.0	120	140	--	--	--	--	--	--	--
	9/27/2000	6.98	7.44	NP	-0.46	400	1.9	ND	ND	1.5	160	250	--	--	--	--	--	--	--
	12/12/2000	6.98	7.67	NP	-0.69	770	3.2	ND	ND	ND	27	13	--	--	--	--	--	--	--
	3/7/2001	6.98	6.82	NP	0.16	623	5.15	ND	ND	0.669	35.7	43.4	ND	ND	ND	ND	ND	ND	ND
	6/6/2001	6.98	7.42	NP	-0.44	110	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/24/2001	6.98	7.50	NP	-0.52	270	<0.50	<0.50	<0.50	<0.50	40	42	<10	<10	<10	<200	<4000	<10	<10
	12/10/2001	6.98	6.65	NP	0.33	420	13	0.60	0.66	<0.50	<2.5	--	--	--	--	--	--	--	--
	3/11/2002	6.98	7.00	NP	-0.02	260	<0.50	<0.50	<0.50	<0.50	42	47	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	6/4/2002	6.98	6.71	NP	0.27	170	<0.50	0.77	0.87	0.69	29	--	--	--	--	--	--	--	--
	9/3/2002	6.98	7.46	NP	-0.48	<50	<0.50	<0.50	<0.50	<0.50	37	53	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	12/3/2002	6.98	6.63	NP	0.35	320	<0.50	<0.50	5.7	<1.0	--	11	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	3/4/2003	6.98	6.75	NP	0.23	100	<0.50	<0.50	<0.50	<1.0	--	44	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	6/18/2003	6.98	6.25	NP	0.73	51	<0.50	<0.50	<0.50	<1.0	--	36	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	9/24/2003	6.98	6.86	NP	0.12	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	12/2/2003	6.98	7.11	NP	-0.13	<50	<0.50	<0.50	<0.50	<1.0	--	24	--	--	--	--	<500	--	--
	3/30/2004	6.98	6.88	NP	0.10	100	<0.50	<0.50	<0.50	<1.0	--	130	<1.0	<0.50	<0.50	52	<50	<0.50	<0.50
	6/7/2004	6.98	8.52	NP	-1.54	250	<0.50	<0.50	<0.50	<1.0	--	160	<1.0	<0.5	<0.5	69	<50	<0.5	<0.5
	9/9/2004	6.98	12.27	NP	-5.29	340	<0.50	<0.50	<0.50	<1.0	--	260	<1.0	<0.50	<0.50	130	<50	<0.50	<0.50
	12/20/2004	6.98	7.51	NP	-0.53	130	<0.50	<0.50	1.9	2.0	--	120	--	--	--	--	<50	--	--
	3/28/2005	6.98	7.21	NP	-0.23	670	<2.0	<2.0	<2.0	<4.0	--	230	<0.50	<0.50	<0.50	150	<50	<0.50	<0.50
6/14/2005	6.98	7.46	NP	-0.48	160	<0.50	<0.50	<0.50	<1.0	--	400	<0.50	<0.50	<0.50	160	<100	<0.50	<0.50	
9/28/2005	6.98	9.59	NP	-2.61	460	<0.50	<0.50	<0.50	<1.0	--	370	<0.50	<0.50	<0.50	220	<250	<0.50	<0.50	
12/29/2005	6.98	7.53	NP	-0.55	150	<0.50	<0.50	<0.50	<1.0	--	190	<0.50	<0.50	<0.50	280	<250	<0.50	<0.50	
3/27/2006	6.98	6.28	NP	0.70	450	<0.50	<0.50	8.3	<1.0	--	70	--	--	--	--	<250	--	--	
6/12/2006	6.98	6.44	NP	0.54	370	<0.50	<0.50	<0.50	<1.0	--	61	--	--	--	--	<250	--	--	
9/21/2006	6.98	6.59	NP	0.39	130	<0.50	<0.50	<0.50	<0.50	--	35	--	--	--	--	<250	--	--	
12/21/2006	6.98	6.92	NP	0.06	230	<0.50	<0.50	0.58	<0.50	--	11	--	--	--	--	<250	--	--	
3/28/2007	6.98	5.11	NP	1.87	400	<0.50	<0.50	5.4	<0.50	--	13	<0.50	<0.50	<0.50	870	<250	<0.50	<0.50	
6/27/2007	6.98	4.40	NP	2.58	210	<0.50	<0.50	2.4	<0.50	--	18	<0.50	<0.50	<0.50	220	<250	<0.50	<0.50	
9/26/2007	6.98	4.71	NP	2.27	740	<0.50	<0.50	<0.50	<0.50	--	18	--	--	--	--	<250	--	--	
12/27/2007	6.98	6.76	NP	0.22	180	<0.50	<0.50	<0.50	<1.0	--	18	--	--	--	--	<250	--	--	
3/26/2008	6.98	6.40	NP	0.58	310	<0.50	0.64	1.3	1.0	--	27	--	--	--	--	<250	--	--	

