CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: October 22, 2008

REFERENCE NO.: 240898

PROJECT NAME: 510 East 14th Street (506-510 International Boulevard), Oakland

TO: Jerry Wickham
Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED
2:32 pm, Oct 23, 2008
Alameda County
Environmental Health

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☒ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☐ Other

QUANTITY	DESCRIPTION
	Groundwater Monitoring Report – Third Quarter 2008

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:

Copy to: Denis Brown
SF Data Room

Completed by: Peter Schaefer [Please Print]

Signed: Peter Schaefer

Filing: **Correspondence File**

Denis L. Brown
Shell Oil Products US
HSE - Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Former Shell Service Station
510 East 14th Street (506-510 International Boulevard)
Oakland, California
SAP Code 135695
Incident No. 97601734
ACHCSA Case No. RO0002853

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.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Project Manager

GROUNDWATER MONITORING REPORT – THIRD QUARTER 2008

SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD)
OAKLAND, CALIFORNIA

SAP CODE	135695
INCIDENT NO.	97601734
AGENCY NO.	RO0002853

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

Office: (510) 420-0700
Fax: (510) 420-9170

web: http:\\www.CRAworld.com

OCTOBER 22, 2008
REF. NO. 240898 (1)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF APPENDICES

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) in accordance with the quarterly reporting requirements of 23 CCR 2652d.

1.1 SITE INFORMATION

Site Address	510 East 14th Street (506-510 International Boulevard), Oakland
Site Use	Shell-branded Service Station
Shell Project Manager	Denis Brown
CRA Project Manager	Peter Schaefer
Lead Agency and Contact	ACHCSA, Jerry Wickham
Agency Case No.	RO0002853
Shell SAP Code	135695
Shell Incident No.	97601734

Date of most recent agency correspondence was November 1, 2006.

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) and a groundwater contour and chemical concentration map (Figure 2). Blaine's report, presenting the analytical data, is included in Appendix A.

2.2 CURRENT QUARTER'S FINDINGS

Groundwater Flow Direction	West-southwesterly
Hydraulic Gradient	0.03
Depth to Water	10.27 to 11.55 feet below top of well casing

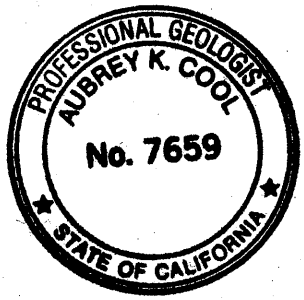
2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

Blaine will gauge and sample wells according to the established monitoring program for this site.

