CAMBRIA

December 29, 2000

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

RO #493

Re:

Third Quarter 2000 Monitoring Report

Shell-branded Service Station 610 Market Street Oakland, California Incident #99895750

Cambria Project #242-0594-002



Dear Mr. Seto:

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.

THIRD QUARTER 2000 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a groundwater elevation contour map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

Oakland, C San Ramon, C Sonoma, C

Cambria **
Environmental
Technology, Inc.

Mobile Dual-Phase Vacuum Extraction Treatment (DVE): In March 2000, Cambria began coordinating DVE from wells MW-2 and MW-3. DVE removes soil vapors and separate phase hydrocarbons from the vadose zone and enhances groundwater removal from remediation or monitoring wells.

Mobile DVE equipment consists of a dedicated extraction "stinger" installed in each well, a acarbon vapor treatment system. Hydrocarbon mass removal calculations for extracted groundwater and vapor are presented in Tables 1 and 2, respectively.

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

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ANTICIPATED FOURTH QUARTER 2000 ACTIVITIES

Groundwater Monitoring: Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

Dual-Phase Vacuum Extraction Mobile Treatment (DVE): Cambria will coordinate DVE from monitoring wells MW-2 and MW-3. Groundwater mass removal data will be presented in the forthcoming quarterly monitoring report.



Proposed Site Investigation: Cambria is obtaining encroachment permits from the City of Oakland and will proceed with previously proposed activities once permits have been approved. This work was proposed in Cambria's work plan dated February 18, 2000.

CAMBRIA

CLOSING

We appreciate the opportunity to work with you on this project. Please call Troy Buggle at (510) 420-3333 if you have any questions or comments.

Sincerely,

Cambria Environmental Technology, Inc

(1) for 1

Troy A. Buggle

Project Environmental Scientist

Stephan A. Bork, C.E.G., C.HG.

Associate Hydrogeologist

Figure:

1 - Groundwater Elevation Contour Map

Table:

1 - Groundwater Extraction - Mass Removal Data

2 - Soil Vapor Extraction - Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc:

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

No. EG 2058 CERTIFIED ENGINEERING

GEOLOGIS

Virginia R. Rawson, Tr., 1860 Tice Creek Drive #1353, Walnut Creek, CA 94595

Ronald L. & Cathy L. Labatt, PO Box 462, Kamiah, ID 83536

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Shell-branded Service Station