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5325
3200 LAKESHORE AVE
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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
U-5	6/18/2008	6.98	5.71	NP	1.27	790	<0.50	<0.50	2.4	<1.0	--	22	--	--	--	--	<250	--	--	
	9/24/2008	6.98	5.44	NP	1.54	860	1.2	<0.50	3.2	3.7	--	16	--	--	--	--	<250	--	--	
	12/22/2008	6.98	6.82	NP	0.16	620	<0.50	<0.50	0.54	1.3	--	13	--	--	--	--	<250	--	--	
	3/26/2009	6.98	6.19	NP	0.79	310	<0.50	<0.50	<0.50	<1.0	--	9.4	--	--	--	--	<250	--	--	
	6/23/2009	6.98	5.50	NP	1.48	80	<0.50	<0.50	<0.50	<1.0	--	7.1	--	--	--	--	<250	--	--	
	12/3/2009	6.98	6.02	NP	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/4/2009	--	--	--	--	160	<0.50	<0.50	<0.50	<1.0	--	4.6	<0.50	<0.50	<0.50	79.4	<250	<1.0	<1.0	
	6/28/2010	6.98	5.51	NP	1.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	6.98	5.71	NP	1.27	144	<0.50	<0.50	<0.50	<1.5	--	3.8	<0.50	<0.50	<0.50	66.6	<250	<1.0	<1.0	
	12/20/2010	6.98	5.82	NP	1.16	164	<0.50	<0.50	<0.50	<1.5	--	3.9	<0.50	<0.50	<0.50	67.7	<250	<1.0	<1.0	
	6/3/2011	6.98	6.05	NP	0.93	85.0	<0.50	<0.50	<0.50	<1.5	--	3.0	<0.50	<0.50	<0.50	61.6	<250	<1.0	<1.0	
12/5/2011	12.77	5.83	NP	6.94	279	<0.50	<0.50	<0.50	<1.5	--	3.8	<0.50	<0.50	<0.50	86.6	<250	<1.0	<1.0		
U-6	6/22/1994	7.14	7.13	NP	0.01	7.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	9/22/1994	7.14	7.34	NP	-0.20	130	1.3	0.8	ND	0.73	--	--	--	--	--	--	--	--	--	
	12/24/1994	7.14	6.67	NP	0.47	6900	500	59	600	380	--	--	--	--	--	--	--	--	--	
	3/25/1995	7.14	6.28	NP	0.86	47000	450	1300	1700	8200	--	--	--	--	--	--	--	--	--	
	6/21/1995	7.14	7.59	NP	-0.45	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
	9/19/1995	7.14	7.69	NP	-0.55	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
	12/19/1995	7.14	7.75	NP	-0.61	210	2.5	1.0	2.9	17	--	--	--	--	--	--	--	--	--	
	3/18/1996	7.14	6.86	NP	0.28	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
	6/27/1996	7.14	6.51	NP	0.63	ND	ND	ND	ND	ND	510	--	--	--	--	--	--	--	--	
	9/26/1996	7.14	7.61	NP	-0.47	ND	ND	ND	ND	ND	1400	--	--	--	--	--	--	--	--	
	12/9/1996	7.14	5.88	NP	1.26	1200	29	48	6.4	140	58	--	--	--	--	--	--	--	--	
	3/14/1997	7.14	7.30	NP	-0.16	ND	ND	ND	ND	ND	1500	--	--	--	--	--	--	--	--	
	6/30/1997	7.14	7.34	NP	-0.20	ND	ND	ND	ND	ND	990	--	--	--	--	--	--	--	--	
	9/19/1997	7.14	7.25	NP	-0.11	ND	ND	ND	ND	ND	1400	--	--	--	--	--	--	--	--	
	12/12/1997	7.14	7.28	NP	-0.14	ND	ND	ND	ND	ND	680	--	--	--	--	--	--	--	--	
	3/3/1998	7.14	7.00	NP	0.14	ND	ND	ND	ND	ND	1600	--	--	--	--	--	--	--	--	
	6/15/1998	7.14	7.17	NP	-0.03	ND	ND	ND	ND	ND	1000	--	--	--	--	--	--	--	--	
	9/30/1998	7.14	7.90	NP	-0.76	ND	ND	ND	ND	ND	1200	--	--	--	--	--	--	--	--	
	12/28/1998	7.14	7.78	NP	-0.64	ND	ND	ND	ND	ND	730	--	--	--	--	--	--	--	--	
	3/22/1999	7.14	7.46	NP	-0.32	ND	ND	ND	ND	ND	1800	--	--	--	--	--	--	--	--	
	6/9/1999	7.14	7.73	NP	-0.59	ND	ND	ND	ND	ND	1000	850	--	--	--	--	--	--	--	
	9/8/1999	7.14	7.94	NP	-0.80	ND	ND	ND	ND	ND	851	1040	--	--	--	--	--	--	--	
	12/7/1999	7.14	8.10	NP	-0.96	ND	ND	ND	ND	ND	1140	1150	--	--	--	--	--	--	--	
	3/13/2000	7.14	6.94	NP	0.20	ND	ND	ND	ND	ND	560	670	--	--	--	--	--	--	--	
	6/21/2000	7.14	7.84	NP	-0.70	ND	ND	ND	ND	ND	400	590	--	--	--	--	--	--	--	
	9/27/2000	7.14	7.67	NP	-0.53	ND	ND	ND	ND	ND	2500	2800	--	--	--	--	--	--	--	
	12/12/2000	7.14	7.73	NP	-0.59	ND	ND	ND	ND	ND	590	580	--	--	--	--	--	--	--	
	3/7/2001	7.14	7.26	NP	-0.12	ND	ND	ND	ND	ND	310	321	ND	ND	ND	ND	ND	ND	ND	
	6/6/2001	7.14	7.80	NP	-0.66	ND	ND	ND	ND	ND	250	330	ND	ND	ND	ND	ND	ND	ND	
	9/24/2001	7.14	7.82	NP	-0.68	<50	<0.50	<0.50	<0.50	<0.50	530	660	<100	<100	<100	<2000	<40000	<100	<100	
	12/10/2001	7.14	7.15	NP	-0.01	<50	<0.50	<0.50	<0.50	<0.50	220	220	<5.0	<5.0	<5.0	<200	<400	<5.0	<5.0	
	3/11/2002	7.14	7.32	NP	-0.18	<50	<0.50	<0.50	<0.50	<0.50	720	760	<8.0	<8.0	<8.0	<400	<2000	<8.0	<8.0	
	6/4/2002	7.14	7.17	NP	-0.03	250	<1.0	<1.0	<1.0	<1.0	470	--	--	--	--	--	--	--	--	
9/3/2002	7.14	7.71	NP	-0.57	420	<2.5	<2.5	<2.5	4.7	860	1200	<40	<40	<40	<2000	<10000	<40	<40		
12/3/2002	7.14	6.92	NP	0.22	<500	<5.0	<5.0	<5.0	<10	--	870	<20	<20	<20	<1000	<5000	<20	<20		
3/4/2003	7.14	7.01	NP	0.13	2300	<10	<10	<10	<20	--	2700	<40	<40	<40	<2000	<10000	<40	<40		
6/18/2003	7.14	6.59	NP	0.55	1300	<10	<10	<10	<20	--	1700	<40	<40	<40	<2000	<10000	<40	<40		
9/24/2003	7.14	7.23	NP	-0.09	<10000	<100	<100	<100	<200	--	1500	<400	<400	<400	<20000	<100000	<400	<400		
12/2/2003	7.14	7.80	NP	-0.66	1300	<10	<10	<10	<20	--	1800	--	--	--	--	<10000	--	--		
3/30/2004	7.14	7.32	NP	-0.18	1200	<10	<10	<10	<20	--	1700	<20	<10	<10	770	<1000	<10	<10		
6/7/2004	7.14	9.35	NP	-2.21	1700	<10	<10	<10	<20	--	1800	<20	<10	<10	110	<1000	<10	<10		
9/9/2004	7.14	12.81	NP	-5.67	<1000	<10	<10	<10	<20	--	1400	<20	<10	<10	1900	<1000	<10	<10		
12/20/2004	7.14	7.96	NP	-0.82	320	<2.5	<2.5	<2.5	<5.0	--	65	<5.0	<2.5	<2.5	5000	<250	<2.5	<2.5		