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

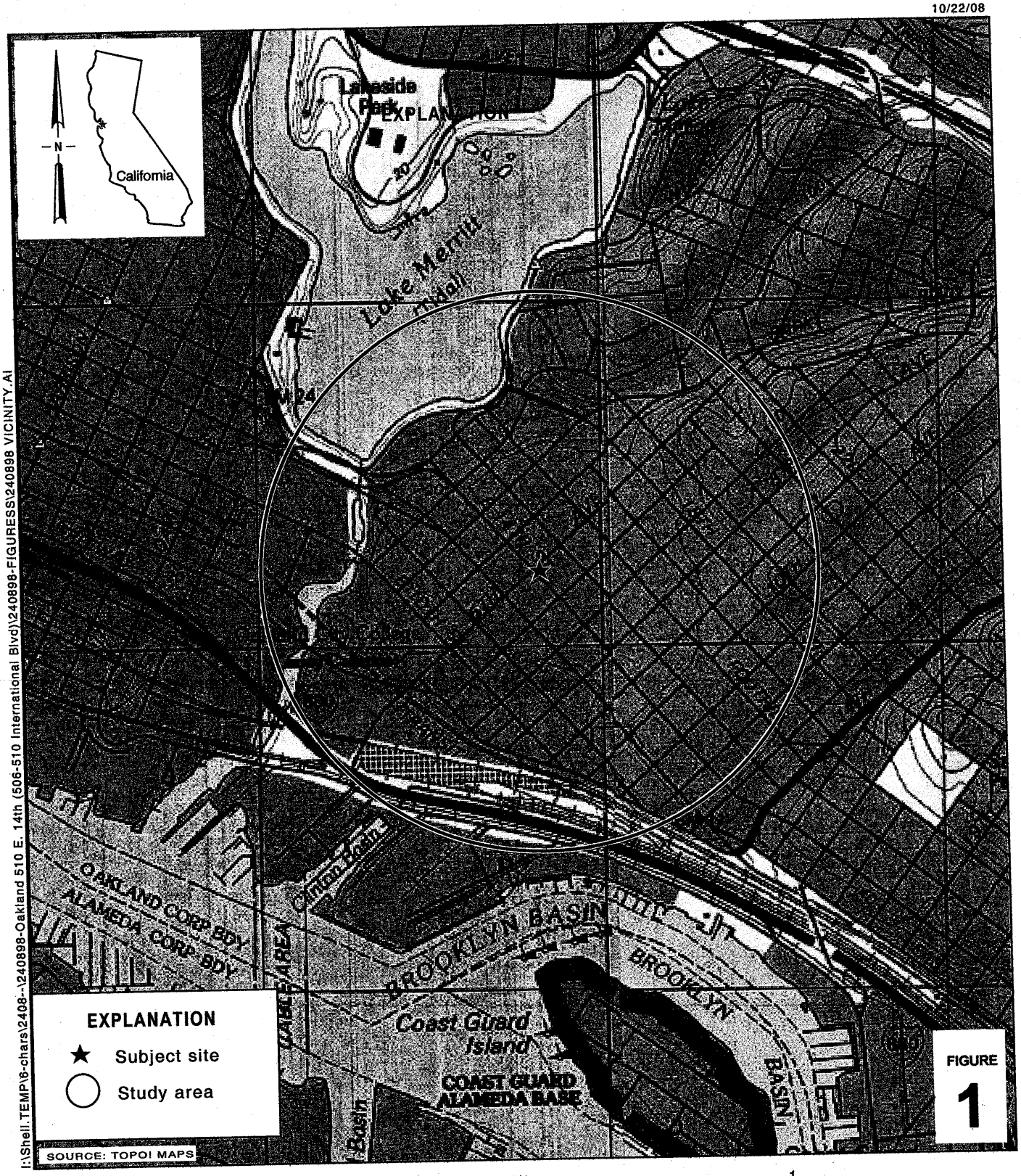
Peter Schaefer, CHG, CEG
Project Manager

Aubrey K. Cool, PG
Professional Geologist



FIGURES

10/22/08



I:\Shell.TEMP\6-chars\2408--\240898-Oakland 510 E. 14th (506-510 International Blvd)\240898-FIGURESS\240898 VICINITY.AI

FIGURE
1

Vicinity Map

Shell-branded Service Station
510 E. 14th Street (506-510 International Blvd.)
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

