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

Re: Second Quarter 2000 Monitoring Report

> Shell-branded Service Station 105 Fifth Street Oakland, California Incident #98995757 Cambria Project #242-0472-002



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.

SECOND 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.

Vacuum Tank Truck Operations: Cambria coordinated groundwater extraction from wells MW-2 and MW-3. Vacuum truck operations will be conducted through the second quarter 2000. Groundwater mass removal data is presented in Table 1 and vapor mass removal data is presented in Table 2.

Oakland, CA San Ramon, CA

Sonoma, CA

Portland, OR

ANTICIPATED THIRD QUARTER 2000 ACTIVITIES

Cambria. Environmental Technology, Inc.

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

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

Investigation and Monitoring Well Installation: Cambria is currently obtaining an encroachment permit and bond from the City of Oakland to conduct the proposed investigation and monitoring well installation

CAMBRIA

Conduit Study and Sensitive Receptor Survey: Cambria will conduct a conduit study in the vicinity of the site and a 2,000-foot radius sensitive receptor survey of the site.

Vacuum Tank Truck Operations: Based on evaluation of MTBE concentration trends in wells MW-2 and MW-3, Cambria will make recommendations regarding continuation of vacuum truck operations at the site.



CLOSING

We appreciate the opportunity to work with you on this project. Please call Darren Croteau at (510) 420-3331 if you have any questions or comments.

Sincerely,

Cambria Environmental Technology, Inc

Darren Croteau

Project Geologist

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

Associate Hydrogeologist

Figure: 1 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Mass Removal Data

2 - Vapor Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

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

Arthur R. and Mary A. Hansen, Trs., et al, 820 Loyola Drive, Los Altos, CA 94024

06:13/00

SB-1 . Soil boring location Proposed monitoring well location

SB-5 Proposed soil boring location

Groundwater flow direction

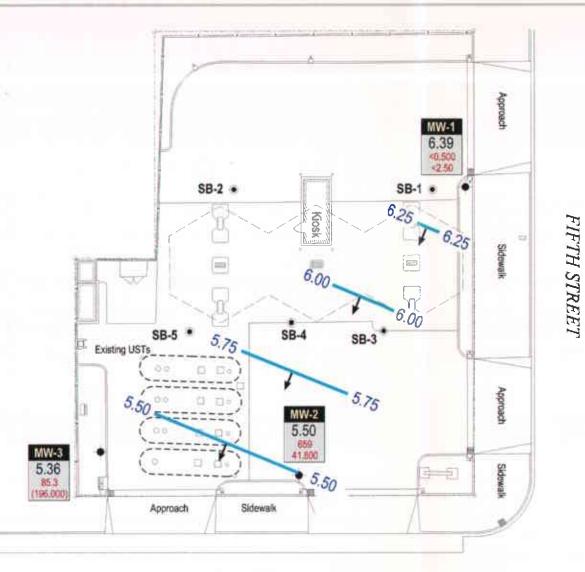
Groundwater elevation contour, in feet above mean sea level (msl), approximately located; dashed where inferred

Well designation Well ELEV

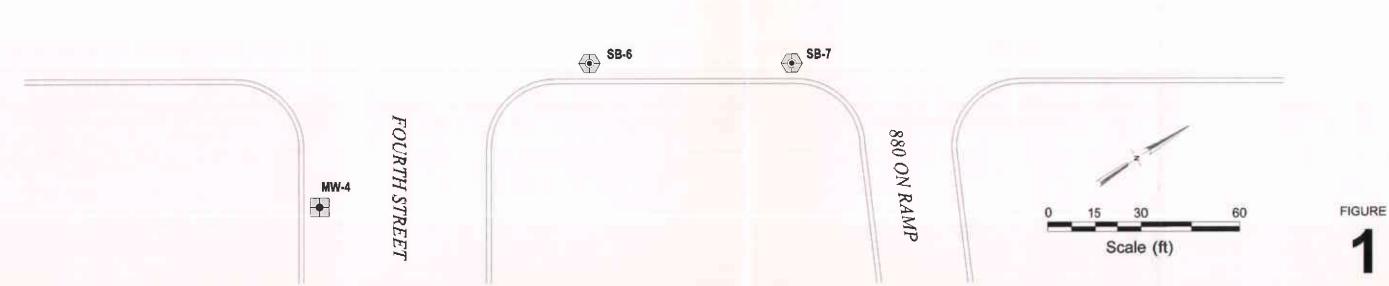
Benzero MTBE

Groundwater elevation, in feet above 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



