

C A M B R I A

3646

February 15, 2000

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

Re: **Third Quarter 1999 Monitoring Report**
Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752
Cambria Project #242-0414-002



Dear Mr. Chan:

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

THIRD QUARTER 1999 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California collected dissolved oxygen (DO) measurements, gauged water levels, and sampled the monitoring wells using the non-purging method. Blaine calculated ground water elevations and compiled the analytical data. Cambria prepared a ground water elevation contour map (Figure 1). The Blaine report, presenting the laboratory report and including supporting field documents, is included as Attachment A.

Interim Remedial Action: Due to the elevated concentrations of MTBE in site wells, Cambria has initiated weekly high vacuum ground water extraction from the four tank back fill wells (A through D), and monitoring wells MW-1 and MW-3. Approximately 30,651 gallons of ground water has been extracted from site wells since purging began on July 29, 1999. Weekly purge data and hydrocarbon mass removal calculations are presented in Tables 1 and Table 2, respectively. Due to low hydrocarbon mass removal from weekly vacuum truck operations, Cambria reduced weekly purging to wells MW-1 and MW-3 only.

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

**Cambria
Environmental
Technology, Inc.**

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

ANTICIPATED FOURTH QUARTER 1999 ACTIVITIES

Ground Water Monitoring: Blaine will collect DO measurements, gauge water levels, sample the monitoring wells using the non-purging method, and tabulate the data. Cambria will prepare a monitoring report.

Interim Remedial Action: As a means of source removal and contaminant migration control, Cambria will continue to coordinate weekly purging of wells MW-1 and MW-3.



CLOSING

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,

Cambria Environmental Technology, Inc

Darryk Ataide, REA I
Project Manager

Ailsa S. Le May, R.G.
Senior Geologist

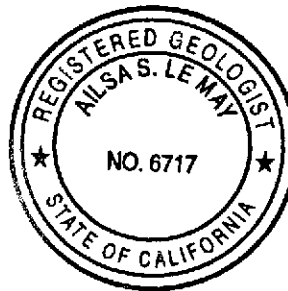


Figure: 1 - Ground Water Elevation Contour Map

Table: 1 - Purge Data

2 - Hydrocarbon Mass Removal Data

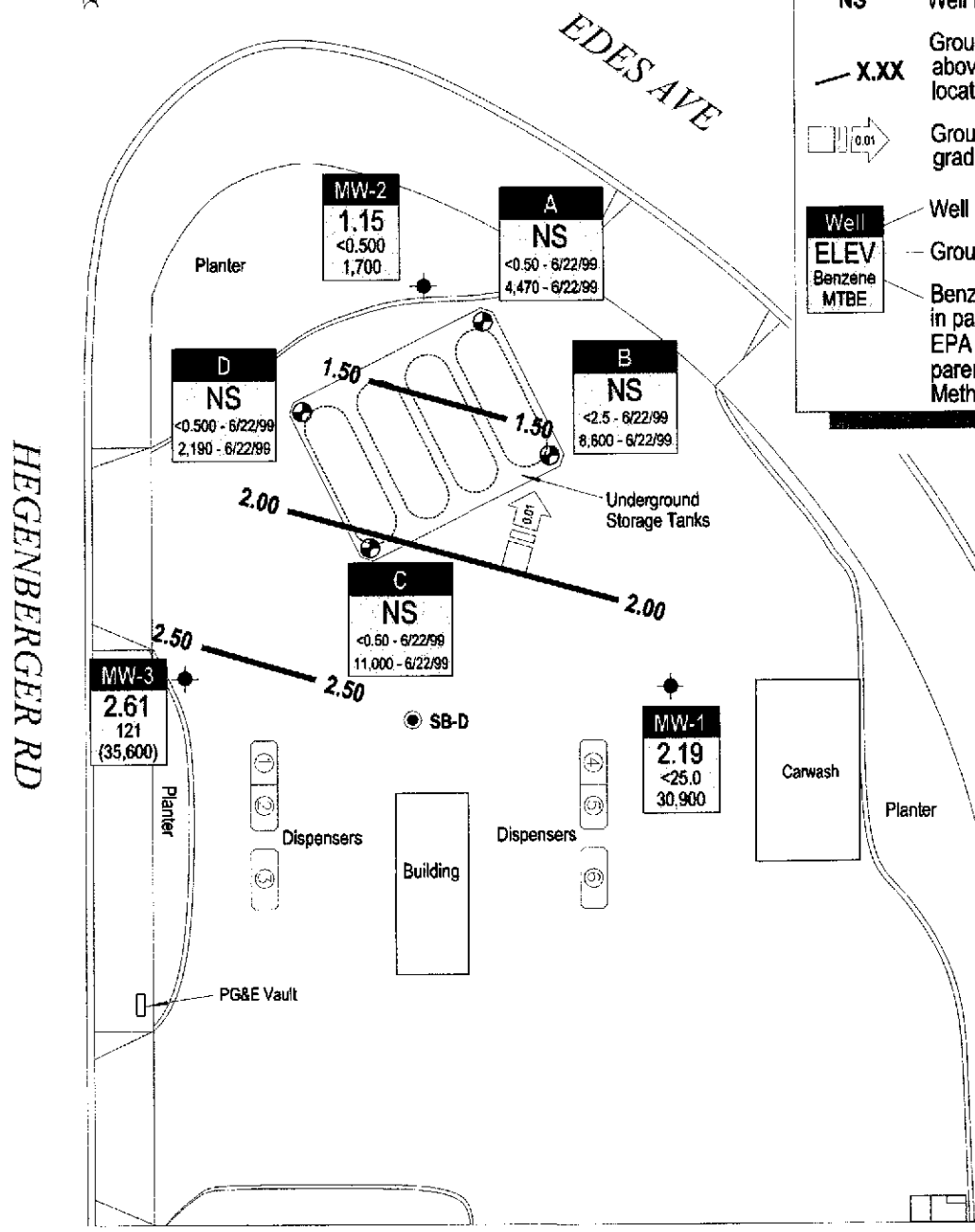
Attachment: A - Blaine Ground Water Monitoring Report and Field Notes

