



**CONESTOGA-ROVERS  
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## TRANSMITTAL

DATE: November 12, 2013 REFERENCE NO.: 240483

PROJECT NAME: 5755 Broadway, Oakland

TO: Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

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By Alameda County Environmental Health at 4:37 pm, Nov 14, 2013

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QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report - Third Quarter 2013

As Requested  For Review and Comment  
 For Your Use

**COMMENTS:**  
If you have any questions regarding the contents of this document, please call the CRA project manager Peter Schaefer at (510) 420-3319 or the Shell program manager Perry Pineda at (425) 413-1164.

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)  
Clint Mercer, SC Fuels (lessee), 1800 West Katella Avenue, Suite 400, Orange, CA 92867  
Orkin, Inc. (property owner), PO Box 2128, Santa Fe Springs, CA 90670

Completed by: Peter Schaefer Signed: *Peter Schaefer*

Filing: **Correspondence File**



Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Shell Oil Products US**  
Soil and Groundwater Focus Delivery Group  
20945 S. Wilmington Avenue  
Carson, CA 90810  
Tel (425) 413 1164  
Fax (425) 413 0988  
Email [perry.pineda@shell.com](mailto:perry.pineda@shell.com)  
Internet <http://www.shell.com>

Re: 5755 Broadway  
Oakland, California  
SAP Code 135699  
Incident No. 98995756  
ACEH Case No. RO0000026

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (425) 413-1164 with any questions or concerns.

Sincerely,  
Shell Oil Products US

A handwritten signature in black ink, appearing to read "Perry Pineda", is located below the typed name.

Perry Pineda  
Senior Environmental Program Manager



## **GROUNDWATER MONITORING REPORT - THIRD QUARTER 2013**

**SHELL-BRANDED SERVICE STATION  
5755 BROADWAY  
OAKLAND, CALIFORNIA**

**SAP CODE            135699  
INCIDENT NO.      98995756  
AGENCY NO.        RO0000026**

**NOVEMBER 12, 2013  
REF. NO. 240483 (19)**

This report is printed on recycled paper.

**Prepared by:  
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& Associates**

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## 1.0 INTRODUCTION

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

### 1.1 SITE INFORMATION

Site Address	5755 Broadway, Oakland
Site Use	Shell-branded Service Station
Shell Project Manager	Perry Pineda
CRA Project Manager	Peter Schaefer
Lead Agency and Contact	ACEH, Jerry Wickham
Agency Case No.	RO0000026
Shell SAP Code	135699
Shell Incident No.	98995756

Date of most recent agency correspondence was September 9, 2013.

## 2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

### 2.1 CURRENT QUARTER'S ACTIVITIES

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

CRA prepared a vicinity map (Figure 1), a groundwater contour and chemical concentration map (Figure 2), and a groundwater data table (Table 1). Blaine's field notes are presented in Appendix A, and the laboratory report is presented in Appendix B.

CRA submitted a *Well Survey* report on September 10, 2013, which identified one water-producing well within one-half mile of the site, a domestic well located approximately 1,700 feet to the north.

CRA installed two soil vapor probes (VP-1 and VP-2) on September 9, 2013 and sampled the probes on September 24 and 25, 2013.

## **2.2            CURRENT QUARTER'S FINDINGS**

Groundwater Flow Direction	Southwesterly to southerly
Hydraulic Gradient	Averages 0.04
Depth to Water	4.01 to 5.44 feet below top of well casing

## **2.3            PROPOSED ACTIVITIES**

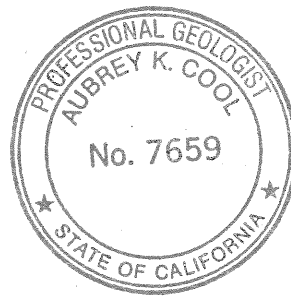
CRA will submit a soil vapor investigation report detailing the installation and sampling of the two new on-site soil vapor probes under separate cover by November 22, 2013.

Blaine will gauge and sample wells according to the established monitoring program for this site. This site is monitored semiannually during the first and third quarters, and CRA will issue groundwater monitoring reports semiannually following the sampling events.

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

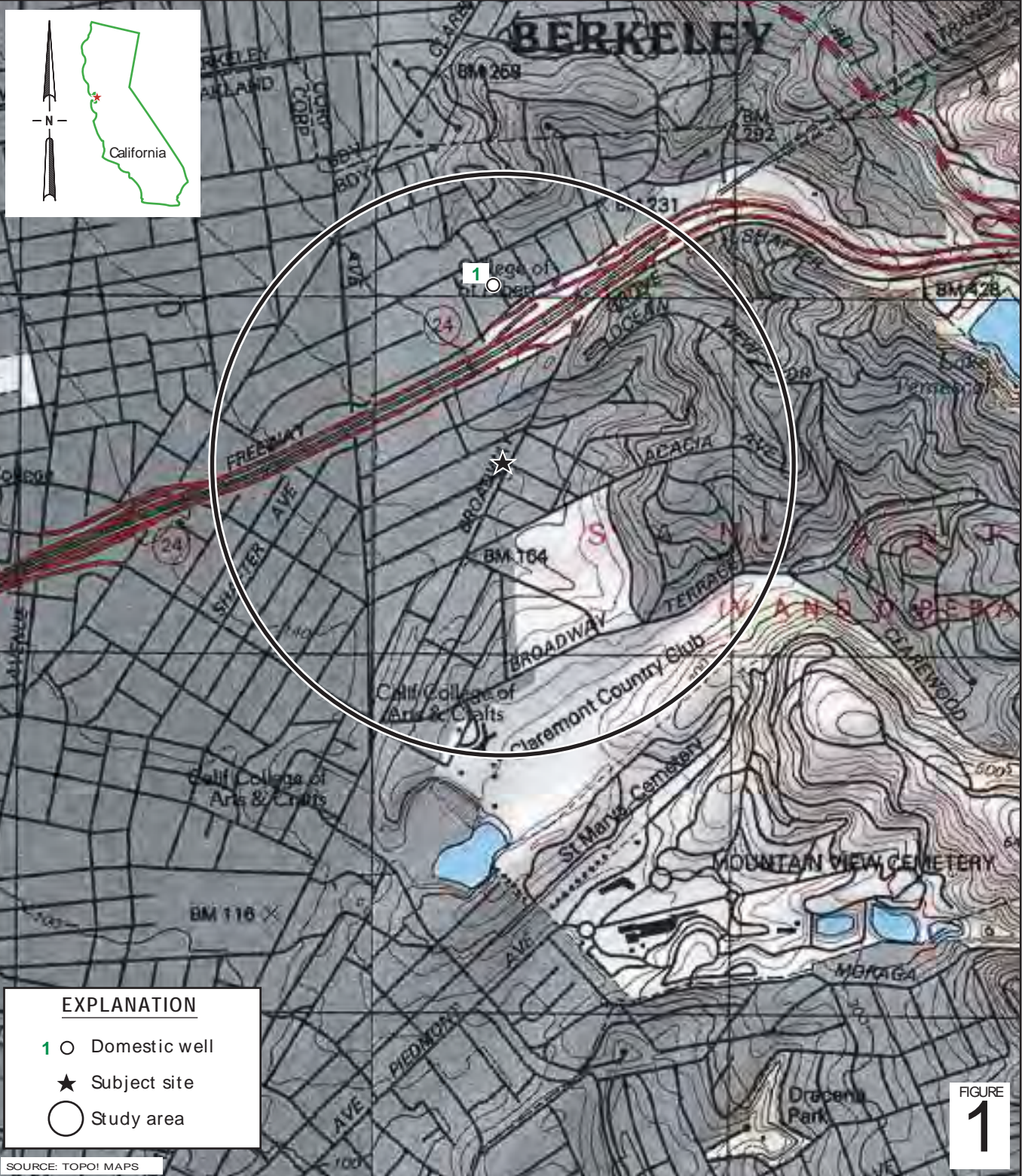
*Peter Schaefer*  
Peter Schaefer, CHG, CEG