OAK STREET



Shell-branded Service Station 105 Fifth Street Oakland, California Incident #98995757

Table 1: Groundwater Mass Removal Data - Shell-branded Service Station, Incident #98995757, 105 Fifth Street, Oakland, California

													1.400.0
			Cumulative	:			TPPH			Benzene			MTBE
		Volume	Volume		TPPH	TPPH	Removed	Benzene	Benzene	Removed	MTBE	MTBE	Remove
Date	Well	Pumped	Pumped	Date	Concentration	Removed	To Date	Concentration	Removed	To Date	Concentration	Removed	To Date
Purged	ID	(gal)	(gal)	Sampled	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds)	(ppb)	(pounds)	(pounds
04/21/00	MW-2	150	150	04/07/00	4,940	0.00618	0.00618	659	0.00082	0.00082	41,800	0.05232	0.05232
04/28/00	MW-2	100	250	04/07/00	4,940	0.00412	0.01031	659	0.00055	0.00137	41,800	0.03488	0.0872
05/05/00	MW-2	310	560	04/07/00	4,940	0.01278	0.02308	659	0.00170	0.00308	41,800	0.10813	0.19532
05/12/00	MW-2	350	910	04/07/00	4,940	0.01443	0.03751	659	0.00192	0.00500	41,800	0.12208	0.3174
06/02/00	MW-2	257	1,167	04/07/00	4,940	0.01059	0.04811	659	0.00141	0.00642	41,800	0.08964	0.4070
04/21/00	MW-3	100	100	04/07/00	< 1,000	< 0.00083	< 0.00083	85.3	0.00007	0.00007	283,000	0.23615	0.2361
04/28/00	MW-3	100	200	04/07/00	< 1,000	< 0.00083	< 0.00167	85.3	0.00007	0.00014	283,000	0.23615	0.4722
05/05/00	MW-3	50	250	04/07/00	< 1,000	< 0.00042	< 0.00209	85.3	0.00004	0.00018	283,000	0.11807	0.5903
05/12/00	MW-3	150	400	04/07/00	< 1,000	< 0.00125	< 0.00334	85.3	0.00011	0.00028	283,000	0.35422	0.9445
06/02/00	MW-3	550	950	04/07/00	< 1,000	< 0.00459	< 0.00793	85.3	0.00039	0.00068	283,000	1.29880	2.2433
otal Gallons	Extracted:	2,117		Total Pound	ls Removed:	< 0.05603			0.00709			2.65042	
				Total Gallo	ns Removed:	< 0.00919			0.00097			0.42749	

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline

MtBE = Methyl tert-butyl ether

μg/L = Micrograms per liter

ppb = Parts per billion, equivalent to µg/L

L = Liter

gal = Gallon

g = Gram

Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/106µg) 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, benzene analyzed by EPA Method 8015/8020

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

Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.

Table 2: Vapor Mass Removal Data - Shell-branded Service Station, Incident #98995757, 105 Fifth Street, Oakland, California

		Interval Hours of	System Flow	Н	lydrocarbon Conc	centrations	TPHg Removal	Cumulative TPHg	Benzene Removal	Cumulative Benzene	MTBE Removal	Cumulative MTBE
	Well	Operation	Rate	TPHg	Benzene	MTBE	Rate	Removed	Rate	Removed	Rate	Removed
Date	ID	(hours)	(CFM)		(Concentrations i	n ppmv)	(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
2											Ķ.	
04/21/00	MW-2	1.00	25	1,949	52	836	0.651	0.651	0.016	0.016	0.286	0.286
06/02/00	MW-2	2.08	6	30	6.51	269.0	0.002	0.656	0.000	0.017	0.022	0.332
04/21/00	MW-3	1.00	20	< 28	< 0.31	594	< 0.007	< 0.007	< 0.000	< 0.000	0.163	0.163
06/02/00	MW-3	4.25	3	< 14.2	0.36	2,656	0.001	0.010	0.000	0.000	0.109	0.626

Total Pounds Removed:	TPHg = < 0.010	Benzene = 0.000 MTBE = 0.626
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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

June 9, 2000

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

Second Quarter 2000 Groundwater Monitoring at Shell-branded Service Station 105 5th Street Oakland, CA