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91501-7869



EXPLANATION

- MW-1 Ground water monitoring well location
- SB-D Soil boring location
- A Tank backfill well location
- NS Well not surveyed
- X.XX Groundwater elevation contour, feet above mean sea level, approximately located; dashed where inferred
- Groundwater flow direction and gradient
- Well designation
- ELEV Ground water elevation (msl)
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8020; MTBE results in parentheses are analyzed by EPA Method 8260



Just there on site map

HEGENBERGER RD

EDES AVE



FIGURE 1

Base Map by R.H. Lee & Assoc.

Shell-branded Service Station
 540 Hegenberger Road
 Oakland, California
 Incident #98995752



C A M B R I A

Ground Water Elevation Contour Map

September 30, 1999

C:\OAK540\FIGURES\SCHEM.MP.DWG

CAMBRIA

Table 1. Purge Data - Shell-branded Service Station - Incident #98995752 - 540 Hegenberger Road, Oakland, California

Well ID	Date	Volume (gals)	Total per well (gals)
MW-1	07/29/99	150	100
	08/04/99	150	250
	08/11/99	15	265
	08/20/99	44	309
	08/30/99	218	527
	9/03/99*	125	652
	9/10/99*	75	727
	09/23/99	175	902
	09/29/99	50	952
MW-3	07/29/99	100	100
	08/04/99	100	200
	08/11/99	45	245
	08/20/99	55	300
	08/30/99	77	377
	9/03/99*	50	427
	9/10/99*	40	467
	09/23/99	10	477
	09/29/99	50	527
BW-A	07/29/99	400	100
	08/04/99	2,000	2,100
	08/11/99	2,437	4,537
	08/20/99	1,213	5,750
	08/30/99	2,673	8,423
	9/03/99*	325	8,748
	9/10/99*	425	9,173
	09/23/99	615	9,788
	09/29/99	800	10,588
BW-B	07/29/99	1,000	100
	08/04/99	800	900
	08/11/99	2,213	3,113
	08/20/99	1,213	4,326
	08/30/99	877	5,203
	9/03/99*	325	5,528
	9/10/99*	425	5,953
	09/23/99	750	6,703
	09/29/99	600	7,303
BW-C	07/29/99	300	100
	08/04/99	700	800
	08/11/99	0	800
	08/20/99	1,013	1,813
	08/30/99	375	2,188
	9/03/99*	325	2,513

BW-D ? (over)

Table 1. Purge Data - Shell-branded Service Station - Incident #98995752 - 540 Hegenberger Road, Oakland, California

Well ID	Date	Volume (gals)	Total per well (gals)
	9/10/99*	425	2,938
	09/23/99	750	3,688
	09/29/99	700	4,388
BW-D	07/29/99	1,500	1,500
	08/04/99	250	1,750
	08/11/99	0	1,750
	08/20/99	1,213	2,963
	08/30/99	280	3,243
	9/03/99*	325	3,568
	9/10/99*	425	3,993
	09/23/99	750	4,743
	09/29/99	700	5,443
Total to date			30,651