610 Market Street Oakland, California Incident #98995750



Groundwater Elevation
Contour Map

September 21, 2000

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, CA

					1	ТРРН			Benzene	-		MTBE	
			Cumulative				ТРРН		_	Benzene			MTBE
		Volume	Volume		ТРРН	TPPH	Removed	Benzene	Benzene	Removed	мтве	MTBE	Removed
Date	Well	Pumped	Pumped	Date	Concentration	Removed	To Date	Concentration	Removed	· to Date	Concentration	Removed	To Date
Purged	ID	(gal)	(gal)	Sampled	(ppb)	(lb)	(lb)	(ppb)	(lb)	(lb)	(ppb)	(lb)	(lb)
	 -							21.5	0.00000	0.00000	12.000	0.00000	0.00000
03/15/00	MW-2	0	0	03/21/00	< 5,000	< 0.00000	< 0.00000	94.7	0.00000	0.00000	13,900	0.00000	
03/22/00	MW-2	100	100	03/21/00	< 5,000	< 0.00417	< 0.00417	94.7	0.00008	0.00008	13,900	0.01160	0.01160
03/27/00	MW-2	75	175	03/21/00	< 5,000	< 0.00313	< 0.00730	94.7	0.00006	0.00014	13,900	0.00870	0.02030
04/03/00	MW-2	100	275	03/21/00	< 5,000	< 0.00417	< 0.01147	94.7	0.00008	0.00022	13,900	0.01160	0.03190
04/17/00	MW-2	200	475	03/21/00	< 5,000	< 0.00834	< 0.01982	94.7	0.00016	0.00038	13,900	0.02320	0.05509
04/24/00	MW-2	125	600	03/21/00	< 5,000	< 0.00522	< 0.02503	94.7	0.00010	0.00047	13,900	0.01450	0.06959
05/01/00	MW-2	50	650	03/21/00	< 5,000	< 0.00209	< 0.02712	94.7	0.00004	0.00051	13,900	0.00580	0.07539
05/15/00	MW-2	75	725	03/21/00	< 5,000	< 0.00313	< 0.03025	94.7	0.00006	0.00057	13,900	0.00870	0.08409
05/22/00	MW-2	100	825	03/21/00	< 5,000	< 0.00417	< 0.03442	94.7	0.00008	0.00065	13,900	0.01160	0.09569
05/29/00	MW-2	75	900	03/21/00	< 5,000	< 0.00313	< 0.03755	94.7	0.00006	0.00071	13,900	0.00870	0.10439
06/05/00	MW-2	617	1,517	03/21/00	< 5,000	< 0.02574	< 0.06329	94.7	0.00049	0.00120	13,900	0.07156	0.17595
08/17/00	MW-2	665	2,182	06/20/00	101	0.00056	< 0.06385	5.95	0.00003	0.00123	7,670	0.04256	0.21851
09/13/00	MW-2	429	2,611	06/20/00	101	0.00036	< 0.06421	5.95	0.00002	0.00125	7,670	0.02746	0.24597
03/15/00	MW-3	500	500	03/21/00	< 25,000	< 0.02086	< 0.02086	466	0.00194	0.00194	155,000	0.64669	0.64669
03/22/00	MW-3	100	600	03/21/00	< 25,000	< 0.01565	< 0.03651	466	0.00039	0.00233	155,000	0.12934	0.77603
03/27/00	MW-3	75	675	03/21/00	< 25,000	< 0.01565	< 0.05215	466	0.00029	0.00262	155,000	0.09700	0.87303
04/03/00	MW-3	100	775	03/21/00	< 25,000	< 0.02086	< 0.07301	466	0.00039	0.00301	155,000	0.12934	1.00237
04/17/00	MW-3	200	975	03/21/00	< 25,000	< 0.04172	< 0.11473	466	0.00078	0.00379	155,000	0.25868	1.26104
04/24/00	MW-3	125	1,100	03/21/00	< 25,000	< 0.02608	< 0.14081	466	0.00049	0.00428	155,000	0.16167	1.42271
05/01/00	MW-3	100	1,200	03/21/00	< 25,000	< 0.02086	< 0.16167	466	0.00039	0.00467	155,000	0.12934	1.55205
05/15/00	MW-3	75	1,275	03/21/00	< 25,000	< 0.01565	< 0.17732	466	0.00029	0.00496	155,000	0.09700	1.64905
05/22/00	MW-3	50	1,325	03/21/00	< 25,000	< 0.01043	< 0.18775	466	0.00019	0.00515	155,000	0.06467	1.71372
05/29/00	MW-3	75	1,400	03/21/00	< 25,000	< 0.01565	< 0.20339	466	0.00029	0.00544	155,000	0.09700	1.81073
05/29/00	MW-3	73 675	2,075	03/21/00	< 25,000	< 0.14081	< 0.34420	466	0.00262	0.00807	155,000	0.87303	2.68375
	MW-3	554	2,629	06/20/00	16,200	0.07489	< 0.41909	1,140	0.00527	0.01334	579,000	2.67659	5.36034
08/17/00			3,345	06/20/00	16,200	0.09679	< 0.51588	1,140	0.00681	0.02015	579,000	3.45927	8.81961
09/13/00	MW-3	716	3,343	00/20/00	10,200	0.09019	C 0.31500	1,140	J.0000 X	0102012	,	\$1.00x = 1	*·****

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, CA

Total Gallons Extracted: 5.956 Total Pounds Removed: < 0.58010 0.02140 9.0655 Total Gallons Removed: < 0.09510 0.00293 1.462	W
	ALTONO DE LA COMPANIONE

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline

MtBE = Methyl tert-butyl ether

 $\mu g/L = Micrograms per liter$

ppb = Parts per billion, equivalent to μg/L

lb = Pound

SPH = Separate phase hydrocarbons

L = Liter

gal = Gallon

g = Gram

Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10°µg) x (pound/453.6g) x (3.785 L/gal)

Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)

TPPH and benzene analyzed by EPA Method 8015/8020

MTBE data in bold font analyzed by EPA Method 8260, all other MTBE analyzed by EPA Method 8020

Concentrations based on most recent groundwater monitoring results

Groundwater extracted by vacuum trucks provided by ACTI; water disposed of at a Martinez refinery

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, California

							<u>T</u>	PHg		<u>Benzene</u>		<u>MTBE</u>
		Interval	System				TPHg	Cumulative	Benzene	Cumulative	MTBE	Cumulativ
		Hours of	Flow	Hyd	rocarbon Concer	ntrations	Removal	TPHg	Removal	Benzene	Removal	MTBE
	Well	Operation	Rate	ТРНд	Benzene	мтве	Rate	Removed	Rate	Removed	Rate	Removed
Date	ID	(hours)	(CFM)	((Concentrations in	ppmv)	(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
03/15/00	MW-2	0	0	NA	NA	NA	0.000	0.000	0.000	0.000	0.000	0.000
04/17/00	MW-2	1.00	0.86	15.9	0.340	519	0.000	0.000	0.000	0.000	0.006	0.006
06/05/00	MW-2	0.91	9.8	1,910	62.7	363	0.250	0.228	0.007	0.007	0.049	0.050
07/07/00	MW-2	3.67	13.7	473	< 3.1	42	0.087	0.546	< 0.001	< 0.009	0.008	0.079
08/17/00	MW-2	4.00	17	1,799	61	149	0.409	2.181	0.013	< 0.059	0.035	0.218
09/13/00	MW-2	2.75	38	3,300	< 15.7	631	1.676	6.791	< 0.007	< 0.079	0.328	1.120
03/15/00	MW-3	0.22	0.87	3,400	50	410	0.040	0.009	0.001	0.000	0.005	0.001
03/15/00	MW-3	3.27	0.74	3,700	47	410	0.037	0.128	0.000	0.001	0.004	0.015
04/17/00	MW-3	1.00	7.8	246	8.05	2,850	0.026	0.154	0.001	0.002	0.304	0.319
06/05/00	MW-3	3.91	5	2,130	23.0	529	0.142	0.711	0.001	0.008	0.036	0.460
07/07/00	MW-3	1.67	0.8	< 2,833	57	3,861	< 0.030	< 0.761	0.001	0.009	0.042	0.531
08/17/00	MW-3	1.50	2.8	22,833	346	4,222	0.855	< 2.043	0.012	0.026	0.162	0.773
09/13/00	MW-3	4.00	34	15,200	< 31.4	1,670	6.909	< 29.677	< 0.013	< 0.078	0.777	3.880
	ds Remove		ander establi	17. mil 2000. P				=<36,468	Benzene	= < 0.157	MTBE	= 5.000

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, California

Abbreviations and Notes:

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

= Pounds

NA = Not available

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

ATTACHMENT A Blaine Groundwater Monitoring Report and Field Notes





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

October 20, 2000

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

> Third Quarter 2000 Groundwater Monitoring at Shell-branded Service Station 610 Market Street Oakland, CA

Monitoring performed on September 21, 2000

Groundwater Monitoring Report 000921-S-2

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 Shell Martinez Manufacturing Complex.

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

Deidre Kerwin Operations Manager

DK/jt

attachments: Cumulative Table of WELL CONCENTRATIONS

Certified Analytical Report

Field Data Sheet

cc: Anni Kreml

Cambria Environmental 1144 65th St. Suite C Oakland, CA 94608-2411

WELL CONCENTRATIONS Shell-branded Service Station 610 Market Street Oakland, CA WIC #204-5508-5702