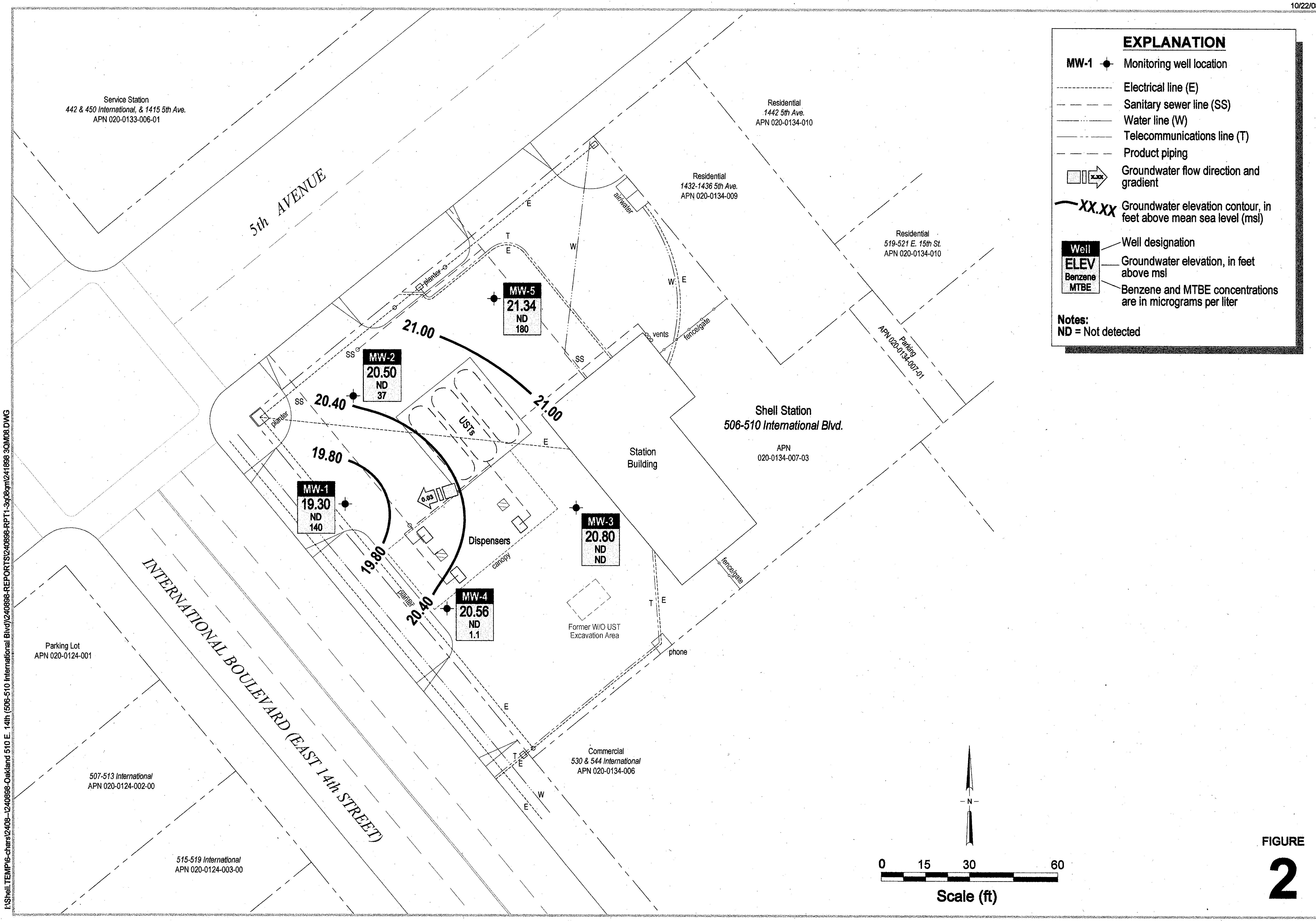

EXPLANATION
MW-1 Monitoring well location
Electrical line (E)
Sanitary sewer line (SS)
Water line (W)
Telecommunications line (T)
Product piping
Groundwater flow direction and gradient
XX.XX Groundwater elevation contour, in feet above mean sea level (msl)
Well
ELEV
Benzene
MTBE
Well designation
Groundwater elevation, in feet above msl
Benzene and MTBE concentrations are in micrograms per liter
Notes:
ND = Not detected
Service Station
442 & 450 International, & 1415 5th Ave.
APN 020-0133-006-01
5th AVENUE
Residential
1442 5th Ave.
APN 020-0134-010
Residential
1432-1436 5th Ave.
APN 020-0134-009
Residential
519-521 E. 15th St.
APN 020-0134-010
Parking
APN 020-0134-007-01
Shell Station
506-510 International Blvd.
APN
020-0134-007-03
Station Building
USTs
Dispensers
canopy
planter
air/water
vents
fence/gate
phone
Former W/O UST Excavation Area
MW-5
21.34
ND
180
MW-2
20.50
ND
37
MW-1
19.30
ND
140
MW-3
20.80
ND
ND
MW-4
20.56
ND
1.1
21.00
20.40
19.80
0.03
Parking Lot
APN 020-0124-001
INTERNATIONAL BOULEVARD (EAST 14th STREET)
507-513 International
APN 020-0124-002-00
515-519 International
APN 020-0124-003-00
Commercial
530 & 544 International
APN 020-0134-006
N
0 15 30 60
Scale (ft)
I:\Shell.TEMP\6-chars\2408--\240898-Oakland 510 E. 14th (506-510 International Blvd)\240898-REPORTS\240898-RPT1-3q08qm\241898 3QM08.DWG

FIGURE
2

Groundwater Contour and Chemical Concentration Map

August 5, 2008

CONESTOGA-ROVERS & ASSOCIATES

Shell-branded Service Station

510 East 14th Street (506-510 International Boulevard)

Oakland, California

APPENDIX A

BLAINE TECH SERVICES, INC. – GROUNDWATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

August 22, 2008

Denis Brown
Shell Oil Products US
20945 South Wilmington Avenue
Carson, CA 90810

Third Quarter 2008 Groundwater Monitoring at
Shell Service Station
510 E. 14th Street
Oakland, CA

Monitoring performed on August 5, 2008

Groundwater Monitoring Report **080805-IW-2**

This report covers the routine monitoring of groundwater wells at this Shell facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Mike Ninokata
Project Manager