Monitoring performed on April 7, 2000

Groundwater Monitoring Report 000407-J-1

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

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 65th Street, Suite C
Oakland, CA 94608-2411

WELL CONCENTRATIONS Shell-branded Service Station 105 5th Street Oakland, CA

								MTBE	MTBE		Depth to	GW	
Well ID	Date	TPPH	TEPH	В	т	E	х	8020	8260	тос	Water		D.O. Reading
MAGII ID	Date	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	mg/L						
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(dg/L)	(ug/L)	(NOL)	(10.)	(INOL)	mg/E
													in .
MW-1	07/20/1999	NA	NA	12.22	17.56	-5.34	NA						
MW-1	07/23/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	<2.00	12.22	6.45	5.77	NA
MW-1	11/01/1999	100	NA	15.6	3.12	4.04	12.6	6.69	NA	12,22	6.59	5.63	0.5/0.7
MW-1	01/05/2000	<50.0	<20.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	12.22	6.38	5.84	1.2/1.4
MW-1	04/07/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA.	12.22	5.83	6.39	1.6/2.4
MW-2	07/20/1999	NA	NA	10.87	18.24	-7.37	NA						
MW-2	07/23/1999	13,800	NA	1,790	<100	<100	682	29,900	29,400	10.87	5.98	4,89	NA
MW-2	11/01/1999	2,420	NA	316	10.8	119	44.2	17,000	NA	10.87	6.03	4.84	0.5/0.3
MW-2	01/05/2000	2120a	687	301a	<5.00a	116a	84.4a	14,700	NA	10.87	5.90	4.97	2.1/2.6
MW-2	04/07/2000	4,940b	1,300	659b	<25.0b	214b	314b	41,800b	NA.	10.87	5.37	5,50	0.4/0.2
MW-3	07/20/1999	NA	NA	11.27	19.07	-7.80	NA						
MW-3	07/23/1999	128	NA	<0.500	<0.500	<0.500	<0.500	404,000	324,000	11.27	6.43	4.84	NA
MW-3	11/01/1999	<1,000	NA	<10.0	<10.0	<10.0	<10.0	169,000	224,000	11.27	6.48	4.79	0.5/0.3
MW-3	01/05/2000	137	322	<1.00	<1.00	<1.00	<1.00	165,000	219,000	11.27	6.35	4.92	2.4/2.2
MW-3	04/07/2000	<1,000	264	85.3	<10.0	<10.0	<10.0	283,000	196,000a	11.27	5.91	5.36	0.4/0.2

WELL CONCENTRATIONS

Shell-branded Service Station 105 5th Street

Oakland, CA

								MTBE	MTBE		Depth to	GW	
Well ID	Date	TPPH	TEPH	В	Т	E	X	8020	8260	TOC	Water	Elevation	D.O. Reading
		(ug/L)	(MSL)	(ft.)	(MSL)	mg/L							

Abbreviations:

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

TEPH = Total petroleum hydrocarbons as diesel 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

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

NA = Not applicable

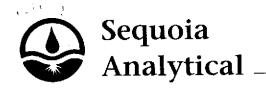
n/n = Pre-purge/Post-purge

Notes:

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

b = Result was generated out of hold time.





May 31st, 2000

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

RE: MTBE confirmations for 105 5th St., Sequoia project MJD0243

Dear Mr. Sudano:

Due to changes in analytical personnel and subsequent miscommunications there have been several instances of MTBE confirmations that have not been completed over the past two months for samples that have been brought to the Sequoia Analytical laboratory in Morgan Hill. We have since taken several steps to ratify this situation, involving implementation of new operating procedures for screening projects, which required acquiring a new instrument that will assist in meeting hold times as well as handling a larger volume of samples. All samples will be screened to determine which samples require MTBE analysis by 8260, concurrently with the BTEX analysis.

For the project referenced above, MTBE confirmations were not completed within hold time. It has been requested that we run the MTBE confirmations out of holding time, which will confirm the presence or absence of MTBE in the samples, as well as estimate the concentration already reported by EPA 8020. Shell will not be charged for these results.

We apologize for any inconvenience this has caused and look forward to providing you with improved service as a result of our new screening procedures.

Very Truly Yours,

Sequoia Analytical

Ted Terrasas Project Manager



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: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano Reported:

05/31/00 17:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-I	MJD0243-01	Water	04/07/00 09:50	04/10/00 11:41
MW-2	MJD0243-02	Water	04/07/00 10:30	04/10/00 11:41
MW-3	MJD0243-03	Water	04/07/00 10:10	04/10/00 11:41

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.