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)
<u> </u>		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(IVIOL)	(11.)	(IVIOL)
MW-1	12/17/1998	2,200	20	<10	110	420	<50	NA	21.70	13.71	7.99
MW-1	03/09/1999	4,320	25.8	<10.0	338	474	<100	NA	21.70	13.03	8.67
MW-1	06/16/1999	6,150	107	84.0	615	1,050	<250	NA	21.70	13.82	7.88
MW-1	09/29/1999	3,440	97.3	58.7	433	578	89.1	NA	21.70	14.45	7.25
MW-1	12/22/1999	1,370	34.5	4.38	196	49.1	29.3	NA	21.70	15.39	6.31
MW-1	03/21/2000	2,550	10.3	3.36	164	312	65.6	NA	21.70	11.94	9.76
MW-1	06/20/2000	4,770	64.3	18.6	387	732	51.3	NA	21.70	13.15	8.55
MW-1	09/21/2000	7,490	350	229	690	1,490	160	NA	21.70	13.65	8.05
							-			-	
MW-2	12/17/1998	<5,000	<50	<50	<50	<50	11,000	NA	19.61	12.07	7.54
MW-2	03/09/1999	<250	5.20	<2.50	<2.50	<2.50	9,870	NA	19.61	11.46	8.15
MW-2	06/16/1999	<50.0	0.569	<0.500	<0.500	<0.500	3,440	NA	19.61	12.26	7.35
MW-2	09/29/1999	58.6	2.51	0.978	<0.500	<0.500	3,930	NA	19.61	12.51	7.10
MW-2	12/22/1999	<2,000	50.4	<20.0	<20.0	<20.0	15,000	NA	19.61	13.40	6.21
MW-2	03/21/2000	<5,000	94.7	<50.0	<50.0	<50.0	13,900	NA	19.61	10.36	9.25
MW-2	06/20/2000	101	5.95	<0.500	<0.500	0.552	7,670	NA	19.61	11.12	8.49
MW-2	09/21/2000	<2,000	<20.0	<20.0	<20.0	<20.0	4,460	NA	19.61	11.95	7.66
MW-3	12/17/1998	30,000	890	110	2,100	4,300	42,000	43,000	19.05	11.65	7.40
MW-3	03/09/1999	22,700	536	<200	1,030	1,510	35,400	38,500	19.05	11.03	8.02
MW-3	06/16/1999	19,300	625	129	805	1,210	42,400	51,600	19.05	11.89	7.16
MW-3	09/29/1999	20,200	727	155	1,000	1,180	84,100	136,000a	19.05	12.35	6.70
MW-3	12/22/1999	44,500	767	64.4	1,810	2,090	191,000	186,000a	19.05	13.45	5.60
MW-3	03/21/2000	<25,000	466	<250	727	2,280	126,000	155,000	19.05	10.00	9.05
MW-3	06/20/2000	16,200	1,140	98.8	1,140	1,410	579,000	376,000a	19.05	11.15	7.90
MW-3	09/21/2000	<50,000	712	<500	520	795	293,000	298,000	19.05	11.58	7.47

WELL CONCENTRATIONS

Shell-branded Service Station

610 Market Street

Oakland, CA

WIC	#204	-5508	3-5702
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							MTBE	MTBE		Depth to	GW
Well ID	Date	TPPH	В	Т	Ε	Х	8020	8260	TOC	Water	Elevation
		(ug/L)	(MSL)	(ft.)	(MSL)						

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 by EPA Method 8020

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

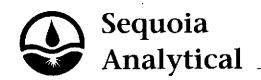
NA = Not applicable

Notes:

Wells MW-1, MW-2, and MW-3 surveyed December 9, 1998 by Virgil Chavez Land Surveying of Vallejo, California.

a = Sample was analyzed outside the EPA recommended holding time.