MN/jb

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheets

cc: Anni Kreml
Conestoga-Rovers & Associates
19449 Riverside Dr., Suite 230
Sonoma, CA 95476

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.85	10.98	19.87
MW-1	08/29/2006	242	<0.500	<0.500	<0.500	<0.500	255	<0.500	<0.500	<0.500	54.1	<0.500	<0.500	30.85	10.98	19.87
MW-1	11/13/2006	140 a	<2.5	<2.5	<2.5	<2.5	300	<2.5	<2.5	<2.5	<100	NA	NA	30.85	11.05	19.80
MW-1	02/09/2007	100	<0.50	0.86	<0.50	<1.0	160	<2.0	<2.0	<2.0	95	NA	NA	30.85	9.61	21.24
MW-1	06/01/2007	<50 b	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	10.67	20.18
MW-1	08/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	210	<2.0	<2.0	<2.0	5.8 c	NA	NA	30.85	10.90	19.95
MW-1	11/30/2007	120 b,d	<1.0	<2.0	<2.0	<2.0	180	<4.0	<4.0	<4.0	<02	NA	NA	30.85	10.65	20.20
MW-1	01/24/2008	120 b,d	<0.50	<1.0	<1.0	<1.0	120	<2.0	<2.0	<2.0	<10	NA	NA	30.85	8.74	22.11
MW-1	05/20/2008	160	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	10.95	19.90
MW-1	**08/05/2008**	**150**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**140**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**30.85**	**11.55**	**19.30**
MW-2	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.96	9.91	21.05
MW-2	08/29/2006	2,130	1.18	0.660	1.67	0.960	206	<0.500	<0.500	<0.500	55.5	<0.500	<0.500	30.96	9.91	21.05
MW-2	11/13/2006	890	<0.50	1.4	4.1	4.5	37	<0.50	<0.50	<0.50	41	NA	NA	30.96	10.11	20.85
MW-2	02/09/2007	760	0.84	3.0	5.0	6.7	67	<2.0	<2.0	<2.0	210	NA	NA	30.96	8.73	22.23
MW-2	06/01/2007	3,300 b	0.48 c	0.98 c	12	3.89 c	39	<2.0	<2.0	<2.0	79	NA	NA	30.96	8.83	22.13
MW-2	08/15/2007	3,500 b	0.40 c	0.78 c	11	3.4	9.4	<2.0	<2.0	<2.0	58	NA	NA	30.96	9.81	21.15
MW-2	11/30/2007	1,000 b	<0.50	0.34 c	<1.0	1.1	17	<2.0	<2.0	<2.0	<10	NA	NA	30.96	9.93	21.03
MW-2	01/24/2008	800 b	<0.50	<1.0	2.5	1.8	15	<2.0	<2.0	<2.0	320	NA	NA	30.96	8.13	22.83
MW-2	05/20/2008	2,600	<0.50	<1.0	11	2.6	11	<2.0	<2.0	<2.0	120	NA	NA	30.96	9.70	21.26
MW-2	**08/05/2008**	**620**	**<0.50**	**<1.0**	**3.4**	**<1.0**	**37**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**30.96**	**10.46**	**20.50**
MW-3	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.02	10.00	22.02
MW-3	08/29/2006	<50.0	<0.500	<0.500	<0.500	<0.500	28.8	<0.500	<0.500	<0.500	11.9	<0.500	<0.500	32.02	10.00	22.02
MW-3	11/13/2006	<50	<0.50	<0.50	<0.50	<0.50	1.5	<0.50	<0.50	<0.50	<20	NA	NA	32.02	10.85	21.17
MW-3	02/09/2007	<50	<0.50	2.4	0.81	5.8	2.6	<2.0	<2.0	<2.0	<5.0	NA	NA	32.02	9.90	22.12
MW-3	06/01/2007	<50 b	<0.50	<1.0	<1.0	<1.0	0.98 c	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.72	22.30
MW-3	08/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	1.3	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.69	21.33