Ted Terrasas, Project Manager





1680 Rogers Avenue San Jose CA, 95112 Project: 105 5th St.

Project Number: 105 5th St.

Project Manager: Nick Sudano

Reported:

05/31/00 17:48

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 (MJD0243-01) Water	Sampled: 04/07/00 09:50	Received:	04/10/00	11:41					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0D20003	04/20/00	04/20/00	DHS LUFT	•
Benzene	ND	0.500	н	n	æ	11	n	ų	
Toluene	ND	0.500	н	н	10	4	*	#	
Ethylbenzene	ND	0.500	Ħ	FI	н	U	9	н	
Xylenes (total)	ND	0.500	**	**	*	4	*	"	
Methyl tert-butyl ether	ND	2.50	"	4		n			
Surrogate: a,a,a-Trifluorotoluer	ne	105 %	70	-130	,,	**	"	"	
MW-2 (MJD0243-02) Water	Sampled: 04/07/00 10:30	Received:	04/10/00	11:41					-···
Purgeable Hydrocarbons	4940	2500	ug/l	50	0D24002	04/24/00	04/24/00	DHS LUFT	H-04,P-01
Benzene	659	25.0	11	n	н	12	ii	**	H-04
Toluene	ND	25.0	н		4	**	H	"	H-04
Ethylbenzene	214	25.0	n	н	n	II.	11	74	H-04
Xylenes (total)	314	25.0	*	п	H		**	6	H-04
Methyl tert-butyl ether	41800	500	"	200	* :	н	04/25/00	# 	H-04,M-03
Surrogate: a,a,a-Trifiuorotoluei	re	5410%	70	-130	"	ž:	04/24/00	н	
MW-3 (MJD0243-03) Water	Sampled: 04/07/00 10:10	Received:	04/10/0	0 11:41					
Purgeable Hydrocarbons	ND	1000	ug/l	20	0D21001	04/21/00	04/21/00	DHS LUFT	
Benzene	85.3	10.0	r	и	rl	**	н	*	
Toluene	ND	10.0		н	**	11	:1	H	
Ethylbenzene	ND	10.0	a	"	*	и	¥I	't	
Xylenes (total)	ND	10.0	**	Ħ	*	u	**	"	
Methyl tert-butyl ether	283000	2500	47	1000)e	н	04/24/00		M-03
Surrogate: a,a,a-Trifluorotolue	ne	99.2 %	70	-130	**	11	04/21/00	"	





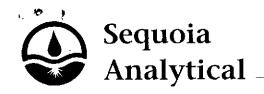
1680 Rogers Avenue San Jose CA, 95112 Project: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano Reported: 05/31/00 17:48

Diesel Hydrocarbons (C9-C24) by DHS LUFT

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MJD0243-01) Water	Sampled: 04/07/00 09:50	Received:	04/10/00	11:41	· <u>-</u>				
Diesel Range Hydrocarbons	ND	0.0500	mg/l	1	0D14009	04/14/00	04/17/00	DHS LUFT	
Surrogate: n-Pentacosane		109 %	50-	150	"	п	"	"	
MW-2 (MJD0243-02) Water	Sampled: 04/07/00 10:30	Received:	04/10/00	11:41					
Diesel Range Hydrocarbons	1.30	0.0500	mg/l	1	0D14009	04/14/00	04/17/00	DHS LUFT	D-15
Surrogate: n-Pentacosane		101 %	50-	150	"	"	"	"	
MW-3 (MJD0243-03) Water	Sampled: 04/07/00 10:10	Received:	04/10/00	11:41					
Diesel Range Hydrocarbons	0.264	0.0500	mg/l	1	0D14009	04/14/00	04/17/00	DHS LUFT	D-15
Surrogote: n-Pentacosane		107 %	50-	150	n ·	. "	W	"	



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: 105 5th St.

Project Number: 105 5th St.