9 October, 2000

Nick Sudano Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112

RE: 610 Market Street Sequoia Report: MJI0539

Enclosed are the results of analyses for samples received by the laboratory on 09/22/00 12:19. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson

Client Services Manager

CA ELAP Certificate #1210



885 Jarvis Drive Morgan Hill, CA 95037 (408) 776-9600 FAX (408) 782-6308 www.sequolalabs.com

Blaine Tech Services (Shell)

1680 Rogers Avenue San Jose CA, 95112 Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA

Project Manager: Nick Sudano

Reported: 10/09/00 16:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-I	МЛ0539-01	Water	09/21/00 15:42	09/22/00 12:19
MW-2	МЛО539-02	Water	09/21/00 15:22	09/22/00 12:19
MW-3	MJI0539-03	Water	09/21/00 16:02	09/22/00 12:19

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Wayne Stevenson, Client Services Manager





Blaine Tech Services (Shell)

1680 Rogers Avenue San Jose CA, 95112 Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA

Project Manager: Nick Sudano

Reported: 10/09/00 16:44

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MJ10539-01) Water	Sampled: 09/21/00 15:42	Received: (09/22/00	12:19					
Purgeable Hydrocarbons	7490	500	ug/l	10	0128002	09/28/00	09/28/00	DHS LUFT	P-01
Benzene	350	5.00	#	91	**	u	н	tt	
Toluene	229	5.00	**	**	**	**	II	**	
Ethylbenzene	690	5.00	•	••	н	**	II	•	
Xylenes (total)	1490	5.00	**	*	п	"	н	**	
Methyl tert-butyl ether	160	25.0	. "	**	н	11			
Surrogate: a,a,a-Trifluorotolue	ene	100 %	70-	-130	н	"	n	"	
MW-2 (MJI0539-02) Water	Sampled: 09/21/00 15:22	Received:	09/22/00	12:19					
Purgeable Hydrocarbons	ND	2000	ug/l	40	0129003	09/29/00	09/29/00	DHS LUFT	R-05
Веплепе	ND	20.0	•	II .	••	H	**	11	R-0.
Toluene	ND	20.0	41	н	10	н	**	II	R-0:
Ethylbenzene	ND	20.0	te.	**	**	II	11	II	R-0:
Xylenes (total)	ND	20.0	•	•		11	n	п	R-0:
Methyl tert-butyl ether	4460	100	**	**	**				R-0:
Surrogate: a,a,a-Trifluorotolu	ene	88.3 %	70	-130	,,	"	u	u	R-0:
MW-3 (MJI0539-03) Water	Sampled: 09/21/00 16:02	Received:	09/22/00	12:19					
Purgeable Hydrocarbons	ND	50000	ug/l	1000	0128002	09/28/00	09/28/00	DHS LUFT	R-05
Benzene	712	500	u	н	н	**	34	*	R-0:
Toluene	ND	500	**	п	•	**	11	**	R-03
Ethylbenzene	520	500	**	"	"	19	*	н	R-0.
Xylenes (total)	795	500	**	**	~	n	**		R-0.
Methyl tert-butyl ether	293000	2500		"		н		u	
Surrogate: a,a,a-Trifluorotolu	ene	95.5 %	70	-130	"	n	"	"	





Blaine Tech Services (Shell) 1680 Rogers Avenue

San Jose CA, 95112

Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA

Project Manager: Nick Sudano

Reported: 10/09/00 16:44

MTBE Confirmation by EPA Method 8260A

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MJ10539-03) Water	Sampled: 09/21/00 16:02	Received:	09/22/00	12:19					
Methyl tert-butyl ether	298000	10000	ug/l	19000	0J04021	10/04/00	10/04/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane	?-d4	114%	70-	130	"	"	"	"	





Blaine Tech Services (Shell)

1680 Rogers Avenue San Jose CA, 95112 Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA Project Manager: Nick Sudano Reported: 10/09/00 16:44