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	11/30/2007	<50 b	<0.50	<1.0	<1.0	<1.0	0.90 c	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.69	21.33
MW-3	01/24/2008	<50 b	<0.50	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.00	23.02
MW-3	05/20/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.70	21.32
MW-3	**08/05/2008**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**32.02**	**11.22**	**20.80**
MW-4	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.10	9.91	21.19
MW-4	08/29/2006	375	<0.500	<0.500	3.10	0.660	6.53	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	31.10	9.91	21.19
MW-4	11/13/2006	120	<0.50	<0.50	0.87	<0.50	4.6	<0.50	<0.50	<0.50	<20	NA	NA	31.10	10.05	21.05
MW-4	02/09/2007	130	<0.50	0.92	1.6	<1.0	5.2	<2.0	<2.0	<2.0	11	NA	NA	31.10	8.62	22.48
MW-4	06/01/2007	580 b	0.30 c	<1.0	5.5	0.57 c	3.4	<2.0	<2.0	<2.0	<10	NA	NA	31.10	6.94	24.16
MW-4	08/15/2007	430 b	<0.50	<1.0	0.48 c	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.01	22.09
MW-4	11/30/2007	87 b	<0.50	<1.0	0.25 c	<1.0	1.7	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.89	21.21
MW-4	01/24/2008	350 b,d	<0.50	<1.0	1.7	<1.0	2.5	<2.0	<2.0	<2.0	<10	NA	NA	31.10	7.52	23.58
MW-4	05/20/2008	200	<0.50	<1.0	<1.0	<1.0	1.8	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.85	21.25
MW-4	**08/05/2008**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**1.1**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**31.10**	**10.54**	**20.56**
MW-5	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.61	9.98	21.63
MW-5	08/29/2006	1,260	<0.500	<0.500	<0.500	<0.500	829	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	31.61	9.98	21.63
MW-5	11/13/2006	290 a	<5.0	<5.0	<5.0	<5.0	640	<5.0	<5.0	<5.0	<200	NA	NA	31.61	9.82	21.79
MW-5	02/09/2007	260	<0.50	1.1	<0.50	1.1	350	<2.0	<2.0	<2.0	270	NA	NA	31.61	9.41	22.20
MW-5	06/01/2007	<50 b	<1.0	<2.0	<2.0	<2.0	290	<4.0	<4.0	<4.0	<20	NA	NA	31.61	9.29	22.32
MW-5	08/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	580	<2.0	<2.0	<2.0	<10	NA	NA	31.61	10.01	21.60
MW-5	11/30/2007	210 b,d	<2.5	<5.0	<5.0	<5.0	340	<10	<10	<10	<50	NA	NA	31.61	9.52	22.09
MW-5	01/24/2008	82 b,d	<0.50	<1.0	<1.0	<1.0	230	<2.0	<2.0	<2.0	<10	NA	NA	31.61	8.95	22.66
MW-5	05/20/2008	160	<1.0	<2.0	<2.0	<2.0	140	<4.0	<4.0	<4.0	<20	NA	NA	31.61	9.90	21.71
MW-5	**08/05/2008**	**190**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**180**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**31.61**	**10.27**	**21.34**

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8260B.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.
MTBE = Methyl tertiary butyl ether
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
TBA = Tertiary butyl alcohol or tertiary butanol, analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane, analyzed by EPA Method 8260B
EDB = Ethylene Dibromide, analyzed by EPA Method 8260B
TOC = Top of Casing Elevation
GW = Groundwater
ug/L = Parts per billion
MSL = Mean sea level
ft. = Feet
<n = Below detection limit
NA = Not applicable

Notes:
a = The result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.
b = Analyzed by EPA Method 8015B (M).
c = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
d = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
Site surveyed September 7, 2006 by Virgil Chavez of Vallejo, CA.

Calscience
Environmental
Laboratories, Inc.

August 15, 2008

Michael Ninokata
Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject: **Calscience Work Order No.:** **08-08-0534**
Client Reference: **510 E. 14th Street, Oakland, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/7/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jessie Kim
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received:	08/07/08
Work Order No:	08-08-0534
Preparation:	EPA 5030B
Method:	LUFT GC/MS / EPA 8260B
Units:	ug/L

Project: 510 E. 14th Street, Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	08-08-0534-1-A	08/05/08 13:53	Aqueous	GC/MS LL	08/08/08	08/08/08 12:52	080808L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	150	50	1		Methyl-t-Butyl Ether (MTBE)	140	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	97	70-130			1,4-Bromofluorobenzene-TPPH	96	70-130		

MW-2	08-08-0534-2-A	08/05/08 13:32	Aqueous	GC/MS LL	08/08/08	08/08/08 16:53	080808L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	620	50	1		Methyl-t-Butyl Ether (MTBE)	37	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	3.4	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	97	70-130			1,4-Bromofluorobenzene-TPPH	97	70-130		