*Aubrey K Cool*  
Aubrey K. Cool, PG





FIGURES



I:\6-chars\2404--\240483-Oakland 5755 Broadway\240483-FIGURES\240483 VICINITY.AI

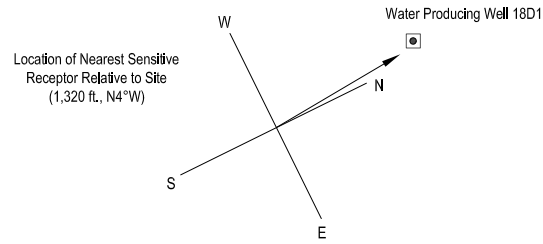
### Shell-branded Service Station

5755 Broadway  
Oakland, California



**CONESTOGA-ROVERS  
& ASSOCIATES**

### Vicinity Map



### EXPLANATION

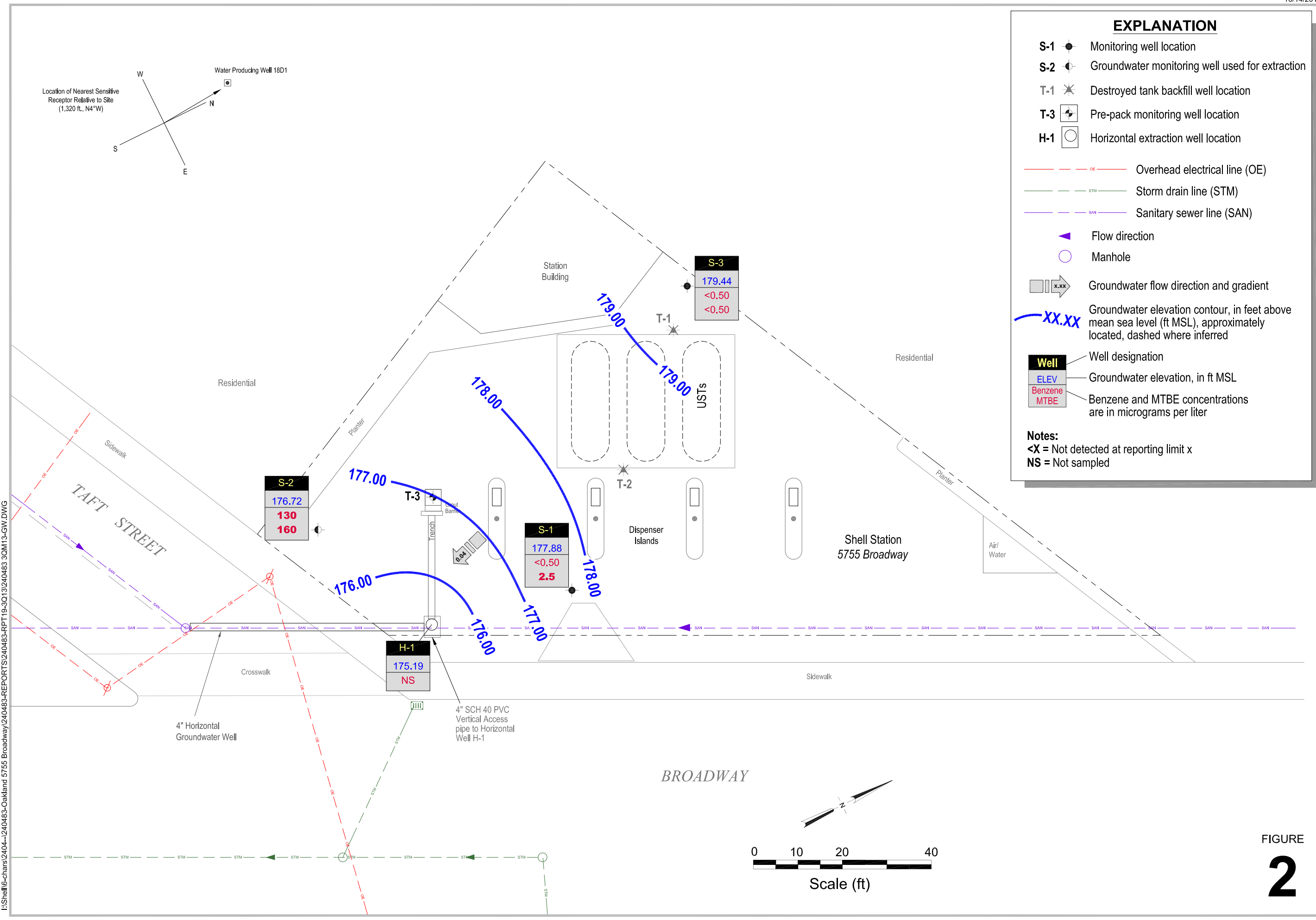
- S-1** ● Monitoring well location
- S-2** ● Groundwater monitoring well used for extraction
- T-1** ✱ Destroyed tank backfill well location
- T-3** ⊕ Pre-pack monitoring well location
- H-1** ○ Horizontal extraction well location

- OE Overhead electrical line (OE)
- STM Storm drain line (STM)
- SAN Sanitary sewer line (SAN)

- ▶ Flow direction
- Manhole
- ▢ x.xx Groundwater flow direction and gradient
- xx.xx Groundwater elevation contour, in feet above mean sea level (ft MSL), approximately located, dashed where inferred

Well	Well designation
ELEV	Groundwater elevation, in ft MSL
Benzene	Benzene and MTBE concentrations are in micrograms per liter
MTBE	

**Notes:**  
 <X = Not detected at reporting limit x  
 NS = Not sampled



I:\Shell\6-chars\2404-1\240483-Oakland 5755 Broadway\240483-REPORTS\240483-RPT\19-3Q1\3\240483 3OM13-GW.DWG