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I28002 - EPA 5030B [P/T]										
Blank (0128002-BLK1)				Prepared	& Analyze	ed: 09/28/	00			
Purgeable Hydrocarbons	ND	50.0	ug/l	.						
Benzene	ND	0.500	**							
Tolucne	ND	0.500	*							
Ethylbenzene	ND	0.500	••							
Xylenes (total)	ND	0.500	**							
Methyl tert-butyl ether	ND	2.50	**							
Surrogate: a,a,a-Trifluorotoluene	9.23		"	10.0		92.3	70-130			
LCS (0128002-BS1)				Prepared	& Analyze	ed: 09/28/	00			
Purgeable Hydrocarbons	226	50.0	ug/l	250		90.4	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.84		· · · · · · · · · · · · · · · · · · ·	10.0		98.4	70-130			
Matrix Spike (0128002-MS1)	Sou	ırce: MJI05	41-01	Prepared	& Analyzo	ed: 09/28/	00			
Purgeable Hydrocarbons	254	50.0	ug/I	250	ND	102	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.99		и	10.0		99.9	70-130			
Matrix Spike Dup (0128002-MSD1)	Sou	irce: MJI05	41-01	Prepared & Analyzed: 09/28/00						
Purgeable Hydrocarbons	253	50.0	ug/l	250	ND	101	60-140	0.394	25	
Surrogate: a,a,a-Trifluorotoluene	9.97		"	10.0		99.7	70-130			*************
Batch 0129003 - EPA 5030B [P/T]										
Blank (0129003-BLK1)				Prepared	& Analyz	ed: 09/29/	00			
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"		,					
Toluene	ND	0.500	н							
Ethylbenzene	ND	0.500	n n							
Xylenes (total)	ND	0.500	п							
Methyl tert-butyl ether	ND	2.50	н							
Surrogate: a,a,a-Trifluorotoluene	8.96		н	10.0		89.6	70-130			





Blaine Tech Services (Shell) 1680 Rogers Avenue

San Jose CA, 95112

Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA

Project Manager: Nick Sudano

Reported: 10/09/00 16:44

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I29003 - EPA 5030B [P/T]								-		
LCS (0129003-BS1)	· · ·			Prepared	& Analyze	d: 09/29/0)()			
Purgeable Hydrocarbons	251	50.0	ug/l	250		100	70-130			
Surrogate: a,a,a-Trifluorotoluene	12.8	····	"	10.0		128	70-130			
Matrix Spike (0129003-MS1)	So	urce: MJI057	73-02	Prepared	& Analyze	:d: 09/29/0)()			
Purgeable Hydrocarbons	262	50.0	ug/l	250	ND	105	60-140			
Surrogate: a,a,a-Trifluorotoluene	12.9			10.0		129	70-130			
Matrix Spike Dup (0129003-MSD1)	Source: MJI0573-02 Prepared & Analyzed: 09/29/00									
Purgeable Hydrocarbons	279	50.0	ug/l	250	ND	112	60-140	6.28	25	
Surrogate: a,a,a-Trifluorotoluene	12.9		n	10.0		129	70-130			

Page 5 of 7





Blaine Tech Services (Shell)

Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA

Reported: 10/09/00 16:44

1680 Rogers Avenue San Jose CA, 95112

Project Manager: Nick Sudano

MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J04021 - EPA 5030B [P/T]										
Blank (0J04021-BLK1)				Prepared	& Analyzo	ed: 10/04/0	00			
Methyl tert-butyl ether	ND	1.00	ug/l							
Surrogate: 1,2-Dichloroethane-d4	8.40		"	10.0		84.0	70-130			
LCS (0J04021-BS1)				Prepared	& Analyz	ed: 10/04/0	00			
Methyl tert-butyl ether	9.54	1.00	ug/l	10.0		95.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	9.47		"	10.0		94.7	70-130			
LCS Dup (0J04021-BSD1)				Prepared	& Analyze	ed: 10/04/0	00			
Methyl tert-butyl ether	9.70	1.00	ug/l	10.0		97.0	70-130	1.66	25,	
Surrogate: 1,2-Dichloroethane-d4	9.04		"	10.0		90.4	70-130			•
Matrix Spike (0J04021-MS1)	Sc	ource: MJJ00	28-01	Prepared	& Analyze	ed: 10/04/0	00			
Methyl tert-butyl ether	2850	100	ug/l	1000	2060	79.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	9.69		"	10.0		96.9	70-130			
Matrix Spike Dup (0J04021-MSD1)	So	Source: MJJ0028-01			Prepared & Analyzed: 10/04/00					
Methyl tert-butyl ether	2770	100	ug/l	1000	2060	71.0	70-130	2.85	25	· · · · · · ·
Surrogate: 1,2-Dichloroethane-d4	10.6		,,	10.0		106	70-130			



885 Jarvis Drive Morgan Hill, CA 95037 (408) 776-9600 FAX (408) 782-6308 www.sequoialabs.com

Blaine Tech Services (Shell)

1680 Rogers Avenue San Jose CA, 95112 Project: 610 Market Street

Project Number: 610 Market St. Oakland, CA

Project Manager: Nick Sudano

Reported:

10/09/00 16:44

Notes and Definitions

P-01 Chromatogram Pattern: Gasoline C6-C12

R-05 The reporting limit(s) for this sample have been raised due to high levels of non-target interferents.

