

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

Some info of TPH/BTEX.  
Continue w/ QMR.

Re: **First Quarter 2001 Monitoring Report**  
Former Shell Service Station  
2160 Otis Drive  
Alameda, California  
Incident #98995140  
Cambria Project #243-0627-002



Dear Mr. Chan:

On behalf of Equiva Services LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

**FIRST QUARTER 2001 ACTIVITIES**

**Monitoring Well Installation:** On November 2, 2000, Cambria installed groundwater monitoring well MW-3. A monitoring well installation report was submitted to the Alameda County Health Care Services Agency on April 10, 2001.

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California developed, gauged, and sampled the new site well MW-3, and compiled the analytical data. Cambria prepared a benzene and MTBE concentration map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**ANTICIPATED SECOND QUARTER 2001 ACTIVITIES**

**Groundwater Monitoring:** Blaine will gauge and sample site well MW-3, and tabulate the data. Cambria will prepare a monitoring report.

Oakland, CA  
San Ramon, CA  
Sonoma, CA  
Portland, OR

**Cambria  
Environmental  
Technology, Inc.**


1144 65th Street  
Suite B  
Oakland, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170


**CLOSING**

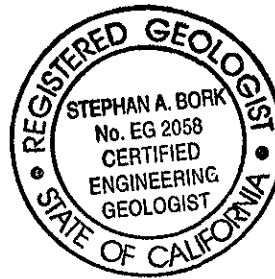
We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