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 5325
3200 LAKESHORE AVE
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 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
U-6	3/28/2005	7.14	7.07	NP	0.07	<50	<0.50	<0.50	<0.50	<1.0	--	150	<0.50	<0.50	<0.50	990	--	<2.5	<0.50	
	6/14/2005	7.14	7.88	NP	-0.74	<100	<1.0	<1.0	<1.0	<2.0	--	20	<0.50	<0.50	<0.50	<5.0	<100	<0.5	<0.5	
	9/28/2005	7.14	10.43	NP	-3.29	150	<0.50	<0.50	<0.50	<1.0	--	4.6	<0.50	<0.50	<0.50	3800	<250	<0.50	<0.50	
	12/29/2005	7.14	7.63	NP	-0.49	<50	<0.50	<0.50	<0.50	<1.0	--	13	<0.50	<0.50	<0.50	1100	<250	<0.50	<0.50	
	3/27/2006	7.14	6.15	NP	0.99	<50	<0.50	<0.50	<0.50	<1.0	--	8.1	--	--	--	--	<250	--	--	
	6/12/2006	7.14	6.59	NP	0.55	<50	<0.50	<0.50	<0.50	<1.0	--	6.9	--	--	--	--	<250	--	--	
	9/21/2006	7.14	6.90	NP	0.24	<50	<0.50	<0.50	<0.50	<0.50	--	3.1	--	--	--	--	<250	--	--	
	12/21/2006	7.14	7.36	NP	-0.22	<50	<0.50	<0.50	<0.50	<0.50	--	1.2	--	--	--	--	<250	--	--	
	3/28/2007	7.14	3.48	NP	3.66	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	6/27/2007	7.14	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	9/26/2007	7.14	2.71	NP	4.43	54	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	12/27/2007	7.14	6.96	NP	0.18	<50	<0.50	<0.50	<0.50	<1.0	--	2.4	--	--	--	--	<250	--	--	
	3/26/2008	7.14	6.55	NP	0.59	<50	<0.50	<0.50	<0.50	<1.0	--	2.3	--	--	--	--	<250	--	--	
	6/18/2008	7.14	6.71	NP	0.43	<50	<0.50	<0.50	<0.50	<1.0	--	0.59	--	--	--	--	<250	--	--	
	9/24/2008	7.14	5.50	NP	1.64	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	12/22/2008	7.14	6.48	NP	0.66	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	3/26/2009	7.14	6.09	NP	1.05	<250	<2.5	<2.5	<2.5	<5.0	--	<2.5	--	--	--	--	<1200	--	--	
	6/23/2009	7.14	4.80	NP	2.34	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
12/3/2009	7.14	5.31	NP	1.83	<50	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0		
6/28/2010	7.14	4.77	NP	2.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/30/2010	7.14	4.97	NP	2.17	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	11.4	<250	<1.0	<1.0		
12/20/2010	7.14	4.59	NP	2.55	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0		
6/3/2011	7.14	5.26	NP	1.88	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0		
12/5/2011	12.88	5.35	NP	7.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

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
WI - Well Inaccessible
NSVD - Not surveyed
DRY - Well is dry
-- - No information available

Analytical Notes:

< - Below laboratory's indicated reporting limit
DRY - Well was Dry; sample could not be taken
LPH - Liquid Phase Hydrocarbons
ND - Not detected, and detection limit is not known
ug/L - micrograms/liter
WI - Well Inaccessible
TPHg- Total Petroleum Hydrocarbon 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