Project Manager: Nick Sudano

Reported:

05/31/00 17:48

MTBE by EPA Method 8260A Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MJD0243-03) Water	Sampled: 04/07/00 10:10	Received:	04/10/00	11:41					H-02
Methyl tert-butyl ether	196000	10000	ug/l	10000	0E27001	05/26/00	05/26/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-	d4	98.3 %	70	-130	"	7	n	"	



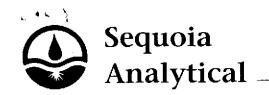
1680 Rogers Avenue San Jose CA, 95112 Project: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano Reported: 05/31/00 17:48

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 0D20003 - EPA 5030B [P/T]										
Blank (0D20003-BLK1)				Prepared	& Analyze	d: 04/20/0	00			
Purgeable Hydrocai bons	ND	50.0	ug/i							
Benzene	ND	0.500	"							
Foluene	ND	0.500	11							
Ethylbenzene	ND	0.500	**							
Kylenes (total)	ND	0.500	я							
Methyl tert-butyl other	ND	2.50	*							
urrogate: a,a,a-Trifluorotoluene	11.1		P+	10.0		111	70-130			
.CS (0D20093-BS1)				Prepared	& Analyze	d: 04/20/	90			
Benizene	11.8	0.500	սջ/1	10.0		118	70-130			
oluene	10.5	0.500	71	10.0		105	70-130			
thylbenzene	9.73	0.500	**	10.0		97.3	70-130			
Kylenes (total)	29.3	0.500	r	30.0	12	97.7	70-130			
Surrogate: a,a,a-l'rifluorotoluene	19.9		"	10.0		109	70-130			
Matrix Spike (0D20003-MS1)	Sc	ource: MJD02	24-13	Prepared	& Analyze	a: 04/20/0	00 .			
Benzene	11.6	0.500	ug/l	10.0	ND	116	60-140			
oiuene	10.1	0.500	12	10.0	ND	101	60-140			
Ethylbenzene	9.47	0.500	+1	16.0	ND	94.7	60-140			
(ylenes (total)	28.1	0.500	71	30.0	ND	93.1	60-140			
Surrogatz: a,a,a-Trifluorotoluene	10.4		"	10.0		104	70-130			
Matrix Spike Dup (0D20003-MSD1)	Sc	ource: MJD02	24-13	Prepared	& Analyze	d: 04/20/0	00			
Benzene	10.1	0.500	ug/l	10.0	ND	101	60-140	13 8	25	
Coluene	8.77	0.500	Ħ	10.0	ND	87.7	60-140	14.1	25	
Ethylbenzene	8.06	0.500	1.	10.0	ND	80.6	50-140	16.1	25	
(ylenes (total)	23.8	0.500	11	30.0	ND	79.3	60-140	16.6	25	
Surrogate: a,a,a-Trifluorotoluene	9.30		,,	10.0		93.0	70-130			





1680 Rogers Avenue San Jose CA, 95112 Project: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano Reported: 05/31/00 17:48

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 0D21901 - EPA 5030B [P/T]										
Blank (0D21001-BLK1)				Prepared	& Anaiyze	d: 04/21/0	00			
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	H							
oluene	ND	0.500	π.							
Ethylbenzene	ND	0.500	**							
(ylenes (total)	ND	0.560	11							
Methyl tert-butyl ether	ND	2.50	H							
urrogate: a,a,a-Trifluorotoluene	10.3		11	10.0		103	70-130			
CS (0D21001-BS1)				Prepared	& Analyze	d: 04/21/0	00			
urgeable Hydrocarbons	209	50.0	цg/)	250	31	83.6	70-130			
urrogate: a,a.a-Trifluwctoluene	10.5		77	10.0		105	70-130	•		
Matrix Spike (0D21001-MS1)	So	urce: MJD02	45-02	Prepared	04/21/00	Analyzed	: 04/22/00			
Purgeable Hydrocarbons	213	50.0	ug/l	250	ND	85.2	60-140			
urrogate: a,a,a-Trifluorotoluene	10.6		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10.0		106	70-130			
Matrix Spike Dup (0D21001-MSD1)	Sc	ource: MJD02	245-02	Prepared	04/21/00	Analyzed	i: 04/22/00	· ·		
Purgeable Hydrocarbons	217	50.0	ug/l	250	ND	86.8	60-140	1.86	25	
Surrogate: a,a,a-Trifluorotoluene	10 8		"	10.0		108	70-130			
Batch 0D24002 - EPA 5030B [P/T]								,		
Blank (0D24002-BLK1)				Prepared	& Analyz	ed. 04/24/	00			
Purgeable Hydrocarbons	ND	50.0	ug/i							
Benzene	ND	0.500	u							
Coluene	ND	0.500	н							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0,500	19							
Methyl tert-butyl ether	ND	2.50	Ħ							
Surrogate: a,a,a-Trifluorotoluene	10.1		"	10.0		101	70-130			