MW-3	08-08-0534-3-B	08/05/08 12:38	Aqueous	GC/MS LL	08/11/08	08/11/08 13:21	080811L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	ND	50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	94	70-130			1,4-Bromofluorobenzene-TPPH	94	70-130		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 08/07/08
Work Order No: 08-08-0534
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 510 E. 14th Street, Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	08-08-0534-4-A	08/05/08 14:41	Aqueous	GC/MS LL	08/08/08	08/08/08 17:42	080808L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	ND	50	1		Methyl-t-Butyl Ether (MTBE)	1.1	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	95	70-130			1,4-Bromofluorobenzene-TPPH	95	70-130		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	08-08-0534-5-A	08/05/08 14:36	Aqueous	GC/MS LL	08/08/08	08/08/08 18:06	080808L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	190	50	1		Methyl-t-Butyl Ether (MTBE)	180	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	94	70-130			1,4-Bromofluorobenzene-TPPH	94	70-130		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-715-732	N/A	Aqueous	GC/MS LL	08/08/08	08/08/08 12:27	080808L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	ND	50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,4-Bromofluorobenzene	95	70-130			1,4-Bromofluorobenzene-TPPH	95	70-130		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 08/07/08
Work Order No: 08-08-0534
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 510 E. 14th Street, Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-715-743**	**N/A**	**Aqueous**	**GC/MS LL**	**08/11/08**	**08/11/08 12:56**	**080811L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
TPPH	ND	50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	70-130		1,4-Bromofluorobenzene-TPPH	94	70-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 08/07/08
Work Order No: 08-08-0534
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project 510 E. 14th Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	GC/MS LL	08/08/08	08/08/08	080808S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	100	70-130	2	0-30	
Ethylbenzene	110	108	70-130	2	0-30	
Toluene	107	105	70-130	2	0-30	
p/m-Xylene	114	112	70-130	2	0-30	
o-Xylene	116	114	70-130	1	0-30	
Methyl-t-Butyl Ether (MTBE)	99	99	70-130	0	0-30	
Tert-Butyl Alcohol (TBA)	94	100	70-130	6	0-30	
Diisopropyl Ether (DIPE)	101	102	70-130	0	0-30	
Ethyl-t-Butyl Ether (ETBE)	100	102	70-130	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	99	101	70-130	2	0-30	
Ethanol	102	96	70-130	5	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 08/07/08
Work Order No: 08-08-0534
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project 510 E. 14th Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-3	Aqueous	GC/MS LL	08/11/08	08/11/08	080811S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	99	97	70-130	2	0-30	
Ethylbenzene	107	104	70-130	3	0-30	
Toluene	105	103	70-130	2	0-30	
p/m-Xylene	112	108	70-130	4	0-30	
o-Xylene	113	110	70-130	3	0-30	
Methyl-t-Butyl Ether (MTBE)	99	100	70-130	1	0-30	
Tert-Butyl Alcohol (TBA)	82	87	70-130	6	0-30	
Diisopropyl Ether (DIPE)	99	99	70-130	1	0-30	
Ethyl-t-Butyl Ether (ETBE)	97	98	70-130	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	95	97	70-130	2	0-30	
Ethanol	93	94	70-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: N/A
Work Order No: 08-08-0534
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project: 510 E. 14th Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-715-732	Aqueous	GC/MS LL	08/08/08	08/08/08	080808L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPPH	114	109	65-135	5	0-30	
Benzene	113	108	70-130	5	0-30	
Ethylbenzene	122	116	70-130	5	0-30	
Toluene	119	112	70-130	6	0-30	
p/m-Xylene	127	121	70-130	5	0-30	
o-Xylene	127	119	70-130	6	0-30	
Methyl-t-Butyl Ether (MTBE)	107	104	70-130	2	0-30	
Tert-Butyl Alcohol (TBA)	113	120	70-130	6	0-30	
Diisopropyl Ether (DIPE)	107	103	70-130	4	0-30	
Ethyl-t-Butyl Ether (ETBE)	104	100	70-130	4	0-30	
Tert-Amyl-Methyl Ether (TAME)	102	99	70-130	3	0-30	
Ethanol	116	132	70-130	13	0-30	X