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

RPD Relative Percent Difference

1680 ROGERS AVENUE		CON	DUCT	ANAL	YSIŞ T	O DETECT	LAB Sequoia DHS#
Oakland, CA	ALL CONTAINERS				by 8260		ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND PRINCES REGION THER SPECIAL INSTRUCTIONS Send invoice to Equiva Incident # 98995750
MATRIX CONTAINERS MATRIX CONTAINERS ON ON SAMPLE I.D. DATE TIME SAMPLE SAMP	= composi PH - gas,	E by	MTBE by 8260	TPH - diesel	Oxygenates b		Send report to Blaine Tech Services, Inc. ATTN: Ann Pember Wick Suday ADD'L INFORMATION STATUS CONDITION LAB SAMPLE #
MW-2 152 W 3 07 MW-2 152 W 3 02 MW-3 V 1602 W 3 03	X	X	,				Coolis Higher MRE Hit By EPA \$260.10
							<u>0- 72 12</u> 19
SAMPLING DATE TIME SAMPLING							RESULTS NEEDED
RELEASED BY DA (LO) PERFORMED BY DA	ATE 2/2 ATE	1 2/0 2/0	TIME		7 🖣	RECEIVED BY	DATE TIME 1 1 1 1 1 1 1 1 1
INCLEASED 01	ATE SE		TIME		-	COOLER#	DATE TIME

WELL GAUGING DATA

Project # 00	094/-52	_ Date	7/2/100	Client E94/09 # 204-5509 5
Site 60	Market St.	Oaklara	d, cs	

r 			,		r 	T			
	777 11			Thickness]			
ļ	Well		Depth to	of	Immiscibles		į	Survey	
117 11 15	Size	Sheen /		Immiscible		Depth to water	Depth to well	Point: TOB	
Well ID	(in.)	Odor	Liquid (ft.)	Liquid (ft.)	(ml)	(ft.)	bottom (ft.)	or TOC	
MW-/	4		9 88 to 38	AL MAIN		13.65	2450	700	
1			1111 -	$\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{j=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{j=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{j$	·				
WM-7	H	odor	2 "1)	Tungon /		11 95	10 74		
		Sec. 27	(" s (" ;	1 (18 j.	\ .	7	19.75		
Mar.3	4	dos	/ t" d	Sthere)	11.58	10 7-		
	1		C	- 190	/	1133	79.75	─	

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Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

EQUIVA WELL MONITORING DATA SHEET

la ma										
BTS #:	0009	Han		Site: #204-5508-5702						
Sampler	Step	han		Date: 9/4/00						
Well I.D	· MW.	1		Well Diamete	Well Diameter: 2 3 4 6 8					
Total We	ell Depth:	24.55		Depth to Wate	Depth to Water: 13.65					
Depth to	Free Produ	uct:		į	Thickness of Free Product (feet):					
Reference	ed to:	(V)	Grade		D.O. Meter (if req'd): YSI HACH					
Disposable Bailer Perisi Middleburg Extra			Waterra Peristaltic Extraction Pump Other	Will IV						
1 Case Volu	7	3 pecified Volu	= 2 /. 2 g mes Calculated V	Gals. 1°	0.04 4" 0.16 6" 0.37 Cther	0.65 1.47 radius ² * 0.163				
Time	Temp (°F)	pН	Cond.	Turbidity	Gals. Removed	Observations				
1535	72.0	6.8	650.6	7200	7.09	cloudy				
05-36	77.7	_b.>_	849.0	7200	14.18	.,				
マネン	71.9	6.7	861.3	2200	21.27	11				
Did well d	lewater?	Yes	No)	Gallons actually	evacuated:	۵ ,				
Sampling '	Time:	54/2		Sampling Date:	9/21/00					
Sample I.I).: Mu	١٠١		aboratory: (Sequota Columbia Other						
Analyzed f	ल: एम-उ	BTEX	MIBE TPH-D (Other:						
EB I.D. (if	applicable	1:	(ĝ) Time I	Ouplicate I.D. (if applicable):						
Analyzed f	or: TPH-G	BTEX	MTBE TrH-D (Other:						
D.O. (if rec	-		Pre-purge:	mg/	Post-purge:	rng ; 7 L				
2.R.P. (if r	eqid):		Pre-purge:	ηV	บบราะมหาสิธา	mV'				
						*				