Reported:

RPD

S-0.2



Blaine Tech Services (Shell)

Surrogate: a,a,a-Trifluorotoluene

1680 Rogers Avenue San Jose CA, 95112 Project: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano

Reporting

14.5

05/31/00 17:48

%REC

70-130

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

Spike

10.0

Source

145

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0D24002 - EPA 5030B [P/T]				<u>.</u> .	· · · · ·					
LCS (0D24002-BS1)				Prepared	& Analyze	d: 04/24/0	0			
Purgeable Hydrocarbons	268	50.0	ug/l	250		107	70-130			





1680 Rogers Avenue San Jose CA, 95112 Project: 105 5th St.

Project Number: 105 5th St.

Project Manager: Nick Sudano

Reported:

05/31/00 17:48

Diesel Hydrocarbons (C9-C24) 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 0D14009 - EPA 3510B										<u>. </u>
Biank (0D14009-BLK1)				Prepared:	04/14/00	Analyzed	1: 04/17/00			
Diesel Range Hydrocarbons	ND	0.0500	mg/l							
Surrogate: n-Pentacosane	0.118		er .	0 100		118	50-150			
LCS (0D14009-BS1)				Prepared:	04/14/00	Analyzed	1: 04/17/00			
Diesel Range Hydrocarbons	0.836	0.0500	mg/l	1.00		83.6	60-140			
Surrogate: n-Pentacosane	0.107		#	0.100		107	50-150			
LCS Dup (0D14009-BSD1)				Prepared:	04/14/00	Analyzed	l- <mark>04/1</mark> 7/00			
Diesel Range Hydrocarbons	0.932	0 0500	ing/l	1.00		93.2	60-140	10.9	50	
Surrogate: n-Pentacosane	0.106		n	0.300		106	50-150			





Blaine Tech Services (Shell) 1680 Rogers Avenue

Surrogate: 1,2-Dichloroethane-d4

San Jose CA, 95112

Project: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano Reported: 05/31/00 17:48

MTBE 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 0E27001 - EPA 5030B [P/T]										·
Blank (0E27001-BLK1)				Prepared	& Analyze	ed: 05/26/0	00			
Methyl tert-butyl ether	ND	1.00	ug/l							

10.0

102

70-130

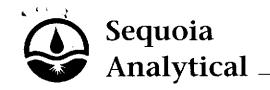
LCS (0E27001-BS1)		Prepared & Analyzed: 05/26/00								
Methyl tert-butyl ether	8.88	1.00	ug/l	10.0	88.8	70-130				
Surrogate 1,2-Dichloroethane-d4	9.87		н	10.0	98.7	70-130				
Matrix Spike (0E27001-MS1)	Sour	e: MJD04	31-03	Prepared & A	malyzed: 05/26/	′00				
Methyl tert-butyl etner	1830	100	ug/!	1000	569 116	70-130				

10.2

Surrogate: 1,2-Dichioroethane-d4	9.90		n	10.0		99.0	70-130			
Matrix Spike Dup (0E27001-MSD1)	Source	: MJD04	31-03	Prepared &	& Analyzed	: 05/26/	00			
Methyl tert-butyl other	1910	100	ug/l	1000	659 -	124	70-130	4.28	25	
Surrogate: 1,2-Dichloroethane-d4	10 1		it	10.6		101	70-130			







Relative Percent Difference

Blaine Tech Services (Shel!) 1680 Rogers Avenue

San Jose CA, 95112

RPD

Project: 105 5th St.