FIGURE 2

TABLE

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
							8020 (µg/L)	8260 (µg/L)								
S-1	07/03/1985	2,400 a	240 a	9.8 a	380 a,b	380 a,b	---	---	---	---	---	---	---	---	---	---
S-1	08/15/1989	170 a	0.6 a	<0.5 a	<1.5 a	<1.5 a	---	---	---	---	---	---	---	---	---	---
S-1	10/05/1989	---	---	---	---	---	---	---	---	---	---	---	100.00 c	3.80	96.20	---
S-1	11/13/1989	90 a	1.2 a	<0.5 a	<1.5 a	<1.5 a	---	---	---	---	---	---	100.00	3.72	96.28	---
S-1	01/18/1990	<50 a	57 a	3.1 a	5.7 a	10 a	---	---	---	---	---	---	100.00	2.87	97.13	---
S-1	02/20/1990	---	---	---	---	---	---	---	---	---	---	---	100.00	2.71	97.29	---
S-1	04/11/1990	520 a	120 a	2.2 a	0.44 a	6.0 a	---	---	---	---	---	---	100.00	3.36	96.64	---
S-1	07/27/1990	<30 a	2.7 a	0.31 a	<0.3 a	0.47 a	---	---	---	---	---	---	100.00	3.60	96.40	---
S-1	10/17/1990	<30 a	0.99 a	<0.3 a	<0.3 a	<0.3 a	---	---	---	---	---	---	100.00	4.09	95.91	---
S-1	01/25/1991	<30	<0.3	<0.3	<0.3	<0.3	---	---	---	---	---	---	100.00	3.88	96.12	---
S-1	06/03/1991	<30	<0.3	<0.3	<0.3	<0.3	---	---	---	---	---	---	100.00	3.51	96.49	---
S-1	08/30/1991	<30	<0.3	<0.3	<0.3	<0.3	---	---	---	---	---	---	100.00	4.24	95.76	---
S-1	11/22/1991	<30	2.3	<0.46	0.3	<0.65	---	---	---	---	---	---	100.00	4.29	95.71	---
S-1	03/13/1992	<30	<0.52	<0.3	<0.3	<0.3	---	---	---	---	---	---	100.00	2.87	97.13	---
S-1	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.79	96.21	---
S-1	08/19/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	4.43	95.57	---
S-1	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	4.34	95.66	---
S-1	02/10/1993	51	1.4	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	4.20	95.80	---
S-1 (D)	02/10/1993	<50	1.2	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	---	---	---
S-1	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.39	96.61	---
S-1	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.69	96.31	---
S-1	11/02/1993	70 d	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	4.26	95.74	---
S-1	12/16/1993	---	---	---	---	---	---	---	---	---	---	---	100.00	2.73	97.27	---
S-1	02/01/1994	60 d	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.38	96.62	---
S-1	05/04/1994	<50	1.1	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.00	97.00	---
S-1	08/18/1994	<50	0.60	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.70	96.30	---
S-1 (D)	08/18/1994	60 d	0.50	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	---	---	---
S-1	11/09/1994	<50	4.0	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	2.52	97.48	---
S-1	02/22/1995	50	0.80	0.70	<0.5	1.3	---	---	---	---	---	---	100.00	4.08	95.92	---
S-1	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	2.58	97.42	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Reading
S-1	08/30/1995	<50	1.7	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.48	96.52	---
S-1	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.99	96.01	---
S-1	02/02/1996	<50	11	<0.5	0.9	<0.5	---	---	---	---	---	---	100.00	2.00	98.00	---
S-1	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	100.00	3.38	96.62	---
S-1	08/22/1996	<50	1.5	<0.5	<0.5	<0.5	130	---	---	---	---	---	100.00	3.43	96.57	---
S-1	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	57	---	---	---	---	---	100.00	3.70	96.30	4.33
S-1	02/20/1997	<50	0.64	<0.50	<0.50	1.6	6.5	---	---	---	---	---	100.00	3.60	96.40	2
S-1	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	46	---	---	---	---	---	100.00	3.47	96.53	7
S-1 (D)	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	47	---	---	---	---	---	100.00	---	---	---
S-1	08/21/1997	<50	<0.50	<0.50	<0.50	0.84	26	---	---	---	---	---	100.00	3.01	96.99	3.1
S-1	11/03/1997	<50	<0.50	1.1	<0.50	1.3	190	---	---	---	---	---	100.00	3.66	96.34	2
S-1	01/20/1998	110	7.9	2.8	4.4	13	53	---	---	---	---	---	100.00	1.84	98.16	4.6
S-1 (D)	01/20/1998	130	9.2	6.9	5.2	15	93	---	---	---	---	---	100.00	---	---	---
S-1	02/16/1999	<50	<0.50	<0.50	<0.50	<0.50	8.6	---	---	---	---	---	100.00	2.43	97.57	2.2
S-1	09/07/1999	---	---	---	---	---	---	---	---	---	---	---	100.00	2.84	97.16	---
S-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	202	---	---	---	---	---	100.00	3.10	96.90	2.1
S-1	04/26/2000	---	---	---	---	---	---	---	---	---	---	---	100.00	2.91	97.09	---
S-1	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	811	---	---	---	---	---	100.00	3.21	96.79	1.8
S-1	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	100.00	3.18	96.82	---
S-1	02/12/2001	<50.0	<0.500	<0.500	<0.500	<0.500	209	---	---	---	---	---	100.00	1.34	98.66	2.2
S-1	06/07/2001	---	---	---	---	---	---	---	---	---	---	---	100.00	1.27	98.73	---
S-1	08/31/2001	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	100.00	3.16	96.84	4.0
S-1	12/05/2001	---	---	---	---	---	---	2.6	---	---	---	---	100.00	1.90	98.10	---
S-1	01/31/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	100.00	2.67	97.33	---
S-1	06/04/2002	---	---	---	---	---	---	---	---	---	---	---	100.00	1.87	98.13	---
S-1	07/25/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	100.00	2.01	97.99	---
S-1	11/07/2002	---	---	---	---	---	---	---	---	---	---	---	181.89	3.01	178.88	---
S-1	11/14/2002	---	---	---	---	---	---	---	---	---	---	---	181.89	3.40	178.49	---
S-1	01/30/2003	<50	<0.50	<0.50	<0.50	<0.50	---	27	---	---	---	---	181.89	2.12	179.77	---
S-1	06/03/2003	---	---	---	---	---	---	---	---	---	---	---	181.89	1.83	180.06	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
							8020 (µg/L)	8260 (µg/L)								
S-1	08/27/2003	<50	0.50	1.5	<0.50	2.0	---	130	---	---	---	---	181.89	3.32	178.57	---
S-1	11/25/2003	---	---	---	---	---	---	---	---	---	---	---	181.89	3.28	178.61	---
S-1	02/05/2004	270	2.4	6.4	5.8	19	---	8.3	---	---	---	---	181.89	2.09	179.80	---
S-1	04/21/2004	---	---	---	---	---	---	---	---	---	---	---	181.89	2.61	179.28	---
S-1	08/12/2004	<500	<5.0	<5.0	<5.0	<10	---	1,100	<50	<20	<20	<20	181.89	3.70	178.19	---
S-1	11/08/2004	---	---	---	---	---	---	---	---	---	---	---	181.89	3.04	178.85	---
S-1	05/16/2005	<50	<0.50	<0.50	<0.50	<1.0	---	4.9	---	---	---	---	181.89	3.10	178.79	---
S-1	08/16/2005	<50	<0.50	<0.50	<0.50	<1.0	---	64	52	<2.0	<2.0	<2.0	181.89	0.73	181.16	---
S-1	11/03/2005	---	---	---	---	---	---	---	---	---	---	---	181.89	3.49	178.40	---
S-1	02/16/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	22.7	---	---	---	---	181.89	0.73	181.16	---
S-1	05/05/2006	---	---	---	---	---	---	---	---	---	---	---	181.89	0.71	181.18	---
S-1	08/21/2006	<50.0	0.630	<0.500	<0.500	1.71	---	44.6	<10.0	<0.500	<0.500	<0.500	181.89	3.34	178.55	---
S-1	11/13/2006	---	---	---	---	---	---	---	---	---	---	---	181.89	2.55	179.34	---
S-1	01/30/2007	<50	<0.50	<0.50	<0.50	<1.0	---	24	---	---	---	---	181.89	0.91	180.98	---
S-1	05/23/2007	---	---	---	---	---	---	---	---	---	---	---	181.89	2.50	179.39	---
S-1	08/09/2007	<50 i	0.35 j	<1.0	<1.0	<1.0	---	33	<10	<2.0	<2.0	<2.0	181.89	0.81	181.08	---
S-1	11/13/2007	---	---	---	---	---	---	---	---	---	---	---	181.89	0.55	181.34	---
S-1	02/13/2008	<50 i	0.56	<1.0	<1.0	<1.0	---	2.9	---	---	---	---	181.89	0.45	181.44	---
S-1	05/20/2008	---	---	---	---	---	---	---	---	---	---	---	181.89	1.00	180.89	---
S-1	08/04/2008	66	<0.50	<1.0	<1.0	<1.0	---	3.6	<10	<2.0	<2.0	<2.0	181.89	0.72	181.17	---
S-1	12/02/2008	---	---	---	---	---	---	---	---	---	---	---	181.89	0.89	181.00	---
S-1	01/23/2009	<50	<0.50	<1.0	<1.0	2.1	---	4.8	---	---	---	---	181.89	0.81	181.08	---
S-1	05/05/2009	---	---	---	---	---	---	---	---	---	---	---	181.89	0.81	181.08	---
S-1	08/07/2009	53	0.86	<1.0	<1.0	<1.0	---	34	11	<2.0	<2.0	<2.0	181.89	4.33	177.56	---
S-1	02/03/2010	140	15	48	1.6	15	---	2.4	---	---	---	---	181.89	0.62	181.27	---
S-1	08/31/2010	<50	<0.50	<1.0	<1.0	<1.0	---	6.3	<10	<2.0	<2.0	<2.0	181.89	1.00	180.89	---
S-1	02/10/2011	<50	<0.50	<0.50	<0.50	<1.0	---	1.9	---	---	---	---	181.89	0.51	181.38	---
S-1	07/22/2011	<50	<0.50	<0.50	<0.50	<1.0	---	1.0	<10	<1.0	<1.0	<1.0	181.89	0.98	180.91	---
S-1	02/07/2012	<50	<0.50	<0.50	<0.50	<1.0	---	1.3	---	---	---	---	181.89	0.80	181.09	---
S-1	07/19/2012	<50	0.90	<0.50	<0.50	<1.0	---	2.8	<10	<0.50	<0.50	<0.50	181.89	3.49	178.40	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
S-1	01/25/2013	<50	<0.50	<0.50	<0.50	<1.0	---	1.5	---	---	---	---	181.89	0.65	181.24	---
S-1	08/08/2013	<50	<0.50	<0.50	<0.50	<1.0	---	2.5	<10	<0.50	<0.50	<0.50	181.89	4.01	177.88	---
S-2	09/22/1989	260 a	15 a	2 a	1 a	13 a	---	---	---	---	---	---	---	---	---	---
S-2	10/05/1989	---	---	---	---	---	---	---	---	---	---	---	98.92	4.44	94.48	---
S-2	11/13/1989	910 a	64 a	5.8 a	13 a	84 a	---	---	---	---	---	---	98.92	4.44	94.48	---
S-2	01/18/1990	1,100 a	74 a	5.6 a	13 a	45 a	---	---	---	---	---	---	98.92	3.41	95.51	---
S-2	02/20/1990	---	---	---	---	---	---	---	---	---	---	---	98.92	3.19	95.73	---
S-2	04/11/1990	2,900 a	510 a	6.5 a	29 a	120 a	---	---	---	---	---	---	98.92	3.94	94.98	---
S-2	07/27/1990	700 a	210 a	2.5 a	18 a	33 a	---	---	---	---	---	---	98.92	4.13	94.79	---
S-2	10/17/1990	320 a	44 a	0.75 a	7.9 a	4.6 a	---	---	---	---	---	---	98.92	4.57	94.35	---
S-2	01/25/1991	450	140	1.8	6.2	15	---	---	---	---	---	---	98.92	4.52	94.40	---
S-2	06/03/1991	490	150	2.7	8.2	7.0	---	---	---	---	---	---	98.92	4.02	94.90	---
S-2	08/30/1991	70	0.37	<0.3	<0.3	<0.3	---	---	---	---	---	---	98.92	4.70	94.22	---
S-2	11/22/1991	1,600	110	9.3	29	150	---	---	---	---	---	---	98.92	4.72	94.20	---
S-2	03/13/1992	1,300	210	5.7	34	79	---	---	---	---	---	---	98.92	3.47	95.45	---
S-2	05/28/1992	100	28	<0.5	<0.5	<0.5	---	---	---	---	---	---	98.92	4.45	94.47	---
S-2	08/19/1992	470	42	<0.5	8.3	4.0	---	---	---	---	---	---	98.92	4.84	94.08	---
S-2	11/18/1992	490	43	39	17	29	---	---	---	---	---	---	98.92	4.73	94.19	---
S-2	02/10/1993	19,000	710	760	80	370	---	---	---	---	---	---	98.92	4.83	94.09	---
S-2	06/11/1993	33,000	3,100	1,600	370	1,100	---	---	---	---	---	---	98.92	3.74	95.18	---
S-2	08/03/1993	18,000	1,400	130	81	130	---	---	---	---	---	---	98.92	4.23	94.69	---
S-2 (D)	08/03/1993	19,000	1,400	140	86	150	---	---	---	---	---	---	98.92	---	---	---
S-2	11/02/1993	12,000 d	470	47	31	92	---	---	---	---	---	---	98.92	4.72	94.20	---
S-2 (D)	11/02/1993	13,000 d	530	47	35	96	---	---	---	---	---	---	98.92	---	---	---
S-2	12/16/1993	---	---	---	---	---	---	---	---	---	---	---	98.92	3.00	95.92	---
S-2	02/01/1994	31,000 d	430	46	50	130	---	---	---	---	---	---	98.92	3.48	95.44	---
S-2 (D)	02/01/1994	31,000 d	300	33	30	100	---	---	---	---	---	---	98.92	---	---	---
S-2	05/04/1994	3,900	1,200	31	53	71	---	---	---	---	---	---	98.92	3.26	95.66	---
S-2 (D)	05/04/1994	4,500	1,200	37	57	110	---	---	---	---	---	---	98.92	---	---	---



TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
S-2	08/18/1994	24,000	600	8.3	15	27	---	---	---	---	---	---	98.92	3.98	94.94	---
S-2	11/09/1994	1,400 d	240	9.3	13	20	---	---	---	---	---	---	98.92	3.10	95.82	---
S-2 (D)	11/09/1994	1,800	260	8.5	13	21	---	---	---	---	---	---	98.92	---	---	---
S-2	02/22/1995	29,000	550	18	12	63	---	---	---	---	---	---	98.92	4.02	94.90	---
S-2 (D)	02/22/1995	28,000	530	17	10	60	---	---	---	---	---	---	98.92	---	---	---
S-2	05/02/1995	4,400	1,000	25	38	77	---	---	---	---	---	---	98.92	2.86	96.06	---
S-2 (D)	05/02/1995	4,400	1,000	26	41	83	---	---	---	---	---	---	98.92	---	---	---
S-2	08/30/1995	800	350	20	6.7	16	---	---	---	---	---	---	98.92	4.06	94.86	---
S-2 (D)	08/30/1995	960	220	22	12	48	---	---	---	---	---	---	98.92	---	---	---
S-2	11/28/1995	2,000	230	220	50	230	---	---	---	---	---	---	98.92	4.48	94.44	---
S-2 (D)	11/28/1995	2,100	240	230	51	230	---	---	---	---	---	---	98.92	---	---	---
S-2	02/02/1996	18,000	540	18	12	22	---	---	---	---	---	---	98.92	1.99	96.93	---
S-2 (D)	02/02/1996	11,000	600	18	13	28	---	---	---	---	---	---	98.92	---	---	---
S-2	03/09/1996	3,800	1,500	27	30	58	---	---	---	---	---	---	98.92	3.27	95.65	---
S-2 (D)	03/09/1996	3,500	1,300	24	21	53	---	---	---	---	---	---	98.92	---	---	---
S-2	08/22/1996	<20,000	490	<200	<200	<200	43,000	---	---	---	---	---	98.92	3.85	95.07	---
S-2 (D)	08/22/1996	<20,000	570	<200	<200	<200	59,000	51,000	---	---	---	---	98.92	---	---	---
S-2	11/07/1996	<5,000	290	<50	<50	<50	32,000	---	---	---	---	---	98.92	4.00	94.92	3.51
S-2 (D)	11/07/1996	<5,000	290	<50	<50	<50	32,000	---	---	---	---	---	98.92	---	---	---
S-2	02/20/1997	<10,000	520	<100	<100	<100	28,000	---	---	---	---	---	98.92	3.20	95.72	1
S-2 (D)	02/20/1997	<10,000	520	<100	<100	<100	35,000	---	---	---	---	---	98.92	---	---	---
S-2	05/30/1997	150	15	11	3.5	15	11	---	---	---	---	---	98.92	3.87	95.05	6
S-2	08/21/1997	1,600	220	<10	20	<10	18,000	---	---	---	---	---	98.92	3.29	95.63	3.3
S-2 (D)	08/21/1997	1,500	180	<10	16	<10	21,000	---	---	---	---	---	98.92	---	---	---
S-2	11/03/1997	1,000	94	<10	<10	<10	<50	---	---	---	---	---	98.92	4.02	94.90	1.8
S-2	01/20/1998	590	110	8.3	18	23	7,800	---	---	---	---	---	98.92	1.54	97.38	3.2
S-2	07/23/1998	2,600	840	<10	44	22	15,000	---	---	---	---	---	98.92	2.89	96.03	---
S-2	02/16/1999	680	140	6.1	10	18	19,000	---	---	---	---	---	98.92	1.86	97.06	2.0
S-2	09/07/1999	<2,000	248	<20.0	<20.0	<20.0	22,800	---	---	---	---	---	98.92	3.66	95.26	1.8
S-2	02/02/2000	103	0.825	<0.500	<0.500	<0.500	11,700	10,500	---	---	---	---	98.92	4.02	94.90	2.0