EQUIVA WELL MONITORING DATA SHEET BTS #: Site: #204-5508-5702 000021-52 Sampler: Stephan Date: Well I.D.: Well Diameter: 3 6 8 Total Well Depth: Depth to Water: 21.95 Depth to Free Product: Thickness of Free Product (feet): Referenced to: Grade D.O. Meter (if req'd): YSI HACH Purge Method: Sampling Method: (Baller) Bailer Waterra Disposable Bailer Disposable Bailer Peristaltic Extraction Port Middleburg Extraction Pump Dedicated Tubing Electric Submersible Other_ Other: Well Diameter Multiplier Well Diameter Multiplier 0.04 0.65 **5 - ヷ**フ (Gals.) X 15 .1 / Gals. 0.16 1.47 I Case Volume Specified Volumes 0.37 Calculated Volume radius * 0.163 Other Temp (°F) Time HqCond. Turbidity Gals. Removed Observations 1515 75.2 78.2741 £.0> 1200 Cloudy/pdor 1516 6.8 867. 9 10.14 7200 t₃ 4575 72.5 6.> e00.1 7200 15.21 1 1 Did well dewater? Yes Gallons actually evacuated: (Nd) Sampling Time: Sampling Date: Sample LD.: Laboratory: MW-2 Columbia Other Analyzed for: APH-G BTEX MIBE ITH-D Other: EB I.D. (if applicable): ιā: Duplicate I.D. (if applicable): Analyzed for: TPH-G BTEX MTBE TPH-D Other: D.O. (if reald): Pre-purge: Post-purge: me D.R.P. (if read):

mV

Post-purge:

mV

Pre-purge:

EQUIVA WELL MONITORING DATA SHEET BTS#: Site: 000921-52 Sampler: Date: Well I.D.: Well Diameter: Total Well Depth: Depth to Water: 11.58 Depth to Free Product: Thickness of Free Product (feet): Referenced to: D.O. Meter (if req'd): Grade YSI HACH Purge Method: Sampling Method: Baile Bailer Waterra Disposable Bailer Disposable Bailer Peristaltic Extraction Port Middleburg Extraction Pump **Dedicated Tubing** Electric Submersible Other_ Other: Well Diameter Multiplier Well Diameter Multiplier 0.04 5-31 (Gals.) X 0.65 15.93 Gals. 2" 0.16 6" 1.47 1 Case Volume Specified Volumes Calculated Volume 0.37 Other radius2 * 0.163 Temp (°F) Time pΗ Cond. Turbidity Gals. Removed Observations 1555 73.4 625.7 5.31 white 2**1**00 73.3 7221 579.1 10:62 6.9 2100 1.1 15.93 1257 73.1 - r00 6.8 548.3 1 1 Did well dewater? Yes Nð Gallons actually evacuated: Sampling Time: 1602 Sampling Date: 9/21/00 Sample I.D.: Mw.3 Laboratory: Sequoia Columbia Other Analyzed for: THG BTEX MTBE) TPH-D Other: (a) EB I.D. (if applicable): Duplicate I.D. (if applicable): Analyzed for: TPH-G BTEX MTBE TPH-D Other:

mV

mg/

mV

Post-purge:

Post-purge:

Pre-purge:

Pre-purge:

D.O. (if req'd):

O.R.P. (if reg'd):