Project Number: 105 5th St. Project Manager: Nick Sudano Reported:

05/31/00 17:48

Notes and Definitions

D-15	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
H-02	This sample was analyzed outside of EPA recommended hold time.
H-04	The result reported for this analyte was generated out of hold time. It was originally run within hold time, but exceeded the linear range of the analysis.
M-03	Sample was analyzed at a second dilution per clients request.
P-01	Chromatogram Pattern: Gasoline C6-C12
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
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

BLA			10 OSE, CAI	LIFORI	DGERS AVE	-1105		cor	VDUC1	FANAL	YSIS 1	TO DE	TECT	ال SEQUOIA	L.		iDHS#			
TECH SE	RVICES	INC.	F	HONE	(408) 573- (408) 573-	-///1 -0555									T MEET SPECI DHS AND	FICATIONS AN	ND DETECTION LIMITS			
CHAIN OF CUS	STODY													⊠ EPA		□RWQ	CB REGION			
CLIENT	00040		······································	 		_	HS					10		☐ LIA ☐ OTHER	MIDO	243	3			
Equ SITE	<u> iva - K</u>	aren Pe	ступа			_	CONTAINERS				8260	801		SPECIAL INSTRUCT	IONS					
105	5th Str	eet					L CON				ì	by		Send invoic	e to Equiv	ra				
Oakl	Oakland, GA MATRIX CONTAINERS							nd, GA					diesel	s by			Incide	nt #989	95757	
						OSITE	hv 8020	1	die	nate	A &		Send report	to Blaine	: Tech Se	rvices				
			MAIHIX HSC FSC FSC FSC FSC FSC FSC FSC FSC FSC F	d CC	ONTAINERS	s	COMPOSITE PH = 836	- C-		1 #	Oxygenates	2-DCA		Attn:	Ann Pember	•				
SAMPLE I.D.	Dest	C Time	≰&.	TOTAL			00 = 0	<u> </u>	E	TPH	ő	1,		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #			
Mu-1	4-7	950	w	×	1 LA	-1	<u> </u>	X		X							1			
Mw·Z		1050	1	5			×	X		×				"Confirm 1	lichest		a			
Mw-3		1010	<u>L</u>	5	1		×	X		く		-		MTSE hit	-		_3			
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SAMPLING COMPLETED	DATE 4-7	IME	SAMPL PERFO	ING RMED	BY	rash	Kel	w 6	1	/	M			RESULTS NEEDED NO LATER THAN	Stand	X				
RELEASED BY	de l'		4)E	DATE		TIM			REC	EIVE	BY	1	01444	DATE	TIME			
RELEASED BY	1				JC	DATE,		TIMI	: ન્ય <u>∙</u> E	1	A REC	EIVE	D BY			4/10/00 DATE	9:40 TIME			
RELEASED BY	7N						100						(MH))		4/10/				
HETENOCH BY					10	ZATE		TIME	Ē		REC	EIVE	D BY			DATE	TIME			
SHIPPED VIA	***************************************					DATE S	ENT	TIMI	E SEN	т	COOL	ER#								
					ŀ															



Project # <u>oo</u>	0407-J	1	Date 4-7-00	Client	Equiva # 9899 575
Site 105	5 th	<u>St.</u>	Oakland.	cA.	

Well ID	Well Size (in.)	Sheen / Odor		Thickness of Immiscible Liquid (ft.)		•	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Clean TO Oilty
Mu-l	Lų					5.83	23.60	Toc	1
Mu-2	4					25.37			3
Mu-2	ાધ	. . *		_		5.91	24.90	1	2_
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<u>:</u>		•				Principal Annual Control of the Cont	en e		<u> </u>
	,								# management
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Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

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WELL MONITORING DATA SHEET

Project #	000	407 -3	31	Client: Equ	Client: Equiva # 98995757						
Sampler:	J.	Tosh		Start Date:	Start Date: 4 - 7 - 00						
Well I.D	.: ^	uu-1		Well Diameter: 2 3 4 6 8							
Total We	ell Depth:	53	.60	Depth to Water: 5.43							
Before:		After:		Before:	After:						
Depth to	Free Produ	uct:		Thickness of I	Thickness of Free Product (feet):						
Referenc	ed to:	(PVC)	Grade	D.O. Meter (if req'd): (SI) HACH							
	D Eie Other:	3	ible / np = 34.	Well Diamet	Disposable Bailer Extraction Port : ter Multiplier Well 0.16 5" 0.37 6"	Diameter Multiplier 1.02 1.47					
1 Case Volum Time	Temp (°F)	ecified Volum		olume	0 65 Othe						
		pН	Cond.	Turbidity	Gals. Removed	Observations					
945	64.8	5.4	90 Z	126	12	sdof					
947	65.2	6.3	499	>200	24	Turbid					
444	66.0	6.5	162	7200	36-	1					
						-					
Did well o	lewater?	Yes (No No	Gallons actuall	y evacuated:	37					
Sampling	Time:	910		Sampling Date:	4-7-0	5					
Sample I.I	D.:	Mu-	<u> </u>	Laboratory:	4-7-00 Sequoia						
Analyzed	for: (PH-C	BTEX)	MTBE (PH-D)	Other:	L .						
Equipmen	t Blank I.D	D.:	Time	Duplicate I.D.:							
Analyzed	for: трн-с) BTEX	MTBE TPH-D	Other:							
D.O. (if re	q'd):		Pre-purge:	ing _/	Post-purge:	ne ,					
ORP (if re	q'd):		Pre-purge:		Post-ourge:	A A STATE OF THE S					