TABLE 3
Historical Groundwater Gradient and Flow Directions

76 Service Station No. 5325
 3220 Lakeshore Avenue
 Oakland, CA

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	
5325	6/14/2005	0.0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	9/28/2005	0.0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	12/29/2005	0.0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	3/27/2006	0.0250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	6/12/2006	0.0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	9/21/2006	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/21/2006	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3/28/2007	0.0100	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	6/27/2007	0.0300	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	9/26/2007	0.0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	12/27/2007	0.0200	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	3/6/2008	0.0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	6/18/2008	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9/24/2008	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/22/2008	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3/26/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/23/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/3/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/28/2009	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/28/2010	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12/20/2010	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6/3/2011	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12/5/2012	Varies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0.024 Average	3	1	0	0	0	0	1	2	3	5	3	1	2	1	26	4	

Explanation

NA = Not available
 Number of Events = 78

Semi-Annual Summary Report, July through December 2011
76 Service Station No. 5325
Oakland, CA
Antea Group Project No. I40255325



Attachment A

Summary of Previous Environmental Investigations

SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

May 1990 Three exploratory soil borings were advanced adjacent to the UST complex to depths ranging from 10 to 12.5 feet below ground surface (bgs). Soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and benzene, toluene, ethylbenzene, and xylenes (BTEX). The samples contained TPH-G concentrations ranging from 2 to 7,500 parts per million (ppm) and benzene concentrations ranging from 0.14 to 13 ppm.

June 1990 Two 10,000-gallon gasoline USTs, one 550-gallon waste oil UST, and related product dispensers were replaced. Soil samples from the UST excavation sidewalls and bottom and product line trenches were reported to contain TPH-G and benzene at concentrations ranging from 12 to 2,800 ppm and 0.008 to 11 ppm, respectively. Approximately 250 cubic yards of soil and backfill material were aerated onsite to reduce concentrations to below 100 ppm TPH-G, then transported to an appropriate soil disposal facility. Groundwater was encountered at approximately 7.5 feet bgs.

September 1990 Monitoring wells U-1, U-2, and U-3 were installed. TPH-G was detected in soil samples collected from the capillary fringe in well borings U-1 and U-2 at levels of 110 and 480 ppm, respectively. Benzene was detected in the soil sample from well boring U-1 at a level of 4.5 ppm. Petroleum hydrocarbons were not detected in soil or groundwater samples from U-3. Groundwater samples collected from wells U-1 and U-2 were reported to contain 690 and 38 parts per billion (ppb) TPH-G and 780 and 27 ppb benzene, respectively.

June 1990 Monitoring wells U-4, U-5, and U-6 were installed. TPH-G and benzene were detected in the capillary fringe soil sample collected from boring U-5 at levels of 400 ppm and 1.9 ppm, respectively. TPH-G and benzene were not detected in soil samples collected from borings U-4 and U-6. Groundwater levels stabilized at depths between 8.8 and 9.2 feet bgs.

November 1996 One 550-gallon waste oil UST was removed and the product lines and dispensers were replaced. A soil sample collected from the sidewall of the waste oil UST excavation contained 1.5 ppm total petroleum hydrocarbons as diesel (TPH-D) and 78 ppm total oil and grease (TOG). TPH-G, benzene, methyl tertiary butyl ether (MTBE), halogenated volatile organic compounds (HVOCs), and semi-volatile organic compounds (SVOCs) were not detected. Product line trench excavation and over excavation samples were reported to contain petroleum hydrocarbon levels ranging from non-detect to 880 ppm of TPH-G, non-detect to 3.6 ppm of benzene, and non-detect to 23 ppm of MTBE. Approximately 276 tons of excavated soil was transported to an appropriate disposal facility.

June 1997 Two exploratory borings (U-D and U-E) and one UST observation well were installed. U-D was advanced offsite on Lakeshore Avenue. TPH-G, BTEX, and MTBE were detected in one or all of the soil samples collected at the capillary fringe from the soil borings. TPH-G and MTBE were detected at a maximum of 450 ppm and 1.1 ppm, respectively, in U-D.

October 2003 Site environmental consulting responsibilities were transferred to TRC.



April 2006 Three ozone sparge wells (C-1 through C-3) were installed by TRC in the vicinity of U-2 for the purpose of an ozone pilot study. Total purgeable petroleum hydrocarbons (TPPH) were detected at a maximum of 4,600 milligrams per kilograms (mg/kg) in the five feet below grade (fbg) soil sample collected from C-1.

June through August 2006 A 3-month ozone sparge event was completed on sparge points C-1 through C-3 located in the vicinity of Site well U-2 using a mobile ozone sparge treatment system.

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

January 2011 Delta Consultants rebranded to Antea Group.

REMIEDIATION

June through August 2006 A 3-month ozone sparge event was completed on sparge points C-1 through C-3 located in the vicinity of Site well U-2 using a mobile ozone sparge treatment system.

SENSITIVE RECEPTORS SURVEY

Lake Merritt is located approximately 0.3 miles down gradient. No domestic water wells are located within a one mile distance of the site.

Current Consultant: Antea Group

Semi-Annual Summary Report, July through December 2011
76 Service Station No. 5325
Oakland, CA
Antea Group Project No. I40255325



Attachment 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.