Abbreviations and Notes:

gals = Gallons

All purging performed by Ecology Control Industries, Inc. of Richmond, California

Table 2: Hydrocarbon Mass Removal Calculations

Shell-branded Service Station, Incident #98995752, 540 Hegenberger Rd. Oakland

Mass Removal Calculations

*should be same dates
wrong date*

Date	Well Number	Volume Groundwater Extracted (gallons)
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Sample Date	TPPH (ug/L)	TPPH Removed (pounds)	Benzene (ug/L)	Benzene Removed (pounds)	MTBE (ug/L)	MTBE Removed (pounds)
-------------	-------------	-----------------------	----------------	--------------------------	-------------	-----------------------

7/29/99	BW-A	400
7/29/99	BW-B	1,000
7/29/99	BW-C	300
7/29/99	BW-D	1,500
7/29/99	MW-1	150
7/29/99	MW-3	100
8/4/99	BW-A	2,000
8/4/99	BW-B	800
8/4/99	BW-C	700
8/4/99	BW-D	250
8/4/99	MW-1	150
8/4/99	MW-3	100
8/11/99	BW-A	2,437
8/11/99	BW-B	2,213
8/11/99	BW-C	0
8/11/99	BW-D	0
8/11/99	MW-1	15
8/11/99	MW-3	45
8/20/99	BW-A	1,213
8/20/99	BW-B	1,213
8/20/99	BW-C	1,013
8/20/99	BW-D	1,213
8/20/99	MW-1	44
8/20/99	MW-3	55
8/30/99	BW-A	2,673
8/30/99	BW-B	877
8/30/99	BW-C	375
8/30/99	BW-D	280
8/30/99	MW-1	218
8/30/99	MW-3	77
9/3/99	BW-A	325
9/3/99*	BW-B	325
9/3/99*	BW-C	325
9/3/99*	BW-D	325
9/3/99*	MW-1	125
9/3/99*	MW-3	50
9/10/99*	BW-A	425
9/10/99*	BW-B	425
9/10/99*	BW-C	425
9/10/99*	BW-D	425
9/10/99*	MW-1	75
9/10/99*	MW-3	40

6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00001	653,000	0.001
6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00001	653,000	0.001
6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	653,000	0.000
6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	653,000	0.000
6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	653,000	0.000
6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	653,000	0.000

Date	Well Number	Volume Groundwater Extracted (gallons)
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9/23/99	BW-A	615
9/23/99	BW-B	750
9/23/99	BW-C	750
9/23/99	BW-D	750
9/23/99	MW-1	175
9/23/99	MW-3	10
9/29/99	BW-A	800
9/29/99	BW-B	600
9/29/99	BW-C	700
9/29/99	BW-D	700
9/29/99	MW-1	50
9/29/99	MW-3	50
Total Gallons Extracted:		30,651

Sample Date	TPPH (ug/L)	TPPH Removed (pounds)	Benzene (ug/L)	Benzene Removed (pounds)	MTBE (ug/L)	MTBE Removed (pounds)
-------------	-------------	-----------------------	----------------	--------------------------	-------------	-----------------------

6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	653,000	0.000
6/22/99	318	0.0000	0	0.00000	4,470	0.000
6/22/99	125	0.0000	1	0.00000	8,600	0.000
6/22/99	25	0.0000	0	0.00000	11,000	0.000
6/22/99	25	0.0000	0	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	653,000	0.000
Total Pounds Removed:		0.0005		0.00003		0.006

Notes:

* = Ground water extracted per well estimated; subcontractor did not report individual well volumes

1) Mass removal calculations based on quarterly groundwater data.

2) MTBE concentrations based on results by EPA Method 8020, bold results by 8260.

3) Groundwater extracted by vacuum trucks provided by ECI. Water disposed of a Martinez Refinery.

4) Mass removed = Volume extracted (gallons) x Concentration (ug/L) x (1 g/1e9 ug) x (1 pound/453.6 g) x (3.785 L/1 gallon)

ATTACHMENT A

Blaine Ground Water Monitoring Report
and Field Notes

BLAINE
TECH SERVICES INC.