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Reading
S-2	04/26/2000	4,040	799	<20.0	40.9	255	19,000	17,100 e	---	---	---	---	98.92	2.63	96.29	2.3
S-2	07/25/2000	1,120	195	5.94	5.62	11.3	26,600	21,100	---	---	---	---	98.92	3.42	95.50	0.6
S-2	11/15/2000	613 e	35.6 e	<5.00 e	<5.00 e	7.36 e	18,100 e	17,800 e	---	---	---	---	98.92	3.31	95.61	1.8
S-2	02/12/2001	9,010	1,430	<20.0	219	848	28,300	17,000	---	---	---	---	98.92	1.47	97.45	2.0
S-2	06/07/2001	31,000	1,000	<25	630	3,200	---	17,000	---	---	---	---	98.92	3.43	95.49	10.4
S-2	08/31/2001	50,000	950	<20	1,500	6,000	---	17,000	---	---	---	---	98.92	4.72	94.20	0.9
S-2	12/05/2001	49,000	590	7.2	1,400	4,900	---	11,000	---	---	---	---	98.92	1.53	97.39	---
S-2	01/31/2002	37,000	860	<25	1,100	4,000	---	14,000	---	---	---	---	98.92	2.13	96.79	---
S-2	06/04/2002	150,000	800	<20	1,200	4,000	---	9,200	---	---	---	---	98.92	2.24	96.68	---
S-2	07/25/2002	37,000	350	<20	660	2,400	---	10,000	---	---	---	---	98.92	2.03	96.89	---
S-2	11/14/2002	25,000	510	<25	590	2,000	---	10,000	---	---	---	---	180.79	3.17	177.62	---
S-2	01/02/2003	---	710	<25	560	2,074	---	---	---	---	---	---	180.79	2.15	178.64	---
S-2	01/30/2003	21,000	670	<20	360	1,200	---	9,300	---	---	---	---	180.79	2.09	178.70	---
S-2	06/03/2003	42,000	800	<50	660	1,500	---	9,600	---	---	---	---	180.79	3.08	177.71	---
S-2	08/27/2003	31,000	630	<100	510	1,200	---	15,000	---	---	---	---	180.79	2.55	178.24	---
S-2	11/25/2003 f	8,400 d	<50	<50	<50	<100	---	4,500	---	---	---	---	180.79	---	---	---
S-2	02/05/2004	Well inaccessible	---	---	---	---	---	---	---	---	---	---	180.79	---	---	---
S-2	02/10/2004 f	<2,500	130	<25	<25	<50	---	3,800	---	---	---	---	180.79	---	---	---
S-2	04/21/2004	4,700	100	<25	<25	<50	---	2,900	---	---	---	---	180.79	7.38	173.41	---
S-2	08/12/2004	2,600	63	<13	<13	<25	---	1,400	1,200	<50	<50	<50	180.79	g	---	---
S-2	11/08/2004	3,600	<25	<25	<25	<50	---	1,300	---	---	---	---	180.79	g	---	---
S-2	05/16/2005	73 h	<0.50	<0.50	<0.50	<1.0	---	3.3	---	---	---	---	180.79	3.33	177.46	---
S-2	08/16/2005	10,000	370	<13	60	63	---	1,300	2,900	<50	<50	<50	180.79	4.03	176.76	---
S-2	11/03/2005	1,010	31.4	<0.500	2.81	31.4	---	349	880	---	---	---	180.79	---	---	---
S-2	02/16/2006	5,350	79.0	<0.500	2.90	59.5	---	687	690	---	---	---	180.79	5.86	174.93	---
S-2	05/05/2006	5,240	148	<0.500	17.1	48.8	---	815	478	---	---	---	180.79	---	---	---
S-2	08/21/2006	4,640	162	0.910	25.8	27.2	---	519	711	<0.500	<0.500	0.780	180.79	4.72	176.07	---
S-2	11/13/2006	2,100	200	<5.0	58	21	---	820	1,300	---	---	---	180.79	3.44	177.35	---
S-2	01/30/2007	3,300	250	<5.0	59	17	---	1,100	1,600	---	---	---	180.79	2.32	178.47	---
S-2	05/23/2007	4,600 i	410	2.3 j	92	24.8 j	---	890	620	---	---	---	180.79	2.61	178.18	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
							8020 (µg/L)	8260 (µg/L)								
S-2	08/09/2007	4,100 i	320	<10	30	11	---	650	1,400	<20	<20	<20	180.79	3.72	177.07	---
S-2	11/13/2007	4,900 i	230	<10	33	12	---	540	590	<20	<20	<20	180.79	2.31	178.48	---
S-2	02/13/2008	4,800 i	560	<10	67	37	---	1,500	610	---	---	---	180.79	1.83	178.96	---
S-2	05/20/2008	5,400	340	<10	11	17	---	460	310	---	---	---	180.79	2.90	177.89	---
S-2	08/04/2008	4,800	240	<10	<10	<10	---	390	640	<20	<20	<20	180.79	3.95	176.84	---
S-2	12/02/2008	3,700	120	<5.0	<5.0	<5.0	---	280	810	---	---	---	180.79	4.13	176.66	---
S-2	01/23/2009	3,500	210	<10	26	<10	---	640	650	---	---	---	180.79	2.85	177.94	---
S-2	05/05/2009	3,200	190	<5.0	7.6	5.5	---	340	350	---	---	---	180.79	2.48	178.31	---
S-2	08/07/2009	3,100	76	<1.0	<1.0	2.3	---	81	310	<2.0	<2.0	<2.0	180.79	4.78	176.01	---
S-2	02/03/2010	4,000	180	<1.0	34	9.1	---	420	190	---	---	---	180.79	2.25	178.54	---
S-2	08/31/2010	3,400	120	<1.0	<1.0	1.8	---	83	380	<2.0	<2.0	<2.0	180.79	4.32	176.47	---
S-2	02/10/2011	3,600	220	<2.0	13	<4.0	---	330	450	---	---	---	180.79	2.51	178.28	---
S-2	07/22/2011	4,000	160	<1.2	5.0	6.4	---	200	270	<2.5	<2.5	<2.5	180.79	2.78	178.01	---
S-2	02/07/2012	3,800	130	<2.5	6.3	<5.0	---	200	170	---	---	---	180.79	2.53	178.26	---
S-2	07/19/2012	2,800	70	<1.3	<1.3	<2.5	---	120	170	<1.3	<1.3	<1.3	180.79	4.24	176.55	---
S-2	01/25/2013	4,100	230	<1.0	25	4.6	---	280	370	---	---	---	180.79	2.49	178.30	---
S-2	08/08/2013	3,800	130	<2.5	<2.5	<5.0	---	160	390	<2.5	<2.5	<2.5	180.79	4.07	176.72	---
S-3	09/22/1989	<50 a	<0.5 a	<0.5 a	<1.5 a	<1.5 a	---	---	---	---	---	---	---	---	---	---
S-3	10/05/1989	---	---	---	---	---	---	---	---	---	---	---	101.67	3.97	97.70	---
S-3	11/13/1989	<50 a	<0.5 a	<0.5 a	<1.5 a	<1.5 a	---	---	---	---	---	---	101.67	3.76	97.91	---
S-3	01/18/1990	<50 a	<0.5 a	<0.5 a	<0.5 a	<0.5 a	---	---	---	---	---	---	101.67	2.43	99.24	---
S-3	02/20/1989	---	---	---	---	---	---	---	---	---	---	---	101.67	2.27	99.40	---
S-3	04/11/1990	<50 a	<0.3 a	<0.3 a	<0.3 a	<0.3 a	---	---	---	---	---	---	101.67	2.88	98.79	---
S-3	07/27/1990	<50 a	<0.3 a	<0.3 a	<0.3 a	<0.3 a	---	---	---	---	---	---	101.67	3.55	98.12	---
S-3	10/17/1990	<50 a	<0.3 a	<0.3 a	<0.3 a	<0.3 a	---	---	---	---	---	---	101.67	4.29	97.38	---
S-3	01/25/1991	<30	<0.3	<0.3	<0.3	<0.3	---	---	---	---	---	---	101.67	3.84	97.83	---
S-3	06/03/1991	<30	<0.3	0.3	0.3	0.3	---	---	---	---	---	---	101.67	3.25	98.42	---
S-3	08/03/1991	<30	<0.3	<0.3	<0.3	<0.3	---	---	---	---	---	---	101.67	4.73	96.94	---
S-3	11/22/1991	<30	<0.3	<0.3	<0.3	<0.3	---	---	---	---	---	---	101.67	4.81	96.86	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
S-3	03/13/1992	<30	<0.3	0.3	0.3	0.3	---	---	---	---	---	---	101.67	2.29	99.38	---
S-3	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	3.62	98.05	---
S-3	08/19/1992	<50	<0.5	<0.5	<0.5	0.5	---	---	---	---	---	---	101.67	4.66	97.01	---
S-3	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	4.51	97.16	---
S-3	02/10/1993	30	1.9	3.2	2.4	5.6	---	---	---	---	---	---	101.67	4.36	97.31	---
S-3	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	2.91	98.76	---
S-3 (D)	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	---	---	---
S-3	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	3.70	97.97	---
S-3	11/02/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	101.67	---	---	---
S-3	12/16/1993	---	---	---	---	---	---	---	---	---	---	---	101.67	2.12	99.55	---
S-3	02/01/1994	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	2.90	98.77	---
S-3	05/04/1994	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	2.54	99.13	---
S-3	08/18/1994	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	3.51	98.16	---
S-3	11/09/1994	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	2.44	99.23	---
S-3	02/22/1995	80	<0.5	0.50	<0.5	0.5	---	---	---	---	---	---	101.67	4.12	97.55	---
S-3	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	2.83	98.84	---
S-3	08/30/1995	<50	0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	3.16	98.51	---
S-3	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	3.87	97.80	---
S-3	02/02/1996	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	2.24	99.43	---
S-3	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	101.67	3.05	98.62	---
S-3	08/22/1996	<50	0.8	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	101.67	2.85	98.82	4.6
S-3	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	101.67	3.35	98.32	4.6
S-3	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	101.67	3.00	98.67	1
S-3	05/30/1997	140	14	10	3.3	14	8.6	---	---	---	---	---	101.67	3.00	98.67	8
S-3	08/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	101.67	2.94	98.73	3.3
S-3	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	101.67	3.36	98.31	2.4
S-3 (D)	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	101.67	---	---	---
S-3	01/20/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	101.67	---	---	---
S-3	07/23/1998	---	---	---	---	---	---	---	---	---	---	---	101.67	2.69	98.98	---
S-3	02/16/1999	<50	<0.50	0.92	0.59	3.9	3.7	---	---	---	---	---	101.67	2.20	99.47	2.8