  
Jacquelyn L. Jones  
Project Geologist

  
Stephan Bork, C.E.G., C. HG.  
Associate Hydrogeologist

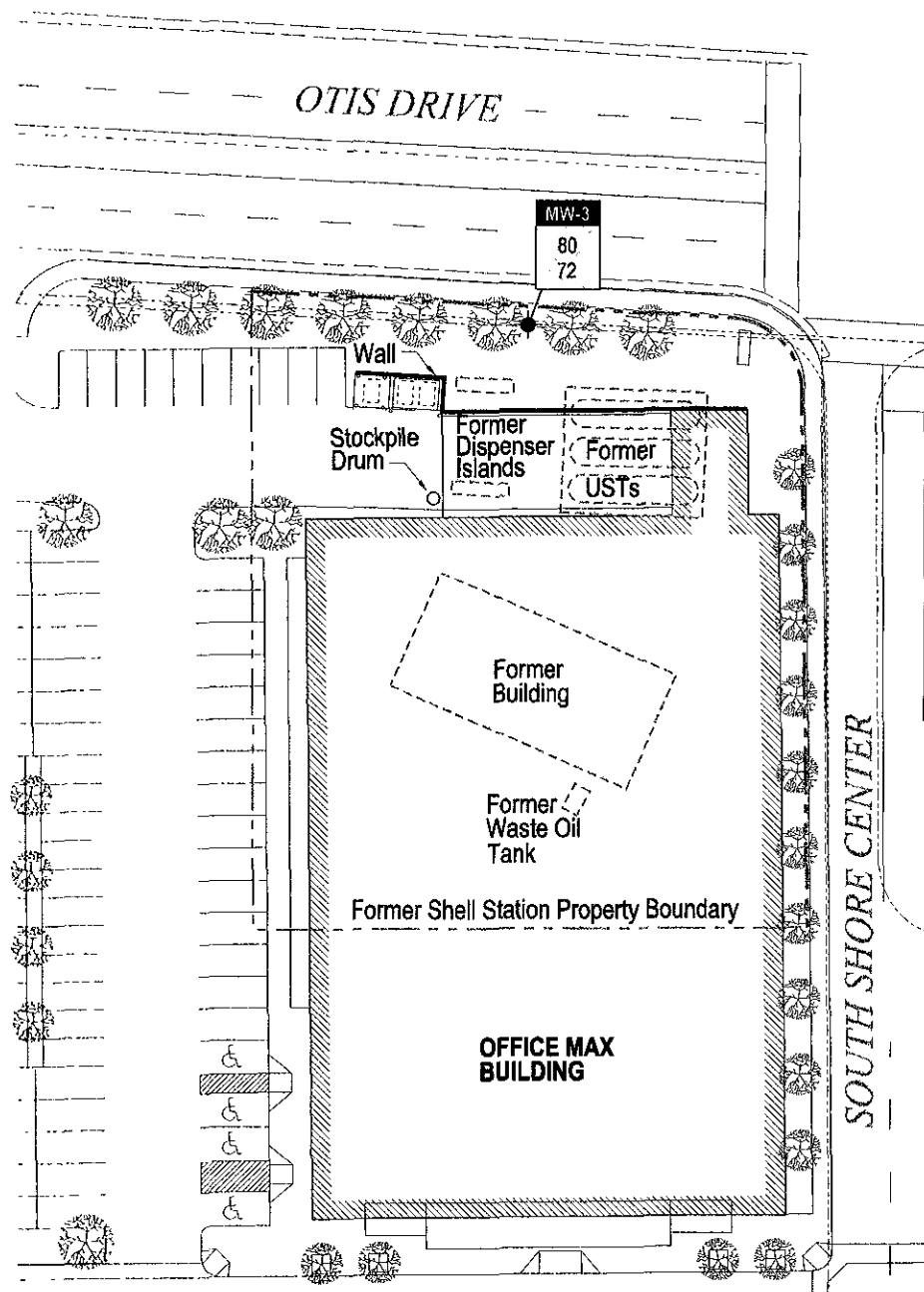


Figures: 1 - Benzene and MTBE Concentration Map

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes


cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91510-7869  
Harsch Investment Group, 523 West Plaza, Alameda, California 94501


g:\alameda2160otis\qml\q01qm.doc



  
 Approximate Groundwater  
 Gradient Direction

**EXPLANATION**

MW-3  Monitoring well location

 Well designation  
 Benz. MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260

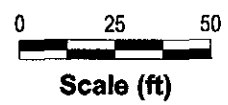


FIGURE  
**1**

G:\ALAMEDA 2160 OTIS\FIGURES\TQM01.MP DWG

**Former Shell Service Station**  
 2160 Otis Street  
 Alameda, California  
 Incident #98995140



C A M B R I A

**Benzene and MTBE  
 Concentration Map**

March 23, 2001

**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**  
**and Field Notes**

**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE  
CONTRACTOR'S LICENSE #746684  
www.blainetech.com

April 18, 2001

Karen Petryna  
Equiva Services LLC  
P.O. Box 7869  
Burbank, CA 91510-7869

First Quarter 2001 Groundwater Monitoring at  
Former Shell Service Station  
2160 Otis Drive  
Alameda, CA

Monitoring performed on March 21 and 23, 2001

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Groundwater Monitoring Report **010323-X-6**

This report covers the routine monitoring of groundwater wells at this Shell-branded 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. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read 'Deidre Kerwin', with a long horizontal flourish extending to the right.

Deidre Kerwin  
Operations Manager

DK/jt

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

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
1144 65<sup>th</sup> Street, Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**2160 Otis Street**  
**Alameda, CA**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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MW-3	03/21/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.23	NA
MW-3	03/23/2001	1,000	1,100	80	16	7.9	72	NA	72	NA	5.21	NA

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8260B

TEPH = Total extractable hydrocarbons as diesel by modified EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample



Report Number : 19745

Date : 4/10/2001

Nick Sudano  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 1 Water Sample  
Project Name : 2160 Otis Drive, Alameda  
Project Number : 010323-X6  
P.O. Number : Incident #98995140

Dear Mr. Sudano,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large initial "J".

Joel Kiff





Report Number : 19745

Date : 4/10/2001

Project Name : 2160 Otis Drive, Alameda

Project Number : 010323-X6

Sample : MW-3

Matrix : Water

Lab Number : 19745-01

Sample Date :3/23/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>80</b>	0.50	ug/L	EPA 8260B	4/2/2001
<b>Toluene</b>	<b>16</b>	0.50	ug/L	EPA 8260B	4/2/2001
<b>Ethylbenzene</b>	<b>7.9</b>	0.50	ug/L	EPA 8260B	4/2/2001
<b>Total Xylenes</b>	<b>72</b>	0.50	ug/L	EPA 8260B	4/2/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>72</b>	0.50	ug/L	EPA 8260B	4/2/2001
<b>TPH as Gasoline</b>	<b>1000</b>	50	ug/L	EPA 8260B	4/2/2001
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	4/2/2001
4-Bromofluorobenzene (Surr)	114		% Recovery	EPA 8260B	4/2/2001
<b>TPH as Diesel</b>	<b>1100</b>	50	ug/L	M EPA 8015	3/31/2001

Approved By:  Joel Kiff

Report Number : 19745


Date : 4/10/2001

Project Name : 2160 Otis Drive, Alameda

Project Number : 010323-X6

Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	3/30/2001

Approved By:  Joel Kiff

Report Number : 19745

Date : 4/10/2001

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

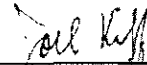
Project Name : **2160 Otis Drive, Alameda**

Project Number : **010323-X6**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Spike Recovery Data														
TPH as Diesel	Blank	<50	1000	1000	1070	802	ug/L	M EPA 8015	3/30/2001	107	80.2	28.7	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:   
Joel Kiff