Semi-Annual Summary Report, July through December 2011
76 Service Station No. 5325
Oakland, CA
Antea Group Project No. I40255325



Attachment C

Blaine Tech Services Groundwater Sampling Field Data Sheets

Groundwater Sampling Form

Site Address:	3200 LAKESHORE AVE, OAKLAND		
Project No:	255325	Field Technician:	CK
Field Point:	U-1	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	7.25	Well Diameter (in):	2 4 6 8 <u>3</u>
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	13.50	Water Column Height (ft):	6.25

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>6.25</u>	X Conversion Factor (gal/ft): <u>0.37</u>	= Casing Volume (gal): <u>2.3</u>
Casing Volume (gal): <u>2.3</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>6.9</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time:	Stop Time:	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												
			1211	20.1	6.94	936	-121.5	15	0.58	1.1		
			1212	20.3	6.99	935	-131.6	19	0.40	2.3		
			1213	20.4	7.04	987	-140.7	17	0.31	3.4		
			1214	20.6	7.06	1021	-142.6	15	0.28	4.6		
				WELL DEWATERED @ 50 gallons							5.0	1210
			1409	19.7	6.91	958	-100.2	6	1.18	—		
Post-Purge												

Did Well dewater?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Purge volume (gal):	5.0
Other Comments:	80%: 8.50 DTW: 7.77 *PURGED THROUGH FLOW CELL		

Sample Info:	
Sample ID:	U-1 - 20111231
Sample Date and Time:	12/5/11 1410
Selected Analysis:	SEE COC

This form was provided by Antea Group and completed by: (Print Full Name) COREY KILPATRICK, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 12/5/11



LNAPL = light non-aqueous phase liquids
 bgs = below ground surface
 ORP = Oxidation-Reduction Potential
 D.O. = dissolved oxygen

gal = gallon/s
 temp = temperature
 NTU = Nephelometric Turbidity Units
 mV = millivolts

Groundwater Sampling Form

Site Address:	3200 LAKESHORE AVE, CARLAND		
Project No:	255325	Field Technician:	CK
Field Point:	U-3	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	10.59	Well Diameter (in):	2 4 6 8 <u>3</u>
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	19.30	Water Column Height (ft):	8.71

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.71</u> X Conversion Factor (gal/ft): <u>0.37</u> = Casing Volume (gal): <u>3.2</u> Casing Volume (gal): <u>3.2</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>9.6</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163 <u>3" = 0.37</u>		

Purge:	Start Time:	Stop Time:	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											
			11:06	19.4	7.05	861	94.3	9	1.20	1.6	
			11:08	19.6	6.96	865	90.6	35	0.72	3.2	
			11:10	19.9	7.02	889	87.1	47	1.15	4.8	
						WELL DEWATERED @	5 gallon			5.0	19.16
			13:15	19.9	7.35	842	40.4	15	1.50		
Post-Purge											

Did Well dewater? <u>Yes</u> No	Total Purge volume (gal): <u>5.0</u>
Other Comments:	80%: 12.33 DTW: 10.78 *PURGED THROUGH FLOW CELL

Sample Info:	
Sample ID: U-3 - 2011231	Sample Date and Time: 12/5/11 1320
Selected Analysis: SEE COC	

This form was provided by Antea Group and completed by: (Print Full Name) COREY KILPATRICK, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 12/5/11

LNAPL = light non-aqueous phase liquids
 bgs = below ground surface
 ORP = Oxidation-Reduction Potential
 D.O. = dissolved oxygen
 gal = gallons/s
 temp = temperature
 NTU = Nephelometric Turbidity Units
 mV = millivolts

Groundwater Sampling Form

Site Address:	3200 LAKESHORE AVE, CARLAND		
Project No:	255325	Field Technician:	CK
Field Point:	U-4	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	8.98	Well Diameter (in):	2 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	19.48	Water Column Height (ft):	10.50

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer</u> w/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>10.50</u>	X Conversion Factor (gal/ft): <u>0.66</u>	= Casing Volume (gal): <u>6.9</u>
Casing Volume (gal): <u>6.9</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>20.7</u>

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

Purge:	Start Time:	Stop Time:	Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
	<u>1015</u>	<u>1018</u>	Pre-Purge				—				
			1037	21.1	7.12	943	112.6	16	3.89	3.5	
			1039	21.6	7.15	956	110.0	3	1.98	7.0	
			1041	21.6	7.17	965	108.6	2	1.77	10.5	
			1043	21.5	7.20	958	105.5	1	1.15	14.0	
			1045	21.3	7.24	970	102.9	3	1.44	17.5	
					WELL DEWATERED @		18 gal				18.65
			1302	19.6	7.56	942	35.2	9	5.07	—	
			Post-Purge				—				

Did Well dewater? Yes No Total Purge volume (gal): 18.0

Other Comments:
 80%: 11.08 *PURGED THROUGH FLOW CELL
 DTW: ~~18~~ 16.18 (2HR) *MS/MSD TAKEN

Sample Info:

Sample ID: U-4 - 20111231	Sample Date and Time: 12/5/11 1305
Selected Analysis: SEE COL	

This form was provided by Antea Group and completed by: (Print Full Name) COREY KILPATRICK, an employee of Blaine Tech Services, Inc.

Signature: Date: 12/5/11



LNAPL = light non-aqueous phase liquids
 bgs = below ground surface
 ORP = Oxidation-Reduction Potential
 D.O. = dissolved oxygen

gal = gallon/s
 temp = temperature
 NTU = Nephelometric Turbidity Units
 mV = millivolts

Groundwater Sampling Form

Site Address:	3200 LAKESHORE AVE, CARLAND		
Project No:	255325	Field Technician:	CR
Field Point:	U-5	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	5.83	Well Diameter (in):	2 ④ 6 8 —
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	19.96	Water Column Height (ft):	14.13

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer <u>Electric Submersible Peristaltic Pump</u> Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>14.13</u> X Conversion Factor (gal/ft): <u>0.66</u> = Casing Volume (gal): <u>9.3</u> Casing Volume (gal): <u>9.3</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>27.9</u>		