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
S-3	09/07/1999	---	---	---	---	---	---	---	---	---	---	---	101.67	2.81	98.86	---
S-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	101.67	3.97	97.70	2.7
S-3	04/26/2000	---	---	---	---	---	---	---	---	---	---	---	101.67	2.96	98.71	---
S-3	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	101.67	3.00	98.67	0.8
S-3	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	101.67	2.86	98.81	---
S-3	02/12/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	101.67	2.47	99.20	2.3
S-3	06/07/2001	---	---	---	---	---	---	---	---	---	---	---	101.67	2.78	98.89	---
S-3	08/31/2001	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	101.67	3.94	97.73	0.5
S-3	12/05/2001	---	---	---	---	---	---	---	---	---	---	---	101.67	2.05	99.62	---
S-3	01/31/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	101.67	2.29	99.38	---
S-3	06/04/2002	---	---	---	---	---	---	---	---	---	---	---	101.67	2.56	99.11	---
S-3	07/25/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	101.67	2.70	98.97	---
S-3	11/14/2002	---	---	---	---	---	---	---	---	---	---	---	183.54	3.43	180.11	---
S-3	01/30/2003	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	183.54	2.16	181.38	---
S-3	01/30/2003	---	---	---	---	---	---	---	---	---	---	---	183.54	2.65	180.89	---
S-3	08/27/2003	<50	<0.50	<0.50	<0.50	<1.0	---	0.55	---	---	---	---	183.54	2.75	180.79	---
S-3	11/25/2003	---	---	---	---	---	---	---	---	---	---	---	183.54	2.85	180.69	---
S-3	02/05/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	183.54	2.04	181.50	---
S-3	04/21/2004	---	---	---	---	---	---	---	---	---	---	---	183.54	2.50	181.04	---
S-3	08/12/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	<5.0	<2.0	<2.0	<2.0	183.54	3.91	179.63	---
S-3	11/08/2004	---	---	---	---	---	---	---	---	---	---	---	183.54	2.84	180.70	---
S-3	05/16/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	183.54	3.05	180.49	---
S-3	08/16/2005	<100	<1.0	<1.0	<1.0	<2.0	---	<1.0	<10	<4.0	<4.0	<4.0	183.54	3.42	180.12	---
S-3	11/03/2005	---	---	---	---	---	---	---	---	---	---	---	183.54	4.09	179.45	---
S-3	02/16/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	183.54	2.25	181.29	---
S-3	05/05/2006	---	---	---	---	---	---	---	---	---	---	---	183.54	2.27	181.27	---
S-3	08/21/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	36.4	<0.500	<0.500	0.570	183.54	3.17	180.37	---
S-3	11/13/2006	---	---	---	---	---	---	---	---	---	---	---	183.54	3.42	180.12	---
S-3	01/30/2007	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	183.54	2.36	181.18	---
S-3	05/23/2007	---	---	---	---	---	---	---	---	---	---	---	183.54	2.65	180.89	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (mg/L)
							8020 (µg/L)	8260 (µg/L)								
S-3	08/09/2007	<50 i	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	183.54	2.93	180.61	---
S-3	11/13/2007	---	---	---	---	---	---	---	---	---	---	---	183.54	2.04	181.50	---
S-3	02/13/2008	<50 i	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	183.54	2.03	181.51	---
S-3	05/20/2008	---	---	---	---	---	---	---	---	---	---	---	183.54	2.75	180.79	---
S-3	08/04/2008	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	183.54	3.52	180.02	---
S-3	12/02/2008	---	---	---	---	---	---	---	---	---	---	---	183.54	3.68	179.86	---
S-3	01/23/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	183.54	2.52	181.02	---
S-3	05/05/2009	---	---	---	---	---	---	---	---	---	---	---	183.54	2.02	181.52	---
S-3	08/07/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	183.54	4.61	178.93	---
S-3	02/03/2010	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	183.54	1.89	181.65	---
S-3	08/31/2010	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	183.54	3.44	180.10	---
S-3	02/10/2011	<50	<0.50	<0.50	<0.50	<1.0	---	<1.0	---	---	---	---	183.54	1.91	181.63	---
S-3	07/22/2011	<50	<0.50	<0.50	<0.50	<1.0	---	<1.0	<10	<1.0	<1.0	<1.0	183.54	2.42	181.12	---
S-3	02/07/2012	<50	<0.50	<0.50	<0.50	<1.0	---	<1.0	---	---	---	---	183.54	1.97	181.57	---
S-3	07/19/2012	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	183.54	3.49	180.05	---
S-3	01/25/2013	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	183.54	2.30	181.24	---
S-3	08/08/2013	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	183.54	4.10	179.44	---
H-1	12/05/2001	150	<0.50	8.3	1.6	16	---	52	---	---	---	---	---	1.43	---	---
H-1	01/31/2002	3,200	12	<0.50	5.7	3.7	---	650	---	---	---	---	---	2.34	---	---
H-1	06/04/2002	280,000	<10	150	62	9,500	---	<100	---	---	---	---	---	2.56	---	---
H-1	07/25/2002	8,200	2.2	46	5.3	99	---	<10	---	---	---	---	---	2.83	---	---
H-1	11/14/2002	1,700	2.1	2.6	1.5	14	---	380	---	---	---	---	180.63	3.74	176.89	---
H-1	01/02/2003	---	1.1	<0.50	<0.50	3.6	---	---	---	---	---	---	180.63	1.45	179.18	---
H-1	01/30/2003	630	0.99	2.0	1.6	12	---	21	---	---	---	---	180.63	2.10	178.53	---
H-1	06/03/2003	55	<0.50	1.3	<0.50	2.4	---	2.6	---	---	---	---	180.63	3.38	177.25	---
H-1	08/27/2003	<50	0.55	<0.50	<0.50	1.2	---	2.8	---	---	---	---	180.63	4.10	176.53	---
H-1	11/25/2003	77 d	9.7	<0.50	<0.50	<1.0	---	21	---	---	---	---	180.63	3.72	176.91	---
H-1	02/05/2004	380	41	1.2	5.1	8.0	---	21	---	---	---	---	180.63	1.69	178.94	---
H-1	04/21/2004	640	27	0.63	2.0	2.3	---	33	---	---	---	---	180.63	2.14	178.49	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
H-1	08/12/2004	340	18	0.75	<0.50	1.7	---	43	---	---	---	---	180.63	4.78	175.85	---
H-1	11/08/2004	1,500	29	<1.0	1.7	<2.0	---	57	---	---	---	---	180.63	4.17	176.46	---
H-1	05/16/2005	150 h	<0.50	<0.50	<0.50	<1.0	---	48	---	---	---	---	180.63	4.16	176.47	---
H-1	08/16/2005	100 h	<0.50	<0.50	<0.50	<1.0	---	57	---	---	---	---	180.63	4.66	175.97	---
H-1	11/03/2005	<50.0	<0.500	<0.500	<0.500	<0.500	---	12.1	---	---	---	---	180.63	5.13	175.50	---
H-1	02/16/2006	4,230	<0.500	<0.500	37.7	80.5	---	7.12	---	---	---	---	180.63	1.87	178.76	---
H-1	05/05/2006	368	<0.500	<0.500	2.56	<0.500	---	22.2	---	---	---	---	180.63	2.21	178.42	---
H-1	08/21/2006	---	---	---	---	---	---	---	---	---	---	---	180.63	4.62	176.01	---
H-1	11/13/2006	---	---	---	---	---	---	---	---	---	---	---	180.63	3.89	176.74	---
H-1	01/30/2007	---	---	---	---	---	---	---	---	---	---	---	180.63	3.04	177.59	---
H-1	05/23/2007	330 i	7.9	0.32 j	0.48 j	0.61 j	---	74	---	---	---	---	180.63	3.38	177.25	---
H-1	08/09/2007	---	---	---	---	---	---	---	---	---	---	---	180.63	4.30	176.33	---
H-1	11/13/2007	---	---	---	---	---	---	---	---	---	---	---	180.63	1.97	178.66	---
H-1	02/13/2008	---	---	---	---	---	---	---	---	---	---	---	180.63	1.78	178.85	---
H-1	05/20/2008	230	19	<1.0	2.8	2.2	---	23	---	---	---	---	180.63	3.60	177.03	---
H-1	08/04/2008	---	---	---	---	---	---	---	---	---	---	---	180.63	3.27	177.36	---
H-1	12/02/2008	---	---	---	---	---	---	---	---	---	---	---	180.63	4.33	176.30	---
H-1	01/23/2009	---	---	---	---	---	---	---	---	---	---	---	180.63	2.03	178.60	---
H-1	05/05/2009	290	15	<1.0	7.1	4.2	---	36	---	---	---	---	180.63	2.76	177.87	---
H-1	08/07/2009	---	---	---	---	---	---	---	---	---	---	---	180.63	5.49	175.14	---
H-1	02/03/2010	2,700	85	1.5	130	62	---	24	---	---	---	---	180.63	2.45	178.18	---
H-1	08/31/2010	---	---	---	---	---	---	---	---	---	---	---	180.63	4.12	176.51	---
H-1	02/10/2011	1,800	51	1.3	120	65	---	36	---	---	---	---	180.63	3.10	177.53	---
H-1	07/22/2011	---	---	---	---	---	---	---	---	---	---	---	180.63	3.52	177.11	---
H-1	02/07/2012	560	20	<0.50	26	6.0	---	23	---	---	---	---	180.63	2.68	177.95	---
H-1	07/19/2012	---	---	---	---	---	---	---	---	---	---	---	180.63	5.48	175.15	---
H-1	01/25/2013	260	3.5	<0.50	1.1	<1.0	---	20	---	---	---	---	180.63	3.69	176.94	---
H-1	08/08/2013	---	---	---	---	---	---	---	---	---	---	---	180.63	5.44	175.19	---
T-1	05/30/1997	---	---	---	---	---	---	---	---	---	---	---	---	2.65	---	---

TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
T-1	08/21/1997	---	---	---	---	---	---	---	---	---	---	---	---	2.69	---	---
T-1	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	---	3.09	---	---
T-1	01/20/1998	---	---	---	---	---	---	---	---	---	---	---	---	0.61	---	---
T-1	07/23/1998	---	---	---	---	---	---	---	---	---	---	---	---	2.32	---	---
T-1	02/16/1999	---	---	---	---	---	---	---	---	---	---	---	---	1.95	---	---
T-1	09/07/1999	---	---	---	---	---	---	---	---	---	---	---	---	2.48	---	---
T-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	---	2.66	---	2.5
T-1	04/26/2000	---	---	---	---	---	---	---	---	---	---	---	---	2.56	---	---
T-1	07/25/2000	---	---	---	---	---	---	---	---	---	---	---	---	2.60	---	---
T-1	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	---	2.47	---	---
T-1	02/12/2001	---	---	---	---	---	---	---	---	---	---	---	---	1.20	---	---
T-1	06/07/2001	---	---	---	---	---	---	---	---	---	---	---	---	2.36	---	---
T-1	08/31/2001	---	---	---	---	---	---	---	---	---	---	---	---	3.45	---	---
T-1	01/09/2002	---	---	---	---	---	---	---	---	---	---	183.08	---	---	---	---
T-2	05/30/1997	---	---	---	---	---	---	---	---	---	---	---	---	1.81	---	---
T-2	08/21/1997	---	---	---	---	---	---	---	---	---	---	---	---	1.89	---	---
T-2	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	---	2.25	---	---
T-2	01/20/1998	---	---	---	---	---	---	---	---	---	---	---	---	0.55	---	---
T-2	07/23/1998	---	---	---	---	---	---	---	---	---	---	---	---	1.21	---	---
T-2	02/16/1999	---	---	---	---	---	---	---	---	---	---	---	---	1.08	---	---
T-2	09/07/1999	---	---	---	---	---	---	---	---	---	---	---	---	0.72	---	---
T-2	02/02/2000	1,540	53.4	20.8	11.4	21.8	1,330	---	---	---	---	---	---	0.98	---	3.0
T-2	04/26/2000	---	---	---	---	---	---	---	---	---	---	---	---	1.02	---	---
T-2	07/25/2000	815	17.6	10.8	1.63	3.47	133	---	---	---	---	---	---	1.80	---	0.8
T-2	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	---	1.68	---	---
T-2	02/12/2001	310	7.48	7.76	0.693	2.28	301	---	---	---	---	---	---	1.45	---	1.6
T-2	06/07/2001	---	---	---	---	---	---	---	---	---	---	---	---	1.57	---	---
T-2	08/31/2001	720	30	0.67	<0.50	2.3	---	540	---	---	---	---	---	2.69	---	0.8
T-2	12/05/2001	---	---	---	---	---	---	---	---	---	---	---	---	0.58	---	---



TABLE 1

GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE		TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water (ft TOC)	Elevation (ft MSL)	Reading (mg/L)
T-2	01/31/2002	---	---	---	---	---	---	---	---	---	---	---	---	1.32	---	---
T-2	02/04/2002	1,000	41	30	4.6	20	---	1,200	---	---	---	---	---	1.46	---	---
T-2	06/04/2002	---	---	---	---	---	---	---	---	---	---	---	---	1.50	---	---
T-2	07/25/2002	660	11	0.59	<0.50	2.6	---	97	---	---	---	---	---	1.53	---	---
T-2	11/14/2002	---	---	---	---	---	---	---	---	---	---	182.30	2.39	179.91	---	---
T-2	01/30/2003	560	11	<0.50	<0.50	0.53	---	160	---	---	---	182.30	1.01	181.29	---	---
T-2	06/03/2003	---	---	---	---	---	---	---	---	---	---	182.30	1.55	180.75	---	---
T-2	08/27/2003	180 d	1.6	<0.50	<0.50	<1.0	---	10	---	---	---	182.30	1.60	180.70	---	---
T-2	11/25/2003	---	---	---	---	---	---	---	---	---	---	182.30	1.64	180.66	---	---
T-2	02/05/2004	940	110	10	2.4	14	---	67	---	---	---	182.30	0.66	181.64	---	---
T-2	04/21/2004	---	---	---	---	---	---	---	---	---	---	182.30	1.50	180.80	---	---
T-2	08/12/2004	450	<0.50	<0.50	<0.50	<1.0	---	33	---	---	---	182.30	2.72	179.58	---	---
T-2	11/08/2004	---	---	---	---	---	---	---	---	---	---	182.30	1.72	180.58	---	---
T-3	05/30/1997	---	---	---	---	---	---	---	---	---	---	---	---	2.31	---	---
T-3	08/21/1997	---	---	---	---	---	---	---	---	---	---	---	---	1.57	---	---
T-3	11/03/1997	---	---	---	---	---	---	---	---	---	---	---	---	3.50	---	---
T-3	01/20/1998	---	---	---	---	---	---	---	---	---	---	---	---	0.76	---	---
T-3	07/23/1998	---	---	---	---	---	---	---	---	---	---	---	---	0.82	---	---
T-3	02/16/1999	---	---	---	---	---	---	---	---	---	---	---	---	0.55	---	---
T-3	09/07/1999	---	---	---	---	---	---	---	---	---	---	---	---	2.89	---	---
T-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	---	3.02	---	2.9
T-3	04/26/2000	---	---	---	---	---	---	---	---	---	---	---	---	2.81	---	---
T-3	07/25/2000	---	---	---	---	---	---	---	---	---	---	---	---	3.00	---	---
T-3	11/15/2000	---	---	---	---	---	---	---	---	---	---	---	---	1.70	---	---
T-3	02/12/2001	---	---	---	---	---	---	---	---	---	---	---	---	2.11	---	---
T-3	06/07/2001	---	---	---	---	---	---	---	---	---	---	---	---	1.68	---	---
T-3	08/31/2001	---	---	---	---	---	---	---	---	---	---	---	---	3.14	---	---
T-3	01/09/2002	---	---	---	---	---	---	---	---	---	---	180.95	---	---	---	---

**GROUNDWATER DATA  
SHELL-BRANDED SERVICE STATION  
5755 BROADWAY, OAKLAND, CALIFORNIA**

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE	MTBE	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TOC (ft MSL)	Depth to	GW	DO
							8020 (µg/L)	8260 (µg/L)						Water	Elevation	Reading

Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to June 7, 2001, analyzed by EPA Method 8015 unless otherwise noted.  
 BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to June 7, 2001, analyzed by EPA Method 8020 unless otherwise noted.

MTBE = Methyl tertiary-butyl ether analyzed by method noted

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

TOC = Top of casing elevation, in feet relative to mean sea level

SPH = Separate-phase hydrocarbon

GW = Groundwater

DO = Dissolved oxygen

µg/L = Micrograms per liter

ft = Feet

MSL = Mean sea level

mg/L = Milligrams per liter

<x = Not detected at reporting limit x

--- = Not analyzed or not available

(D) = Duplicate sample

a = Analytical method unknown

b = Ethylbenzene and total xylenes combined

c = Temporary datum of 100.00 feet assigned to TOC

d = Chromatogram pattern indicated an unidentified hydrocarbon/Hydrocarbon does not match pattern of laboratory's standard.

e = Sample analyzed outside of EPA recommended hold time.

f = Sampled by client (Cambria Environmental Technology)

g = Unable to gauge depth to water

h = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

i = Analyzed by EPA Method 8015B (M).

GROUNDWATER DATA  
 SHELL-BRANDED SERVICE STATION  
 5755 BROADWAY, OAKLAND, CALIFORNIA

<i>Well ID</i>	<i>Date</i>	<i>TPHg</i> ( $\mu\text{g/L}$ )	<i>B</i> ( $\mu\text{g/L}$ )	<i>T</i> ( $\mu\text{g/L}$ )	<i>E</i> ( $\mu\text{g/L}$ )	<i>X</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> <i>8020</i> ( $\mu\text{g/L}$ )	<i>MTBE</i> <i>8260</i> ( $\mu\text{g/L}$ )	<i>TBA</i> ( $\mu\text{g/L}$ )	<i>DIPE</i> ( $\mu\text{g/L}$ )	<i>ETBE</i> ( $\mu\text{g/L}$ )	<i>TAME</i> ( $\mu\text{g/L}$ )	<i>TOC</i> ( <i>ft MSL</i> )	<i>Depth to</i> <i>Water</i> ( <i>ft TOC</i> )	<i>GW</i> <i>Elevation</i> ( <i>ft MSL</i> )	<i>DO</i> <i>Reading</i> ( <i>mg/L</i> )
----------------	-------------	------------------------------------	---------------------------------	---------------------------------	---------------------------------	---------------------------------	---	---	-----------------------------------	------------------------------------	------------------------------------	------------------------------------	---------------------------------	--	--	--

j = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

Site wells surveyed January 9, 2002 by Virgil Chavez Land Surveying

APPENDIX A

BLAINE TECH SERVICES, INC. -  
FIELD NOTES

## WELL GAUGING DATA

Project # 130808-0002 Date 8/8/13 Client SWEIA

Site 5755 Broadway, Oakland, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes
S-1	1324	3					4.01	11.27	↓	
S-2	1333	4				4.07	9.43			
S-3	1320	4				4.00	9.50			
H-1	1329	4				5.44	11.98			