WELL MONITORING DATA SHEET

Project #	: <u> </u>	940 7 -	<u> </u>	Client: Equive # 9899 5757						
Sampler:	708	4		Start Date:	4-7-00	¥111————				
Well I.D.	: <u> </u>	nu-2		Well Diameter: 2 3 4 6 8						
Total We	ll Depth:	٤3.4	L9	Depth to Wate	Depth to Water: 5.37					
Before:		After:		Before:		After:				
Depth to	Free Prodi	ıct:		Thickness of I	Free Product (fe	et):				
Reference	ed to:	Ø¢c)	Grade	D.O. Meter (if		YSI HACH				
Purge Method	D Ele Other: _(Gals.) X	Bailer isposable Bai Middleburg ctric Submers extraction Pun	ible / ip = <u>35.4</u>	Gals. Well Diame	Disposable Bailer Extraction Port	Diameter Multiplier 1.02 1.47 er radius ² * 0.163				
Time	Temp (°F)	pН	Cond.	Turbidity	Gals. Removed	Observations				
1023	67.9	6.8	599	173	12	odof				
1025	68.6	6.5	667	>200	7 4					
1627	68.9	45	585	7200	34-	19				
Did well o	lewater?	Yes (170	Gallons actuall	y evacuated:	J 6				
Sampling	Time:	1030		Sampling Date	: 4-7-00)				
Sample I.l	D.:	Mu-Z		Laboratory:	Scanoia					
Analyzed	for: (TPH-	GETEY	MTBE (PH-D)	Other:						
Equipmen	t Blank I.I	D.:	(<u>@</u> Time	Duplicate I.D.:						
Analyzed	for: TPH-) BTEX	MTBE TPH-D	Other:						
D.O. (if re	<u>a'a'):</u>		Pre-purge:	Ø.4 mg,	Post-purge:	Ø.2 "",				
	call:		Pre-nurge:	aı Ŷ	ost-binde:	'nV				

WELL MONITORING DATA SHEET

Project #	#: 000	407-J	1	Client: Equiva # 9899 5757							
Sampler	Tos	۲		Start Date:	4-7-00						
Well I.D).:	~-3		Well Diameter: 2 3 4 6 8							
Total W	ell Depth:	24.9	.0	Depth to Wate	er: ' 6.91						
Before:		After:		Before: After:							
Depth to	Free Prod	uct:		Thickness of Free Product (feet):							
Referenc	ed to:	PVC	Grade	D.O. Meter (if req'd): (YSI) HACH							
Purge Meth	.£ Ele Other: _(Gals.) X	Bailer Disposable Bai Middleburg ectric Submers extraction Pun confidence Volum	sible	Well Diamet 2" 3"	Disposable Bailer Extraction Port	iameter <u>Multiplier</u> 1.02 1.47 radius ² • 9 163					
Time	Temp (°F)	pН	Cond.	Turbidity	Gals. Removed	Observations					
1005	64.0	6.4	896	7200	13						
1007	64.3	6.6	852	7200	26	Jubig					
1008	65.1	6.5	861	7700	38	上					
Did well o	dewater?	Yes (No)	Gallons actuall	y evacuated:	38					
Sampling	Time:	1010		Sampling Date:	4-7-00						
Sample I.I	D.:	Mus		Laboratory:	Segnoia						
Analyzed	for: (TPH-C	BIED	MTBE) (PH-D	Other:							
Equipmen	t Blank I.E).: 	<i>'@</i> ™e	Duplicate I.D.:							
Analyzed	for: трн-с	BTEX :	MTBE TPH-D	Other:							
0.0. (if re	q'd):		Pre-purge:	Ø.4 ""/L	Post-purge:	mc,					
20 H.C	q'd):		Pre-purge:	ηV	gost-bathe:	mir'					