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

Purge:	Start Time:	Stop Time:	Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
	<u>11:30</u>	<u>11:47</u>	Pre-Purge				—				
			<u>11:38</u>	<u>20.0</u>	<u>7.05</u>	<u>908</u>	<u>-115.0</u>	<u>13</u>	<u>0.48</u>	<u>5.0</u>	
			<u>11:40</u>	<u>20.1</u>	<u>7.11</u>	<u>819</u>	<u>-130.8</u>	<u>8</u>	<u>0.30</u>	<u>9.5</u>	
			<u>1:42</u>	<u>20.4</u>	<u>7.12</u>	<u>843</u>	<u>-140.3</u>	<u>5</u>	<u>0.23</u>	<u>14.5</u>	
			<u>1:44</u>	<u>20.5</u>	<u>7.14</u>	<u>1322</u>	<u>-144.4</u>	<u>11</u>	<u>0.27</u>	<u>19.0</u>	
			<u>1:46</u>	<u>20.2</u>	<u>7.16</u>	<u>1410</u>	<u>-147.4</u>	<u>28</u>	<u>0.28</u>	<u>24.0</u>	
				<u>well de-aerated @</u>			<u>25.0</u>	<u>gallons</u>		<u>25.0</u>	<u>19.10</u>
			<u>1:38</u>	<u>19.6</u>	<u>7.23</u>	<u>1496</u>	<u>-68.1</u>	<u>7</u>	<u>1.97</u>	—	
			Post-Purge				—				

Did Well dewater? Yes No Total Purge volume (gal): 25.0

Other Comments: 80%: 8.66 DTW: 8.60 *PURGED THROUGH FLOW CELL

Sample Info:

Sample ID: <u>U-5 - 20111231</u>	Sample Date and Time: <u>12/5/11 1340</u>
Selected Analysis: <u>SEE COC</u>	

This form was provided by Antea Group and completed by: (Print Full Name) COREY KILPATRICK, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 12/5/11

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

Groundwater Sampling Form

Site Address:	3200 LAKESHORE AVE, CARLAND		
Project No:	255325	Field Technician:	CK
Field Point:	U-6	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	5.35	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	22.25	Water Column Height (ft):	

Purging Info and Calculations:

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

Purge:	Start Time:	Stop Time:	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											
* CAR PARKED ON WELL - NO ACCESS TO PURGE NO PARKING SIGN REMOVED FROM SPACE											
* NO SAMPLE TAKEN											
Post-Purge											
Did Well dewater?				Yes	No	Total Purge volume (gal):					

Other Comments: 80% DTW: *PURGED THROUGH FLOW CELL

Sample Info:	
Sample ID: U- - 2011231	Sample Date and Time: 12/5/11
Selected Analysis: SEE COC	

This form was provided by Antea Group and completed by: (Print Full Name) COREY KILPATRICK, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 12/5/11



LNAPL = light non-aqueous phase liquids
 bgs = below ground surface
 ORP = Oxidation-Reduction Potential
 D.O. = dissolved oxygen

gal = gallon/s
 temp = temperature
 NTU = Nephelometric Turbidity Units
 mV = millivolts



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

4Q11 GW Event

COPY

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Face-Seattle	Site ID #: 255325	Task: WG_Q_201112	Send Invoice to: Tara Bosch		
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#: 3200 LAKESHORE AVE	Address: 11050 White Rock Road, Suite 110	Turn around time (days) 10	
Lab PM: Regina Ste. Marie	City: OAKLAND	State: CA 94610	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	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one	Special <input type="checkbox"/>
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 408-225-8506	Send EDD to: copelldata@intelligentens.com	CC Hardcopy report to:	MA MCP Cert? <input type="checkbox"/>	CT RCP Cert? <input type="checkbox"/>
Applicable Lab Quote #:	AG PM Email: Dennis.dettloff@anteagroup.	CC Hardcopy report to:	Lab Project ID (lab use)		

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 FREE PRODUCT LF SOIL SO OIL OL TARE TA AMBIENT AIR AA SIB AIR AE SOIL GAS OS	MATRIX CODE	SAMPLE TYPE G-GRAB C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives								Requested Analyses P240 GC/MS GRO P240 GC/MS TBE TOXICA	Comments/Lab Sample I.D.		
									Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₅	Methanol	Other				
1	U-1_20111231		WG	1410	12/5/11		6	2				X								
2	U-2_20111231		WG	1400	↓		6	2				X								
3	U-3_20111231		WG	1320			6	2				X								
4	U-4_20111231		WG	1305			10	2				X								
5	U-5_20111231		WG	1340			6	2				X								
6	U-6-20111231		WG									X								
7	TB1_20111231		W	0630	12/5/11		4	2				X								

Additional Comments/Special Instructions: Global ID: T0600101463	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions				
	<i>ay / BTS</i>	12/5/11	1815				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		Temp in °C		Samples on Ice?		Sample intact?		Trip Blank?	
UPS COURIER FEDEX		PRINT Name of SAMPLER: CORA KIVATRICA		DATE Signed 12/5/11		Time: 1430					
US MAIL		SIGNATURE of SAMPLER: <i>ay</i>									



Semi-Annual Summary Report, July through December 2011
76 Service Station No. 5325
Oakland, CA
Antea Group Project No. I40255325



Attachment D

Certified Laboratory Analytical Report and Data Validation Form

July 15, 2010

Dennis Dettloff
ELT_Delta Consultants Sacramen
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

RE: Project: 255325 3200 Lakeshore Ave
Pace Project No.: 254105

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on July 01, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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, ELT_Delta Consultants Sacramento
Jonathon Fillingame, ELT_Delta Consultants Sacramento
Lia Holden, ELT-Delta Consultants
Josh Mahoney, ELT_Delta Consultants San Jose
Tony Perini, ELT_Delta Consultants San Jose
Nicole Persaud, ELT-Delta Consultants
Don Pinkerton, ELT_Delta Consultants Sacramento
David Sowle, Delta Consultants
Doug Umland, ELT_Delta Consultants San Jose
Ed Weyrens, ELT_Delta Consultants San Jose