Report Number : 19745

Date : 4/10/2001

Project Name : 2160 Otis Drive, Alameda

Project Number : 010323-X6

Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	4/1/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	4/1/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	4/1/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	4/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	4/1/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	4/1/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	4/1/2001
4-Bromofluorobenzene (Surr)	93.8		% Recovery	EPA 8260B	4/1/2001

Approved By:  Joel Kiff

Report Number : 19745

Date : 4/10/2001

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **2160 Otis Drive, Alameda**

Project Number : **010323-X6**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Spike Recovery Data														
Benzene	19753-02	<0.50	22.9	23.2	21.8	21.1	ug/L	EPA 8260B	4/1/2001	94.9	91.3	3.93	70-130	25
Toluene	19753-02	<0.50	22.9	23.2	21.6	21.5	ug/L	EPA 8260B	4/1/2001	94.1	92.9	1.33	70-130	25
Tert-Butanol	19753-02	<5.0	22.9	23.2	17.9	24.9	ug/L	EPA 8260B	4/1/2001	78.2	107	31.5	70-130	25
Methyl-t-Butyl Ether	19753-02	<0.50	22.9	23.2	18.0	25.5	ug/L	EPA 8260B	4/1/2001	78.4	110	33.7	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 19745

Date : 4/10/2001

QC Report : Laboratory Control Sample (LCS)

Project Name : 2160 Otis Drive, Alameda

Project Number : 010323-X6

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	19.3	ug/L	EPA 8260B	3/31/2001	96.1	70-130
Toluene	19.3	ug/L	EPA 8260B	3/31/2001	98.0	70-130
Tert-Butanol	96.3	ug/L	EPA 8260B	3/31/2001	105	70-130
Methyl-t-Butyl Ether	19.3	ug/L	EPA 8260B	3/31/2001	108	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:   
Joel Kiff







## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010323-X6</u>	Site: <u>98995140</u>
Sampler: <u>HOYT</u>	Date: <u>3/23/01</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>17.90</u>	Depth to Water: <u>5.21</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: <u>(Bailer)</u> Bailer Disposable Bailer Middleburg Electric Submersible	Sampling Method: <u>(Bailer)</u> Disposable Bailer Extraction Port Dedicated Tubing Other _____
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$$2.0 \text{ (Gals) } \times 3 = 6.0 \text{ Gals}$$
 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.	Turbidity	Gals. Removed	Observations
1541	60.3	7.09	2383	7200	2	
1543	60.2	7.14	1905	7200	4	
1545	58.8	7.26	2027	7200	6	

Did well dewater? Yes  No  Gallons actually evacuated: 6

Sampling Time: 1548 Sampling Date: 3/23/01

Sample I.D.: MW-3 Laboratory: Sequoia Columbia Other KIFF

Analyzed for: (PH-G BTEX MTBE TPH-D) Other: MTBE by 8260

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
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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# WELL DEVELOPMENT DATA SHEET

Project #: <u>010321-A1</u>	Client: <u>Equiva</u>
Developer: <u>A</u>	Date Developed: <u>3/21/01</u>
Well I.D. <u>MW-3</u>	Well Diameter: (circle one) <u>2</u> 3 4 6
Total Well Depth:	Depth to Water:
Before <u>16.18</u> After <u>18.19</u>	Before <u>5.23</u> After <u>11.67</u>
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF) $(12 \times (d^2/4) \times \pi) / 231$ where 12 = in / foot d = diameter (in) $\pi = 3.1416$ 231 = in 3/gal	Well dia	VCF
	2" =	0.16
	3" =	0.37
	4" =	0.65
	6" =	1.47
	10" =	4.08
	12" =	6.87

**MAY 22 2001**

<u>1.7</u>	X	<u>10</u>	=	<u>17</u>
1 Case Volume		Specified Volumes		gallons

Purging Device:    Bailer        Electric Submersible      
                          Middleburg        Suction Pump   

Type of Installed Pump \_\_\_\_\_  
 Other equipment used    2" SWAB Swabbed six 10 min

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	DTW	NOTATIONS:
909	59.6	6.6	2177	>200	2	8.49	odor heavy: it ↓ getting thick ↓
906	59.0	7.0	2968	>200	4	9.78	
908	57.9	7.1	1974	>200	6	10.59	
910	58.6	7.1	2220	>200	8	10.98	
913	59.3	7.1	2905	>200	10	11.37	
915	59.3	7.2	3557	>200	12	11.78	
918	58.9	7.3	2840	>200	14	11.57	
920	59.0	7.3	3992	>200	15	11.63	
924	59.3	7.1	4856	>200	16	11.72	
926	59.5	7.1	4620	>200	17	11.94	

Did Well Dewater? <u>NO</u> If yes, note above.	Gallons Actually Evacuated:
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