## SHELL WELL MONITORING DATA SHEET

BTS #: 130808- <del>W</del>	Site: 5755 Broadway, Oakland, CA
Sampler: <del>W</del>	Date: 8/8/13
Well I.D.: S-1	Well Diameter: 2 <del>3</del> <del>4</del> 6 8
Total Well Depth (TD): 11.27	Depth to Water (DTW): 4.01
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.46	

Purge Method: Bailer Disposable Bailer <u>Positive Air Displacement</u> <del>Electric Submersible</del>	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	--

9.7 (Gals.) X	3	= 8.1 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <del>ASD</del> )	Turbidity (NTUs)	Gals. Removed	Observations
1350	75.1	8.86	287	27	2.7	
WELL	DEWATERED	ALTERED	@	2.7	GALLS	
1550	69.2	8.99	297	101	—	

Did well dewater?  Yes  No      Gallons actually evacuated: 2.7

Sampling Date: 8/8/13      Sampling Time: 1550      Depth to Water: 7.39 2 HR

Sample I.D.: S-1      Laboratory: Fest America Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see below

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

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

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

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>130808-ww2</u>	Site: <u>5755 BROADWAY, OAKLAND, CA</u>
Sampler: <u>ww</u>	Date: <u>8/8/13</u>
Well I.D.: <u>S-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth (TD): <u>9.43</u>	Depth to Water (DTW): <u>4.07</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>5.14</u>	

Purge Method: Bailer      Waterra      Sampling Method: Bailer  
 Disposable Bailer      Peristaltic      Disposable Bailer  
 Positive Air Displacement      Extraction Pump      Extraction Port  
Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing

Other: \_\_\_\_\_

3.5 (Gals.) X 3 = 10.5 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1358	70.8	7.74	645	26	3.5	
WELL	DEWATERED @ 3.5 GALS					
1505	68.5	7.20	683	126	—	

Did well dewater? Yes No      Gallons actually evacuated: 3.5

Sampling Date: 8/8/13      Sampling Time: 1505      Depth to Water: 5.14

Sample I.D.: S-2      Laboratory: Test America Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See son

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

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: \_\_\_\_\_ mg/L      Post-purge: \_\_\_\_\_ mg/L

O.R.P. (if req'd): Pre-purge: \_\_\_\_\_ mV      Post-purge: \_\_\_\_\_ mV

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>130808-ww2</u>	Site: <u>5755 BROADWAY, OAKLAND, CA</u>
Sampler: <u>ww</u>	Date: <u>8/8/13</u>
Well I.D.: <u>S-3</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth (TD): <u>9.50</u>	Depth to Water (DTW): <u>4.10</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>5.18</u>	

Purge Method:  Bailer       Waterra      Sampling Method:  Bailer  
 Disposable Bailer       Peristaltic       Disposable Bailer  
 Positive Air Displacement       Extraction Pump       Extraction Port  
 Electric Submersible       Other \_\_\_\_\_       Dedicated Tubing

Other: \_\_\_\_\_

$\underline{3.5} \text{ (Gals.)} \times \underline{3} = \underline{10.5} \text{ Gals.}$ <p style="margin: 0;">1 Case Volume      Specified Volumes      Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1340	73.7	8.26	669	13	3.5	
<u>well</u>	<u>dewatered</u>			<u>3.5 GALS</u>		
1425	71.7	8.14	850	585	—	

Did well dewater?  Yes    No      Gallons actually evacuated: 3.5

Sampling Date: 8/8/13    Sampling Time: 1425    Depth to Water: 5.06

Sample I.D.: S-3      Laboratory: Test America    Other \_\_\_\_\_

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: See Saw

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

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other:

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



INCIDENT # 9899 5756

ADDRESS 5755 BROADWAY

DATE: 8/2/13

CITY & STATE OAKLAND, CA

Well ID	Observations Upon Arrival													Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials		
	Manway Cover, Type, Condition & Size				Well Labeled / Painted Properly*		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition			Note Repairs Made				
S-1	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N		
S-2	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N		
S-3	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N		
H-1	Standpipe	Flush	G	P	Size (inch) 20x33	Y	N	G	R	G	R	NL	G	P	V AULT	Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
TOTAL # CAPS REPLACED = 0													TOTAL # OF LOCKS REPLACED = 0						
Condition of Soil Boring Patches or Abandoned Monitoring Wells:			G	P	N/A	If POOR, Borings/Well IDs or Location Description:								Y	N				
Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted			Photos of Condition		Repair Date and PM Initials
NA																			
Building																			
Building w/ Fence Comp.		G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A				Y	N	
Fenced Compound																			
Trailer																			
Number of Drums On-site	Does the Label Reveal the Source of the Contents		Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved			Photos of Drum Condition		Date Drums Removed from Site and PM Initials
4	Y		N			G			Y		Y			EMPTY STICKERS ON 2 DRUMS			Y	N	

G = Good (Acceptable) R = Replaced  
P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

\* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.  
Version 2.4, March 2008

2 - OTHER DRUMS FEEL EMPTY

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

WILLIAM WONG / RIANNE TECH SERVICES  
Print or type Name of Field Personnel & Consultant Company

APPENDIX B

TESTAMERICA LABORATORIES INC. -  
ANALYTICAL REPORT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614-5817  
Tel: (949)261-1022

TestAmerica Job ID: 440-54183-1  
Client Project/Site: 5755 Broadway, Oakland, CA

For:  
Conestoga-Rovers & Associates, Inc.  
5900 Hollis Street  
Suite A  
Emeryville, California 94608

Attn: Peter Schaefer



Authorized for release by:  
8/23/2013 10:03:28 AM

Philip Sanelle, Project Manager I  
philip.sanelle@testamericainc.com

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Sample Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-54183-1	S-1	Ground Water	08/08/13 15:50	08/10/13 09:45
440-54183-2	S-2	Ground Water	08/08/13 15:05	08/10/13 09:45
440-54183-3	S-3	Ground Water	08/08/13 14:25	08/10/13 09:45

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

---

**Job ID: 440-54183-1**

---

**Laboratory: TestAmerica Irvine**

**Narrative**

---

**Job Narrative**  
**440-54183-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 8/10/2013 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2° C.

**GC/MS VOA**

No analytical or quality issues were noted.

**VOA Prep**

No analytical or quality issues were noted.

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

**Client Sample ID: S-1**

**Lab Sample ID: 440-54183-1**

Date Collected: 08/08/13 15:50

Matrix: Ground Water

Date Received: 08/10/13 09:45

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			08/21/13 00:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane (Surr)	97		80 - 120					08/21/13 00:44	1
4-Bromofluorobenzene (Surr)	96		80 - 120					08/21/13 00:44	1
Toluene-d8 (Surr)	106		80 - 120					08/21/13 00:44	1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			08/21/13 00:44	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			08/21/13 00:44	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			08/21/13 00:44	1
Ethylbenzene	ND		0.50		ug/L			08/21/13 00:44	1
<b>Methyl-t-Butyl Ether (MTBE)</b>	<b>2.5</b>		0.50		ug/L			08/21/13 00:44	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			08/21/13 00:44	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/21/13 00:44	1
Toluene	ND		0.50		ug/L			08/21/13 00:44	1
Xylenes, Total	ND		1.0		ug/L			08/21/13 00:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	96		80 - 120					08/21/13 00:44	1
Dibromofluoromethane (Surr)	97		80 - 120					08/21/13 00:44	1
Toluene-d8 (Surr)	106		80 - 120					08/21/13 00:44	1

**Client Sample ID: S-2**

**Lab Sample ID: 440-54183-2**

Date Collected: 08/08/13 15:05

Matrix: Ground Water

Date Received: 08/10/13 09:45

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	3800		250		ug/L			08/21/13 01:14	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane (Surr)	99		80 - 120					08/21/13 01:14	5
4-Bromofluorobenzene (Surr)	99		80 - 120					08/21/13 01:14	5
Toluene-d8 (Surr)	108		80 - 120					08/21/13 01:14	5

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	130		2.5		ug/L			08/21/13 01:14	5
Isopropyl Ether (DIPE)	ND		2.5		ug/L			08/21/13 01:14	5
Ethyl-t-butyl ether (ETBE)	ND		2.5		ug/L			08/21/13 01:14	5
Ethylbenzene	ND		2.5		ug/L			08/21/13 01:14	5
<b>Methyl-t-Butyl Ether (MTBE)</b>	<b>160</b>		2.5		ug/L			08/21/13 01:14	5
Tert-amyl-methyl ether (TAME)	ND		2.5		ug/L			08/21/13 01:14	5
tert-Butyl alcohol (TBA)	390		50		ug/L			08/21/13 01:14	5
Toluene	ND		2.5		ug/L			08/21/13 01:14	5
Xylenes, Total	ND		5.0		ug/L			08/21/13 01:14	5

TestAmerica Irvine

## Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

**Client Sample ID: S-2**

**Lab Sample ID: 440-54183-2**

Date Collected: 08/08/13 15:05

Matrix: Ground Water

Date Received: 08/10/13 09:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		08/21/13 01:14	5
Dibromofluoromethane (Surr)	99		80 - 120		08/21/13 01:14	5
Toluene-d8 (Surr)	108		80 - 120		08/21/13 01:14	5

**Client Sample ID: S-3**

**Lab Sample ID: 440-54183-3**

Date Collected: 08/08/13 14:25

Matrix: Ground Water

Date Received: 08/10/13 09:45

**Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			08/21/13 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		80 - 120		08/21/13 01:44	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/21/13 01:44	1
Toluene-d8 (Surr)	105		80 - 120		08/21/13 01:44	1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			08/21/13 01:44	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			08/21/13 01:44	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			08/21/13 01:44	1
Ethylbenzene	ND		0.50		ug/L			08/21/13 01:44	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			08/21/13 01:44	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			08/21/13 01:44	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/21/13 01:44	1
Toluene	ND		0.50		ug/L			08/21/13 01:44	1
Xylenes, Total	ND		1.0		ug/L			08/21/13 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120		08/21/13 01:44	1
Dibromofluoromethane (Surr)	98		80 - 120		08/21/13 01:44	1
Toluene-d8 (Surr)	105		80 - 120		08/21/13 01:44	1