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
254105001	U-3_20100630	EPA 6010	BGA	1	PASI-S
		EPA 300.0	BPR	1	PASI-S
		EPA 353.2	BPR	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S
254105002	U-5_20100630	EPA 6010	BGA	1	PASI-S
		EPA 300.0	BPR	1	PASI-S
		EPA 353.2	BPR	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S
254105003	U-6_20100630	EPA 6010	BGA	1	PASI-S
		EPA 300.0	BPR	1	PASI-S
		EPA 353.2	BPR	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

Sample: U-3_20100630		Lab ID: 254105001	Collected: 06/30/10 09:20	Received: 07/01/10 09:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	952	ug/L	100	1	07/06/10 09:16	07/06/10 16:24	7439-89-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	65800	ug/L	20000	20		07/03/10 21:52	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	4680	ug/L	250	5		07/07/10 16:37		
Nitrogen, NO2 plus NO3	4690	ug/L	250	5		07/07/10 16:37		
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	ND	ug/L	10.0	1		07/01/10 21:06	14797-65-0	

Sample: U-5_20100630		Lab ID: 254105002	Collected: 06/30/10 09:45	Received: 07/01/10 09:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	6650	ug/L	100	1	07/06/10 09:16	07/06/10 16:32	7439-89-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	5560	ug/L	1000	1		07/07/10 14:57	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	51.6	ug/L	50.0	1		07/07/10 16:17		
Nitrogen, NO2 plus NO3	91.5	ug/L	50.0	1		07/07/10 16:17		
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	39.9	ug/L	10.0	1		07/01/10 21:06	14797-65-0	

Sample: U-6_20100630		Lab ID: 254105003	Collected: 06/30/10 08:00	Received: 07/01/10 09:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	566000	ug/L	500	5	07/06/10 09:16	07/06/10 16:35	7439-89-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	10100	ug/L	5000	5		07/03/10 23:01	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	263	ug/L	50.0	1		07/07/10 16:19		
Nitrogen, NO2 plus NO3	308	ug/L	50.0	1		07/07/10 16:19		

Date: 07/15/2010 01:52 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

Sample: U-6_20100630	Lab ID: 254105003	Collected: 06/30/10 08:00	Received: 07/01/10 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	44.3	ug/L	10.0	1		07/01/10 21:06	14797-65-0	

QUALITY CONTROL DATA

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

QC Batch: MPRP/1630 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET
 Associated Lab Samples: 254105001, 254105002, 254105003

METHOD BLANK: 32379 Matrix: Water

Associated Lab Samples: 254105001, 254105002, 254105003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	07/06/10 16:01	

LABORATORY CONTROL SAMPLE: 32380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9380	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32381 32382

Parameter	Units	254093001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron	ug/L	13800	10000	10000	22400	21900	86	81	75-125	2	

QUALITY CONTROL DATA

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

QC Batch: WETA/1602 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 254105001, 254105002, 254105003

METHOD BLANK: 32286 Matrix: Water

Associated Lab Samples: 254105001, 254105002, 254105003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	1000	07/03/10 16:24	

LABORATORY CONTROL SAMPLE: 32287

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	15000	15500	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32288 32289

Parameter	Units	254052001		32289		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MSD Spike Conc.					
Sulfate	ug/L	69400	300000	426000	436000	119	122	90-110	2	M1

QUALITY CONTROL DATA

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

QC Batch: WETA/1604

Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2

Analysis Description: 353.2 Nitrate + Nitrite, preserved

Associated Lab Samples: 254105001, 254105002, 254105003

METHOD BLANK: 32592

Matrix: Water

Associated Lab Samples: 254105001, 254105002, 254105003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	50.0	07/07/10 15:52	

LABORATORY CONTROL SAMPLE: 32593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	1000	992	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32595

32594

Parameter	Units	254081001 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	112	1000	1000	1210	1150	109	104	90-110	5	

QUALITY CONTROL DATA

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

QC Batch: WETA/1600 Analysis Method: SM 4500-NO2 B
 QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
 Associated Lab Samples: 254105001, 254105002, 254105003

METHOD BLANK: 32125 Matrix: Water

Associated Lab Samples: 254105001, 254105002, 254105003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	ug/L	ND	10.0	07/01/10 21:06	

LABORATORY CONTROL SAMPLE: 32126

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	ug/L	50	49.8	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32127 32128

Parameter	Units	254105001 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	48.5	48.3	81	80	71-109	.4	

QUALIFIERS

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

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

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

LABORATORIES

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 255325 3200 Lakeshore Ave

Pace Project No.: 254105

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
254105001	U-3_20100630	EPA 3010	MPRP/1630	EPA 6010	ICP/1553
254105002	U-5_20100630	EPA 3010	MPRP/1630	EPA 6010	ICP/1553
254105003	U-6_20100630	EPA 3010	MPRP/1630	EPA 6010	ICP/1553
254105001	U-3_20100630	EPA 300.0	WETA/1602		
254105002	U-5_20100630	EPA 300.0	WETA/1602		
254105003	U-6_20100630	EPA 300.0	WETA/1602		
254105001	U-3_20100630	EPA 353.2	WETA/1604		
254105002	U-5_20100630	EPA 353.2	WETA/1604		
254105003	U-6_20100630	EPA 353.2	WETA/1604		
254105001	U-3_20100630	SM 4500-NO2 B	WETA/1600		
254105002	U-5_20100630	SM 4500-NO2 B	WETA/1600		
254105003	U-6_20100630	SM 4500-NO2 B	WETA/1600		

254105



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

PACE ANALYTICAL- SEATTLE (Subcontract Samples)