1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE

October 26, 1999

Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

Third Quarter 1999 Groundwater Monitoring at
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Monitoring performed on September 30, 1999

Groundwater Monitoring Report **990930-L-3**

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. Purge water (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/ek

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

cc: Anni Kreml
Cambria Environmental Technology, Inc.
1144 65th Street
Oakland, CA 94608-2411

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA
WIC #204-5508-5900

Well ID	Date	TPPH (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)	DO Reading (ppm)
MW-1 (a)	08/26/1998	2,700	28	55	59	39	33,000	NA	10.54	7.91	2.63	1.8
MW-1 (b)	08/26/1998	<1,000	22	<10	<10	<10	17,000	NA	10.54	7.91	2.63	2.2
MW-1	12/28/1998	<5,000	<50.0	<50.0	<50.0	<50.0	153,000	33,000	10.54	8.75	1.79	1.9
MW-1	03/29/1999	<2,000	<20.0	<20.0	<20.0	<20.0	693,000	NA	10.54	8.32	2.22	2.0
MW-1	06/22/1999	20,000	<200	<200	<200	<200	150,000	NA	10.54	9.05	1.49	1.7
MW-1	09/30/1999	<2,500	<25.0	<25.0	<25.0	<25.0	30,900	NA	10.54	8.35	2.19	2.6
MW-2 (a)	08/26/1998	<250	3.2	<2.5	<2.5	<2.5	4,000	NA	9.21	7.18	2.03	2.4
MW-2 (b)	08/26/1998	<250	3.1	<2.5	<2.5	<2.5	4,800	NA	9.21	7.18	2.03	2.7
MW-2 (D)(b)	08/26/1998	<250	4.8	<2.5	<2.5	6.0	3,300	NA	9.21	7.18	2.03	2.7
MW-2	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	28.8	NA	9.21	7.34	1.87	2.1
MW-2	03/29/1999	235	<0.500	<0.500	<0.500	3.4	101	NA	9.21	6.85	2.36	2.0
MW-2	06/22/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.21	7.10	2.11	1.9
MW-2	09/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	1,700	NA	9.21	8.06	1.15	1.0
MW-3 (a)	08/26/1998	2,300	180	330	<0.50	420	44,000	NA	9.45	6.52	2.93	1.8
MW-3 (b)	08/26/1998	<50	<0.50	<0.50	<0.50	<0.50	52,000	75,000	9.45	6.52	2.93	2.3
MW-3	12/28/1998	<5,00	139	<50.0	<50.0	<50.0	15,100	NA	9.45	6.73	2.72	1.7
MW-3	03/29/1999	52,500	5,500	6,900	1,360	6,250	508,000	630,000 (c)	9.45	6.21	3.24	2.1
MW-3	06/22/1999	58,000	6,600	9,850	1,640	6,950	677,000	653,000	9.45	7.00	2.45	1.3
MW-3	09/30/1999	4,360	121	122	361	647	33,700	35,600	9.45	6.84	2.61	0.6
A	06/22/1999	318	<0.50	<0.50	0.590	1.48	4,470	NA	NA	4.71	NA	1.1
B	06/22/1999	<250	<2.5	<2.5	<2.5	<2.5	8,600	NA	NA	5.90	NA	1.2

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA
WIC #204-5508-5900

Well ID	Date	TPPH (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)	DO Reading (ppm)
C	06/22/1999	<50	<0.50	<0.50	<0.50	0.98	11,000	NA	NA	5.91	NA	1.6
D	06/22/1999	<50.0	<0.500	<0.500	<0.500	<0.500	2,190	NA	NA	4.78	NA	1.4

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

ppm = parts per million

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

Notes:

a = pre-purge

b = post purge

c = Lab confirmed MTBE by mistake.

MTBE value at MW-1 should have been confirmed instead.



Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

October 18, 1999

Leah Davis
Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

RE: Equiva(2)/L910036

Dear Leah Davis:

Enclosed are the results of analyses for sample(s) received by the laboratory on October 1, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson
Project Manager

CA ELAP Certificate Number I-2360





Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Project: Equiva(2)
Project Number: 540 Hegenberger Road, Oakland
Project Manager: Ann Pember

Sampled: 9/30/99
Received: 10/1/99
Reported: 10/18/99

ANALYTICAL REPORT FOR L910036

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	L910036-01	Water	9/30/99
MW-2	L910036-02	Water	9/30/99
MW-3	L910036-03	Water	9/30/99





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Sample Description: MW-1
Laboratory Sample Number: L910036-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9100061	10/13/99	10/14/99		2500	ND	ug/l	
Benzene	"	"	"		25.0	ND	"	
Toluene	"	"	"		25.0	ND	"	
Ethylbenzene	"	"	"		25.0	ND	"	
Xylenes (total)	"	"	"		25.0	ND	"	
Methyl tert-butyl ether	9100072	10/14/99	10/14/99		1000	30900	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9100061	10/13/99	10/14/99	70.0-130		83.1	%	