## Method Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

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Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTM S	Volatile Organic Compounds by GC/MS	SW846	TAL IRV

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

## Client Sample ID: S-1

Date Collected: 08/08/13 15:50

Date Received: 08/10/13 09:45

## Lab Sample ID: 440-54183-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	125878	08/21/13 00:44	BD	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	125879	08/21/13 00:44	BD	TAL IRV

## Client Sample ID: S-2

Date Collected: 08/08/13 15:05

Date Received: 08/10/13 09:45

## Lab Sample ID: 440-54183-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	10 mL	10 mL	125878	08/21/13 01:14	BD	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		5	10 mL	10 mL	125879	08/21/13 01:14	BD	TAL IRV

## Client Sample ID: S-3

Date Collected: 08/08/13 14:25

Date Received: 08/10/13 09:45

## Lab Sample ID: 440-54183-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	125878	08/21/13 01:44	BD	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	125879	08/21/13 01:44	BD	TAL IRV

### Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-125878/4

Matrix: Water

Analysis Batch: 125878

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			08/20/13 20:45	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			08/20/13 20:45	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			08/20/13 20:45	1
Ethylbenzene	ND		0.50		ug/L			08/20/13 20:45	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			08/20/13 20:45	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			08/20/13 20:45	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			08/20/13 20:45	1
Toluene	ND		0.50		ug/L			08/20/13 20:45	1
Xylenes, Total	ND		1.0		ug/L			08/20/13 20:45	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	95		80 - 120		08/20/13 20:45	1
Dibromofluoromethane (Surr)	98		80 - 120		08/20/13 20:45	1
Toluene-d8 (Surr)	104		80 - 120		08/20/13 20:45	1

Lab Sample ID: LCS 440-125878/5

Matrix: Water

Analysis Batch: 125878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl Ether (DIPE)	25.0	27.2		ug/L		109	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	28.3		ug/L		113	60 - 136
Ethylbenzene	25.0	28.1		ug/L		113	70 - 130
m,p-Xylene	50.0	59.5		ug/L		119	70 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	28.2		ug/L		113	63 - 131
o-Xylene	25.0	31.1		ug/L		124	70 - 130
Tert-amyl-methyl ether (TAME)	25.0	27.7		ug/L		111	57 - 139
tert-Butyl alcohol (TBA)	125	136		ug/L		109	70 - 130
Toluene	25.0	28.8		ug/L		115	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: 440-54184-A-1 MS

Matrix: Water

Analysis Batch: 125878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl Ether (DIPE)	40		25.0	66.5		ug/L		106	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	26.6		ug/L		106	70 - 130
Ethylbenzene	1.3		25.0	30.1		ug/L		115	70 - 130
m,p-Xylene	ND		50.0	61.6		ug/L		123	70 - 133
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.0		ug/L		108	70 - 130

TestAmerica Irvine

## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-54184-A-1 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 125878

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
o-Xylene	ND		25.0	31.5		ug/L		126	70 - 133
Tert-amyl-methyl ether (TAME)	ND		25.0	26.8		ug/L		107	68 - 133
tert-Butyl alcohol (TBA)	ND		125	137		ug/L		109	70 - 130
Toluene	ND		25.0	28.6		ug/L		115	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	97		80 - 120
Toluene-d8 (Surr)	105		80 - 120

Lab Sample ID: 440-54184-A-1 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 125878

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	0.74		25.0	28.3		ug/L		110	66 - 130	1	20
Isopropyl Ether (DIPE)	40		25.0	67.1		ug/L		109	64 - 138	1	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	26.9		ug/L		108	70 - 130	1	25
Ethylbenzene	1.3		25.0	30.1		ug/L		115	70 - 130	0	20
m,p-Xylene	ND		50.0	60.8		ug/L		122	70 - 133	1	25
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.2		ug/L		109	70 - 130	1	25
o-Xylene	ND		25.0	31.7		ug/L		127	70 - 133	1	20
Tert-amyl-methyl ether (TAME)	ND		25.0	27.2		ug/L		109	68 - 133	1	30
tert-Butyl alcohol (TBA)	ND		125	133		ug/L		106	70 - 130	3	25
Toluene	ND		25.0	28.9		ug/L		116	70 - 130	1	20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	106		80 - 120

### Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-125879/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 125879

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			08/20/13 20:45	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	98		80 - 120		08/20/13 20:45	1
4-Bromofluorobenzene (Surr)	95		80 - 120		08/20/13 20:45	1
Toluene-d8 (Surr)	104		80 - 120		08/20/13 20:45	1

TestAmerica Irvine

## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

### Method: 8260B/CA\_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 440-125879/6

Matrix: Water

Analysis Batch: 125879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	500	544		ug/L		109	55 - 130
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
Dibromofluoromethane (Surr)	97		80 - 120				
4-Bromofluorobenzene (Surr)	97		80 - 120				
Toluene-d8 (Surr)	109		80 - 120				

Lab Sample ID: 440-54184-A-1 MS

Matrix: Water

Analysis Batch: 125879

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	160		1730	1740		ug/L		92	50 - 145
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
Dibromofluoromethane (Surr)	97		80 - 120						
4-Bromofluorobenzene (Surr)	100		80 - 120						
Toluene-d8 (Surr)	105		80 - 120						

Lab Sample ID: 440-54184-A-1 MSD

Matrix: Water

Analysis Batch: 125879

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Volatile Fuel Hydrocarbons (C4-C12)	160		1730	1770		ug/L		94	50 - 145	2	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
Dibromofluoromethane (Surr)	96		80 - 120								
4-Bromofluorobenzene (Surr)	100		80 - 120								
Toluene-d8 (Surr)	106		80 - 120								

## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
 Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

### GC/MS VOA

#### Analysis Batch: 125878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-54183-1	S-1	Total/NA	Ground Water	8260B	
440-54183-2	S-2	Total/NA	Ground Water	8260B	
440-54183-3	S-3	Total/NA	Ground Water	8260B	
440-54184-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-54184-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 440-125878/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-125878/4	Method Blank	Total/NA	Water	8260B	

#### Analysis Batch: 125879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-54183-1	S-1	Total/NA	Ground Water	8260B/CA_LUFT MS	
440-54183-2	S-2	Total/NA	Ground Water	8260B/CA_LUFT MS	
440-54183-3	S-3	Total/NA	Ground Water	8260B/CA_LUFT MS	
440-54184-A-1 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-54184-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-125879/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-125879/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

## Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Certification Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 5755 Broadway, Oakland, CA

TestAmerica Job ID: 440-54183-1

### Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-28-14 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

\* Expired certification is currently pending renewal and is considered valid.



LAB (LOCATION)

- CALSCIENCE ( )
- SPL Houston ( )
- XENCO ( )
- TEST AMERICA (IRVINE)
- OTHER ( )



Shell Oil Products Chain Of Custody Record

Please Check Appropriate Box:

<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input checked="" type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER	

Print Bill To Contact Name: 240483 Peter Schaefer

INCIDENT # (ENV SERVICES) 9 8 9 9 5 7 5 6

PO # SAP #

DATE 8/8/13

PAGE 1 of 1

SAMPLING COMPANY: Blaine Tech Services

LOG CODE: BTSS

SITE ADDRESS: Street and City: 5755 Broadway, Oakland

State: CA

GLOBAL ID NO.: T0600101270

ADDRESS: 1680 Rogers Avenue, San Jose, CA

EDP DELIVERABLE TO (Name, Company, Other Location): Brenda Carter, CRA, Emeryville, CA

PHONE NO.: 510-420-3343

E-MAIL: ShellEDF@CRAWorld.com

CONSULTANT PROJECT NO.: 240483-05-12.05

PROJECT CONTACT (Hardcopy or PDF Report to): Lorin King

TELEPHONE: (310) 885-4455 x 108

FAX: (310) 637-5802

E-MAIL: lking@blainetech.com

SAMPLER NAME(S) (Print): William Wong

LAB USE ONLY: 440-54183

TURNAROUND TIME (CALENDAR DAYS):

STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS

RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT  UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

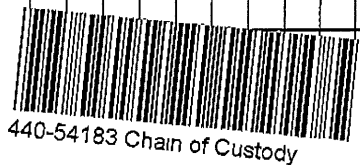
1) Please upload the "CRA EQUIS 4-file EDD" to the CRA Website (<http://cralabupload.craworld.com/equis/default.aspx>) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder 2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

Copy final report to Shell.Lab.Billing@craworld.com, ShellEDF@craworld.com, Shell-US-LabDataManagement@CRAworld.com, and pschaefer@CRAWorld.com

Email invoice to Shell.Lab.Billing@craworld.com

Matrix Codes - WG (groundwater), WS (surface water), WP (drinking water source), W (Trip or Tamp Blank)

LAB USE ONLY	SAMPLE ID					TIME	MATRIX	PRESERVATIVE					NO. OF CONT.	TPH-GRO, Purgeable (8260B)	TPH-DRO, Extractable (8016M)	BTEX (8260B)	BTEX + MTBE (8260B)	BTEX + MTBE + TBA (8260B)	BTEX + 6 OXYs (MTBE, TBA, DIPE, TAME, ETBE) (8260B)	VOCs Full list (8260B)	Single Compound:	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8016B)	TEMPERATURE ON RECEIPT	
	PROJECT NUMBER	DATE (MMDDYY)	SAMPLER INITIALS	WELL ID	HCL			HNO3	H2SO4	NONE	OTHER																
	WG	130808-WW	080813	WW	S-1																						
						1550	WG					3	X														
						1525						3	X														
						1425						3	X														



Relinquished by (Signature): [Signature]	Received by (Signature): [Signature]	Date: 8/8/13	Time: 1729
Relinquished by (Signature): [Signature]	Received by (Signature): [Signature]	Date: 8/9/13	Time: 1145
Relinquished by (Signature): [Signature]	Received by (Signature): [Signature]	Date: 8-9-13	Time: 1220

Rec'd by: Tim Soledad

5.4/5.2<sup>oc</sup>

8/10/13 0445

8/8/13

## Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-54183-1

Login Number: 54183

List Source: TestAmerica Irvine

List Number: 1

Creator: Escalante, Maria

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	WILLIAM W.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	