Required Lab Information: Lab Name: Pace-Seattle
Required Project Information: Site ID #: 255325, Task: WG_S_201006
Required Invoice Information: Send Invoice to: David Sowle
Address: 11050 White Rock Road, Suite 110
Delta project #: 21769/L1
Turn around time (days): 10
3Q10 GW Event
Lab PM: Regina Ste. Marie
City: OAKLAND, State: CA 94610
Reimbursement project? Non-reimbursement project? y Mark one
Delta PM Name: Dennis Dettloff
Send EDD to: copelldata@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
Delta PM Email: ddettloff@deltaenv.com
CC Hardcopy report to

Table with columns: ITEM #, SAMPLE ID, MATRIX CODE, SAMPLE TYPE, SAMPLE DATE, SAMPLE TIME, #OF CONTAINERS, FIELD FILTERED? (Y/N), Preservatives (Unpreserved, H2SO4, HNO3, HCl, NaOH, Na2S2O3, Methanol, Other), Requested Analyses (353.2Altraben, 300.0 Sulfolis, 601.0Hydrohal, 2280 GC/MS GTO, 2280GC/MS GTO, Aestron (2280), Chlordane (2280), Ferrous Fe & Ferric Fe (3500), TKH 351.2, Nitrite 351.2, 6010 Metals list, 800 BZT-08, COD 410.4, Ig 7470), Comments/Lab Sample I.D.

Additional Comments/Special Instructions:
RELINQUISHED BY / AFFILIATION: Fed Ex
DATE: 6/29/10
ACCEPTED BY / AFFILIATION: Regina Ste Marie
DATE: 6/30/10
TIME: 09:00
Sample Receipt Conditions: Y/N
SHIPPING METHOD: (mark as appropriate) FEDEX
SAMPLER NAME AND SIGNATURE: J. P. [Signature]
UPS COURIER (FEDEX) PRINT Name of SAMPLER: J. P. [Signature]
US MAIL SIGNATURE of SAMPLER: [Signature]
DATE Signed: 6/30/10 Time: 1645

4.2, 2.4, 2.7, 5.2, 2.2, 6.0



Sample Container Count

CLIENT: Delta



COC PAGE 1 of 1

COC ID# _____

Sample Line	Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	Comments
1							1		1	1			
2							1		1	1			
3							1		1	1			
4													
5													
6													
7													
8													
9													
10													
11													
12													Trip Blank?

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

Sample Condition Upon Receipt



Client Name: Delta BT

Project # 254105

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8715 0606 5482/5588/5519

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used Horiba 132013 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 4.2, 2.4, 2.7, 5.2 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 5°C 2.2, 6.0

Optional:
Proj. Due Date:
Proj. Name:
Date and Initials of person examining contents: <u>RSM 07/01/10</u>

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 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>NO2</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-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	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>U-3 and U-5 received with pH 7.2. pH adjusted to < 2 with H2SO4</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: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15. <u>No he voa vials rsm</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RSM Date: RSM 07/01/10

Is the Data Valid?

(circle)

Yes / No

Preservation Temperature

(if Known): 1.6 °C

Antea Group Lab Validation Sheet

Project/Client: COP/ELT

Project #: 140255325

Date of Validation: 12/22/11 Date of Analysis: 12/15/11 Sample Date: 12/5/11

Completed By: Jon F. Signature: *Jon F. [Signature]*

Analytical Lab Used and Report # (if any): Pace Analytical 2510230

Circle or
Highlight
Yes/No
below

1. Was the analysis the one requested?

Yes / No

2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?

Yes / No

3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?

Yes / No

4. Once prepared/extracted, were the samples analyzed within the EPA holding times?

Yes / No

5. Were Laboratory blanks performed, if so, were they below non-detect?

Yes / No

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.)

Yes / No

7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?

Yes / No

8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?

Yes / No

N/a

9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?

Yes / No

10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?

Yes / No

11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?

Yes / No

If any answer is no, explain why and what corrective action was taken:

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>255325-1211</i>	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>Proburn Energy clostrane nobun 20343 Canwood #200 Agoura Hills, CA 91301</i>		Site: <i>255325</i> <i>3200 Lakeshore Ave Oakland, CA 94610</i>		
4. Generator's Phone <i>(818) 200-5705</i>	6. US EPA ID Number	A. State Transporter's ID		
5. Transporter 1 Company Name <i>Blaine Tech Services</i>	8. US EPA ID Number	B. Transporter 1 Phone <i>310-885-4455</i>		
7. Transporter 2 Company Name	10. US EPA ID Number	C. State Transporter's ID		
9. Designated Facility Name and Site Address <i>Seaport Environmental 700 Seaport Blvd Redwood City, CA 94063</i>	14. Unit Wt./Vol.	D. Transporter 2 Phone		
11. WASTE DESCRIPTION	12. Containers	E. State Facility's ID		
a. <i>Non hazardous waste liquid</i>	No. <i>1</i> Type <i>TT</i>	F. Facility's Phone <i>415-3104-1024</i>		
b.	13. Total Quantity			
c.	<i>70</i>			
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 no (310) 885-4455</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>(Anta Group) brilyn Mendes on behalf of Pul. Energy</i>		Signature <i>Brilyn Mendes</i>	Date <i>11/11/11</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials		Date		
Printed/Typed Name <i>COREY KILPATRICK</i>	Signature <i>[Signature]</i>	Month <i>12</i>	Day <i>5</i>	Year <i>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>Joaquim P. Carreira</i>		Signature <i>[Signature]</i>	Date <i>12/20/11</i>	

NON-HAZARDOUS WASTE GENERATOR



Semi-Annual Summary Report, July through December 2011
76 Service Station No. 5325
Oakland, CA
Antea Group Project No. I40255325



Attachment E

Waste Manifest