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Sample Description: MW-2
Laboratory Sample Number: L910036-02

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9100073	10/14/99	10/14/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	9100072	"	"		50.0	1700	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9100073	"	"	70.0-130		96.1	%	





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Sample Description: MW-3
Laboratory Sample Number: L910036-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9100061	10/13/99	10/14/99		2500	4360	ug/l	1
Benzene	"	"	"		25.0	121	"	
Toluene	"	"	"		25.0	122	"	
Ethylbenzene	"	"	"		25.0	36.1	"	
Xylenes (total)	"	"	"		25.0	647	"	
Methyl tert-butyl ether	9100072	10/14/99	"		2000	33700	"	
Surrogate: a,a,a-Trifluorotoluene	9100061	10/13/99	"	70.0-130		85.0	%	

MTBE by EPA Method 8260A

Methyl tert-butyl ether	9100049	10/15/99	10/15/99		71.4	35600	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	70.0-121		103	%	





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100061			Date Prepared: 10/13/99			Extraction Method: EPA 5030B [P/T]				
Blank			9100061-BLK1							
Purgeable Hydrocarbons as Gasoline	10/13/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.55	"	70.0-130	85.5			
LCS			9100061-BS1							
Benzene	10/13/99	10.0		7.74	ug/l	70.0-130	77.4			
Toluene	"	10.0		7.69	"	70.0-130	76.9			
Ethylbenzene	"	10.0		7.75	"	70.0-130	77.5			
Xylenes (total)	"	30.0		23.3	"	70.0-130	77.7			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.73	"	70.0-130	77.3			
LCS			9100061-BS2							
Purgeable Hydrocarbons as Gasoline	10/13/99	250		248	ug/l	70.0-130	99.2			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.89	"	70.0-130	78.9			
Matrix Spike			9100061-MS1 L910030-01							
Purgeable Hydrocarbons as Gasoline	10/13/99	250	ND	253	ug/l	60.0-140	101			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.30	"	70.0-130	93.0			
Matrix Spike Dup			9100061-MSD1 L910030-01							
Purgeable Hydrocarbons as Gasoline	10/13/99	250	ND	253	ug/l	60.0-140	101	25.0	0	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.09	"	70.0-130	90.9			
Batch: 9100073			Date Prepared: 10/14/99			Extraction Method: EPA 5030B [P/T]				
Blank			9100073-BLK1							
Purgeable Hydrocarbons as Gasoline	10/14/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.74	"	70.0-130	87.4			
LCS			9100073-BS1							
Benzene	10/14/99	10.0		8.00	ug/l	70.0-130	80.0			
Toluene	"	10.0		7.51	"	70.0-130	75.1			





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>LCS (continued)</u>										
	<u>9100073-BS1</u>									
Ethylbenzene	10/14/99	10.0		7.67	ug/l	70.0-130	76.7			
Xylenes (total)	"	30.0		22.5	"	70.0-130	75.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.23	"	70.0-130	82.3			
<u>LCS</u>										
	<u>9100073-BS2</u>									
Purgeable Hydrocarbons as Gasoline	10/14/99	250		245	ug/l	70.0-130	98.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.40	"	70.0-130	84.0			
<u>Matrix Spike</u>										
	<u>9100073-MS1</u>		<u>L910033-03</u>							
Benzene	10/15/99	10.0	ND	7.83	ug/l	60.0-140	78.3			
Toluene	"	10.0	ND	7.51	"	60.0-140	75.1			
Ethylbenzene	"	10.0	ND	7.56	"	60.0-140	75.6			
Xylenes (total)	"	30.0	ND	22.1	"	60.0-140	73.7			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.35	"	70.0-130	83.5			
<u>Matrix Spike Dup</u>										
	<u>9100073-MSD1</u>		<u>L910033-03</u>							
Benzene	10/15/99	10.0	ND	7.14	ug/l	60.0-140	71.4	25.0	9.22	
Toluene	"	10.0	ND	6.84	"	60.0-140	68.4	25.0	9.34	
Ethylbenzene	"	10.0	ND	6.97	"	60.0-140	69.7	25.0	8.12	
Xylenes (total)	"	30.0	ND	20.1	"	60.0-140	67.0	25.0	9.52	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		7.72	"	70.0-130	77.2			