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: N/A
Work Order No: 08-08-0534
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project: 510 E. 14th Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-715-743	Aqueous	GC/MS LL	08/11/08	08/11/08	080811L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPPH	110	111	65-135	1	0-30	
Benzene	115	116	70-130	1	0-30	
Ethylbenzene	123	124	70-130	1	0-30	
Toluene	120	121	70-130	1	0-30	
p/m-Xylene	129	129	70-130	0	0-30	
o-Xylene	126	128	70-130	1	0-30	
Methyl-t-Butyl Ether (MTBE)	105	106	70-130	0	0-30	
Tert-Butyl Alcohol (TBA)	108	110	70-130	2	0-30	
Diisopropyl Ether (DIPE)	108	107	70-130	0	0-30	
Ethyl-t-Butyl Ether (ETBE)	99	102	70-130	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	100	100	70-130	0	0-30	
Ethanol	128	112	70-130	13	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 08-08-0534

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	A Marginal Exceedance (ME) is defined as a LCS percent recovery beyond the normal 3 standard deviation Control Limits but still within the marginal exceedance limits (set at 4 standard deviations from the mean)
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [x] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [ ] OTHER (_____)

Please Check Appropriate Box:
- [x] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [ ] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER _____

Print Bill To Contact Name: Denis Brown

INCIDENT # (ENV SERVICES): 9 7 6 0 1 7 3 4 — [ ] CHECK IF NO INCIDENT # APPLIES

DATE: 8/5/08

PAGE: 1 of 1

PO # / SAP #

SAMPLING COMPANY: Blaine Tech Services

LOG CODE: BTSS

SITE ADDRESS: Street and City: 510 E. 14th Street, Oakland

State: CA

GLOBAL ID NO: T0600112421

ADDRESS: 1680 Rogers Ave, San Jose, CA 95112

EDF DELIVERABLE TO (Name, Company, Office Location): Anni Kremi, CRA, Emeryville

PHONE NO: (510) 420-3335

E-MAIL: Shelledf@craworld.com

CONSULTANT PROJECT NO: BTS # 080805-1W-2

PROJECT CONTACT (Hardcopy or PDF Report to): Michael Ninokata

TELEPHONE: (408)573-0555

FAX: (408)573-7771

E-MAIL: mninokata@blainetech.com

SAMPLER NAME(S) (Print): IAN WILLIAMS, WILLIAM WONG

LAB USE ONLY: 08-0534

TURNAROUND TIME (CALENDAR DAYS):
- [x] 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 :

Run TPH-d w/Silica Gel Clean Up

- [ ] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [x] RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Container PID Readings or Laboratory Notes
1	MW-1	8/5/08	1353	W	X					3	X		X	X										
2	MW-2		1332		X					3	X		X	X										
3	MW-3		1238		X					3	X		X	X										
4	MW-4		1441		X					3	X		X	X										
5	MW-5		1436		X					3	X		X	X										

TEMPERATURE ON RECEI... C°

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	(SAMPLE CUSTODIAN)	8/5/08	1622
(Sample Custodian)	CFL	8-6-08	1305
TO 8-6-08 1650 1730		8-7-08	1030

510130761

05/2/06 Revision

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 08 - 08 - 0534

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Blaine Tech DATE: 8/7/08

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature (For Air & Filter Only).
___ ___ . ___ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

3.3 °C Temperature blank.
___ ___ . ___ °C IR Thermometer.
_____ Ambient temperature (For Air & Filter Only).

Initial: JP

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Present: ✓

Initial: JP

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.	✓		
Tedlar bag(s) free of condensation			✓

Initial: JP

COMMENTS:

WELL GAUGING DATA

Project # 080805-1W-2 Date 8/5/08 Client SHELL

Site 510 E. 14TH STREET, OAKLAND

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 TOC	Notes
MW-1	1214	4					11.55	20.70		
MW-2	1210	4					10.46	24.00		
MW-3	1223	4					11.22	29.20		
MW-4	1218	4					10.54	21.58		
MW-5	1205	4					10.27	21.60		

SHELL WELL MONITORING DATA SHEET

BTS #: 080805-1W-2	Site: 510 E. 14th STREET, OAKLAND
Sampler: 1W	Date: 8/5/08
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 20.70	Depth to Water (DTW): 11.55
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.38	

Purge Method:
- Bailer
- Disposable Bailer
- Positive Air Displacement
- X Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:
- X Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

6.0 (Gals.) X 3 = 18.0 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^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1259	70.1	6.96	424	227	6.0	
1300	WELL	DEWATERED		@ 7.0	gal 7.0	DTW = 18.26
1353	69.5	7.04	488	128	GRAB	