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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**MTBE by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100049			Date Prepared: 10/11/99			Extraction Method: EPA 5030B [P/T]				
Blank										
Methyl tert-butyl ether	10/11/99			ND	ug/l	0.500				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		47.2	"	76.0-114	94.4			
Blank										
Methyl tert-butyl ether	10/15/99			ND	ug/l	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.0	"	76.0-114	96.0			
LCS										
Methyl tert-butyl ether	10/11/99	50.0		38.6	ug/l	70.0-130	77.2			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.5	"	76.0-114	99.0			
LCS										
Methyl tert-butyl ether	10/15/99	50.0		43.9	ug/l	70.0-130	87.8			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		47.8	"	76.0-114	95.6			
Matrix Spike										
Methyl tert-butyl ether	10/11/99	50.0	35.0	67.5	ug/l	60.0-140	65.0			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.4	"	76.0-114	96.8			
Matrix Spike Dup										
Methyl tert-butyl ether	10/11/99	50.0	35.0	68.6	ug/l	60.0-140	67.2	25.0	3.33	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.1	"	76.0-114	96.2			





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva(2) Project Number: 540 Hegenberger Road, Oakland Project Manager: Ann Pember	Sampled: 9/30/99 Received: 10/1/99 Reported: 10/18/99
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Notes and Definitions

#	Note
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- 1 Chromatogram Pattern: Gasoline C6-C12
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference



EQUIVA WELL MONITORING DATA SHEET

Project #: 990930-L3	Job # 204-5508-5900
Sampler: Lead	Date: 09-30-99
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.43	Depth to Water: 8.35
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Purge Method: (Bailer) Middleburg
 Electric Submersible Extraction Pump
 Other: _____

Sampling Method: (Bailer) Extraction Port
 Other: _____

2.6	x	3	=	7.8	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1631	68.7	7.0	21330	>200	3	
1637	68.5	7.1	19680	>200	6	
1643	69.6	7.1	18040	>200	8	

Did well dewater? Yes No Gallons actually evacuated: 8

Sampling Time: 1645 Sampling Date: 09-30-99

Sample I.D.: MW-1 Laboratory: (Sequoia) BC Other _____

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

D.O. (if req'd): 2.6	Pre-purge: 2.6 mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge: mV	Post-purge: mV

EQUIVA WELL MONITORING DATA SHEET

Project #: <u>990930-L3</u>	Job # <u>204-5508-5900</u>
Sampler: <u>Lad</u>	Date: <u>09-30-99</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>19.30</u>	Depth to Water: <u>8.06</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Purge Method: Bailer
Middleburg
 Electric Submersible
 Extraction Pump
 Other: _____

Sampling Method: Bailer
Extraction Port
 Other: _____

<u>1.8</u>	x	<u>3</u>	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>16:15</u>	<u>74.9</u>	<u>7.2</u>	<u>1096.</u>	<u>>200.</u>	<u>2</u>	
<u>16:18</u>	<u>72.2</u>	<u>7.2</u>	<u>1160.</u>	<u>>200.</u>	<u>4</u>	
<u>16:22</u>	<u>71.6</u>	<u>7.2</u>	<u>1323</u>	<u>>200.</u>	<u>6</u>	

Did well dewater? Yes No Gallons actually evacuated: 6.

Sampling Time: 1625 Sampling Date: 09-30-99

Sample I.D.: MW-2 Laboratory: Sequoia BC Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge: <u>1.0</u> mg/L	Post-purge:	
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge:	_____ mV

SHELL WELL MONITORING DATA SHEET

Project #: 990930-23	WIC #: 204-5508-5900
Sampler: Lad	Date: 09-30-99
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 19.55	Depth to Water: 6.84
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.163

Purge Method: (Bailer) Middleburg
 Electric Submersible Extraction Pump
 Other: _____

Sampling Method: (Bailer) Extraction Port
 Other: _____

ENVIRONMENTAL PROTECTION
 00 FEB 17 PM 4: 17

2.0	x	3	=	6.0	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1653	70.8	7.2	14300.	7200.	2.	ODOR
1656	70.9	7.3	12960.	7200.	4	
1700	69.9	7.4	13580.	7200.	6.	

Did well dewater? Yes (No)

Gallons actually evacuated: 6.

Sampling Time: 1705 Sampling Date: 09-30-99

Sample I.D.: MW-3 Laboratory: (Sequoia) Crosby

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

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd): ~~0.6~~ Pre-purge: 0.6 mg/L Post-purge: mg/L