Did well dewater? (Yes) No Gallons actually evacuated: 7.0

Sampling Date: 8/5/08 Sampling Time: 1353 Depth to Water: 12.25

Sample I.D.: MW-1 Laboratory: STL Other CAL SCIENCE

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 080805-1W-2	Site: 510 E. 14th STREET, OAKLAND
Sampler: 1W	Date: 8/5/08
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 24.00	Depth to Water (DTW): 10.46
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.17	

Purge Method:
- Bailer
- Disposable Bailer
- Positive Air Displacement
- X Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:
- X Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

8.8 (Gals.) X 3 = 26.4 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1320	69.3	7.01	889	735	8.8	
1321	69.7	6.95	841	129	17.6	
1323	69.8	6.93	834	96	26.4	DTW = 11.91

Did well dewater? Yes (No) Gallons actually evacuated: 26.4

Sampling Date: 8/5/08 Sampling Time: 1332 Depth to Water: 11.91

Sample I.D.: MW-2 Laboratory: STL Other CAL SCIENCE

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 080805-1W-2	Site: 510 E. 14th STREET, OAKLAND
Sampler: 1W	Date: 8/5/08
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 29.20	Depth to Water (DTW): 11.22
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.81	

Purge Method:
- Bailer
- Disposable Bailer
- Positive Air Displacement
- X Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:
- X Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

11.7 (Gals.) X 3 = 35.1 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1228	65.6	7.16	676	193	11.7	
1230	66.0	6.89	692	57	23.4	
1232	66.2	6.89	701	28	35.1	DTW = 11.90

Did well dewater? Yes (No) Gallons actually evacuated: 35.1

Sampling Date: 8/5/08 Sampling Time: 1238 Depth to Water: 11.90

Sample I.D.: MW-3 Laboratory: STL Other CAL SCIENCE

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 080805-1W-2	Site: 510 E. 14th STREET, OAKLAND
Sampler: 1W	Date: 8/5/08
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 21.58	Depth to Water (DTW): 10.54
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.75	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; X Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: X Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

7.2 (Gals.) X 3 = 21.6 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1245	69.4	6.84	360	134	7.2	
1246	WELL	DEWATERED	@ 10 gal		10	DTW = 19.43
1441	68.7	6.74	373	208	GRAB	

Did well dewater? (Yes) No Gallons actually evacuated: 10

Sampling Date: 8/5/08 Sampling Time: 1441 Depth to Water: 12.72 WAITED

Sample I.D.: MW-4 Laboratory: STL Other CAL SCIENCE

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 080805-1W-2	Site: 510 E. 14th STREET, OAKLAND
Sampler: WW	Date: 8/5/08
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 21.60	Depth to Water (DTW): 10.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.54	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; X Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: X Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

7.4 (Gals.) X 3 = 22.2 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or ~~uS~~)	Turbidity (NTUs)	Gals. Removed	Observations
15 1326	72.8	10.9	1694	42	7.4	
30 ~~1327~~	WELL DEWATERED @				7.5 GALLONS	
45 ~~1328~~				~~93~~ TW		
1436	69.9	9.55	782	93	GRAB	
						(MW)

Did well dewater? (Yes) No Gallons actually evacuated: ~~7.4~~ 7.5

Sampling Date: 08/05/08 Sampling Time: 1436 Depth to Water:

Sample I.D.: MW-5 Laboratory: STL Other CAL SCIENCE

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

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 WELLHEAD INSPECTION FORM

(FOR SAMPLE TECHNICIAN)

Site Address 510 E. 14th STREET, OAKLAND Date 8/5/08

Job Number 080805-1W-2 Technician 1W Page 1 of 1

Well ID	Well Inspected - No Corrective Action Required	Well Box Meets Compliance Requirements *See Below	Water Bailed From Wellbox	Cap Replaced	Lock Replaced	Well Not Inspected (explain in notes)	New Deficiency Identified	Previously Identified Deficiency Persists	Notes
MW-1	X	X							
MW-2	X	X							
MW-3	X	X							
MW-4	X	X							
MW-5	X	X							

*Well box must meet all three criteria to be compliant: 1) WELL IS SECURABLE BY DESIGN (12"or less) 2) WELL IS MARKED WITH THE WORDS "MONITORING WELL" (12"or less) 3) WELL TAG IS PRESENT, SECURE, AND CORRECT

Notes: