

# **TOXICHEM**Management Systems, Inc.

**Environmental & Occupational Health Services** 

1461 Newport Avenue San Jose, California 95125 (408) 292-3266 / Fax (408) 298-6591 Exposure Assessment/Estimation

E. F. R. O. T. E. C. T. I. O. M. Industrial Hygiene

Regulatory Compliance Programs

99 JAN 32 PM L: Rep Property Environmental Assessments

Compliance Audits

Air Pollution Dispersion Modeling Hazardous Waste Management Air Sampling and Analysis

January 28, 1999 Project EQ-02.1A

Mr. Barney M. Chan Alameda County Health Care Services Agency Environmental Protection Division 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: Quarterly Monitoring Report - Fourth Quarter 1998

Former Texaco Service Station 3810 Broadway, Oakland, California

Dear Mr. Chan:

On behalf of Equiva Services LLC (Equiva), this letter transmits the results of fourth quarter 1998 groundwater monitoring and sampling conducted at the site referenced above. Equiva is managing the subject site on behalf of Texaco, Inc.

If you have any questions regarding this site, please contact me at your convenience at (415) 681-8816.

Sincerely,

Toxichem Management Systems, Inc.

Keith Winemiller, P.E. Senior Engineer

Enclosure

cc: Ms. Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, CA 90749-6249 Mr. G. Friedkin, Friedkin-Becker, 300 Grand Avenue, Oakland, CA 94610



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

February 16, 2000

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

> Fourth Quarter 1999 Groundwater Monitoring at Former Texaco Service Station 3800 Broadway Oakland, CA

> Monitoring performed on December 29, 1999 & January 7, 2000

#### Groundwater Monitoring Report 991229-U-2

This report covers the routine monitoring of groundwater wells at this Former Texaco 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/jh

attachments: Cumulative Table of WELL CONCENTRATIONS

Certified Analytical Report

Field Data Sheets

cc: Keith Winemiller

Toxichem Management Systems, Inc.

1562 44<sup>th</sup> Avenue

San Francisco, CA 94122

#### **WELL CONCENTRATIONS**

# Former Texaco Service Station 3800 Broadway

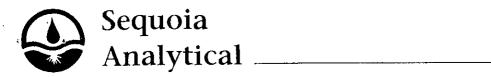
#### Oakland, CA

								MTBE	MTBE		Depth to	Depth to	GW	SPH	D.O.
Well ID	Date	TPPH	TEPH	В	T	E	X	8020	8260	TOC	Water	SPH	Elevation	Thickness	Readings
		(ug/L)	(MSL)	(ft.)	(ft.)	(MSL)	(ft.)	(ft.)							

#### Notes:

<sup>\*</sup> Free product could not be accurately measured (>2.0 feet of product in well).

<sup>\*\*</sup> MTBE confirmation by 8240.



January 19, 2000

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

RE Equiva 3800 Broadway, Oakland/M912999

Dear Leah Davis

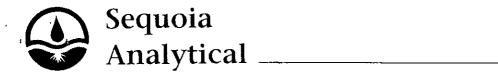
Enclosed are the results of analyses for sample(s) received by the laboratory on December 29, 1999. If you have any questions concerning this report, please feel free to contact me

Sincerely,

Kayvan Kımyaı

Project Manager D M.

CA ELAP Certificate Number 1210



Blaine Tech Services (Shell)	Project.	Equiva	Sampled:	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received:	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported	1/19/00

#### **ANALYTICAL REPORT FOR M912999**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-4	M912999-01	Water	1/10/00
MW-4	M912999-01	Water	12/29/99
MW-6	M912999-02	Water	1/10/00
MW-6	M912999-02	Water	12/29/99
MW-7	M912999-03	Water	1/10/00
MW-7	M912999-03	Water	12/29/99
MW-9	M912999-04	Water	1/10/00
MW-9	M912999-04	Water	12/29/99
MW-10	M912999-05	Water	1/10/00
MW-10	M912999-05	Water	12/29/99





Blaine Tech Services (Shell)	Project	Equiva	Sampled:	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received.	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported.	1/19/00

#### Diesel Hydrocarbons (C9-C24) by DHS LUFT Sequoia Analytical - Morgan Hill

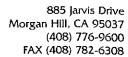
Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4 Diesel Range Hydrocarbons Surrogate n-Pentacosane	0010297	1/11/00	<b>M9129</b> 1/14/00 "	99-01 50 0-150	0 0500	<b>0.169</b> /0/	<u>Water</u> mg/l %	1
MW-6 Diesel Range Hydrocarbons Surrogate n-Pentacosane	0010297 "	1/11/00	<u>M9129</u> 1/14/00 "	99-02 50 0-150	0 0500	1.48 100	Water mg/l %	1
MW-7 Diesel Range Hydrocarbons Surrogate n-Pentacosanc	0010297 "	1/11/00	<u>M9129</u> 1/14/00 "	99-03 50 0-150	0.0500	<b>0.0990</b> 95 4	Water mg/l %	1
MW-9 Diesel Range Hydrocarbons Surrogate n-Pentacosare	0010297 "	1/11/00	<u>M91299</u> 1/14/00 "	50 0-150	0 0500	0.0528 948	Water mg/l %	1
MW-10 Diesel Range Hydrocarbons Surrogate n-Pentacosane	0010297 "	1/11/00	<b>M9129</b> 9 1/14/00 "	<b>99-05</b> 50 0-150	0 0500	<b>0.107</b> 9~ 8	<u>Water</u> mg/l %	1



Blaine Tech Services (Shell)	Project	Equiva	Sampled.	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received:	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported:	1/19/00

#### Total Metals by EPA 6000/7000 Series Methods Sequoia Analytical - Morgan Hill

Analyte	Bateh Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u> MW-6</u>			M9129	99-0 <u>2</u>			Water	
Ferrous Iron	0010159	1/3/00	1-5/00	EPA 6010A	0 0100	2.30	mg/l	
<u>MW-7</u>			M91299	99-03			Water	
Ferrous Iron	0010159	1/3/00	1/5/00	EPA 6010A	0 0100	0.0108	mg/l	
<u>MW-9</u>			M91299	99-04			<u>Water</u>	
Ferrous Iron	0010159	1/3/00	1/5/00	EPA 6010A	00100	0.0200	mg/l	

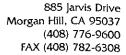




Blaine Tech Services (Shell)	Project.	Equiva	Sampled:	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received:	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported.	1/19/00

#### Anions by EPA Method 300.0 Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-6</u>			M9129	99-02			Water	
Nitrate as NO3	0010076	12/30/99	12/30/99	EPA 300.0	1.00	ND	mg/l	D
Sulfate as SO4	**	17	**	EPA 300.0	5 00	ND	n Č	D
MW-7			M91299	99-03			Water	
Nitrate as NO3	0010076	12/30/99	12/30/99	EPA 300 0	1.00	22.3	mg/l	D
Sulfate as SO4	"	0	"	EPA 300 0	5 00	27.1	"	D
MW-9			M91299	99-04			Water	
Nitrate as NO3	0010076	12/30/99	12/30/99	EPA 300 0	1 00	4.81	mg/l	D
Sulfate as SO4	U	ч	P	EPA 300 0	5 00	29.5	1)	D



Project: Equiva

Project Manager: Leah Davis

Project Number. 3800 Broadway, Oakland

Sampled: 12/29/99 to 1/10/00

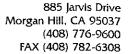
Received: 12/29/99
Reported: 1/19/00

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - San Carlos

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
MW-4			M9129	00 01			Water	
Purgeable Hydrocarbons as Gasoline	0010042	1/10/00	1/10/00	<del>//~01</del>	50.0	ND	ug/l	
Benzene	"	17 10700	"		0 500	ND	ng/i	
Toluene	,,	н	,,		0 500	ND	п	
Ethylbenzene	,,	n			0 500	ND	"	
Xylenes (total)	o	n	H		0 500	ND	н	
Methyl tert-butyl ether	10	U	**		5 00	ND	19	
-	"	"	,,	70 0-130	3 00			
Surrogate a.a.a-Frifluorotoluene				70 0-130		110	%	
<u>MW-6</u>			M91299	99-02			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0010049	1/11/00	1/11/00		5000	14700	ug/l	2,D
Benzene	14	n	"		50 0	2790	н	D
Toluene	**	O .	*		50.0	974	**	D
Ethylbenzene	n .	0	•		50.0	469	n	Ď
Xvlenes (total)	n		a		50 0	1720	п	D
Methyl tert-butyl ether	n	**	п		500	ND	н	D
Surrogate a.a.a-Fryfluorotoluene	"	•	"	70 0-130	244	111	%	
MW-7			M91299	9-03			Water	
Purgeable Hydrocarbons as Gasoline	0010049	1/11/00	1/11/00	<u> </u>	50 0	ND	ug/l	
Benzene	"	"	"		0.500	ND	ug/i	
Foluene	н	n .	u		0.500	ND	н	
Ethylbenzene	н	п	11		0 500	ND	"	
Xylenes (total)	ıı.	,,	11		0 500	ND	**	
Methyl tert-butyl ether	10	**	"		5 00	ND ND	10	
Surrogate a,a a-Trifluorotoluene	n	"	и	70 0-130	3 00	87 <i>4</i>	%	
an rogate a.a a-rryian oronache				70 0-750		07 4	70	
<u>VIW-9</u>			M91299	<u> 19-04</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0010049	1/11/00	1.11/00		50 0	ND	ug/l	
Benzene	0	11	"		0 500	ND	"	
Foluene	0	н	"		0 500	ND	"	
Ethylbenzene	H	**	n		0.500	ND	18	
Xylenes (total)	n .	0	17		0 500	ND	и	
Methyl tert-butyl ether	n	10	tr .		5.00	ND	н	
Surrogate, a.a.a-Fryfluorotoluene	**	"	u	70 0-130		101	%	
MW-10			M91299	9-05			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0010049	1/11/00	1/11/00		50.0	114	ug/l	3
Benzene	h	••	"		0.500	9.03	"	-
Foluene	н	o	U		0.500	ND	н	
Ethylbenzene	n	11	a.		0.500	0.531	n	
	0	11			0.500	0.551		

Sequoia Analytical - Morgan Hill

<sup>\*</sup>Refer to end of report for text of notes and definitions.





Blaine Tech Services (Shell) 1680 Rogers Avenue

San Jose, CA 95112

Project: Equiva

3800 Broadway, Oakland

Received:

Sampled. 12/29/99 to 1/10/00 12/29/99

Project Manager Leah Davis

Project Number:

Reported 1/19/00

#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - San Carlos

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-10 (continued)			M9129	<u>99-05</u>			<u>Water</u>	
Methyl tert-butyl ether	0010049	1/11/00	1/11/00		5 00	ND	ug/l	
Surrogate a,a,a-Trifluorotoluene	"	"	"	70 0-130		817	%	



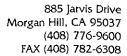
Blaine Fech Services (Shell)	Project <sup>.</sup>	Equiva	Sampled.	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number.	3800 Broadway, Oakland	Received	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported	1/19/00

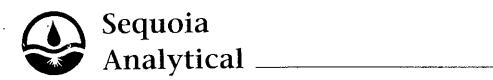
#### Diesel Hydrocarbons (C9-C24) by DHS LUFT/Quality Control Sequoia Analytical - Morgan Hill

	Date	Spike	Sample	QC		Reporting Limit	Recov	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov Limits	%	Limit	%	Notes*
Batch: 0010297 Blank	<u>Date Prepa</u> 0010297-B		<u>00</u>		Extra	ction Method: EP	<u>4 3520B</u>			
Diesel Range Hydrocarbons	1/14/00			ND	mg/l	0.0500				
Surrogate n-Pentacosane	"	0 100		0 0952	"	50 0-150	95 2			
LCS	0010297-B	<u>S1</u>								
Diesel Range Hydrocarbons	1/14/00	1 00		0.816	mg/l	60.0-140	81.6			
Surrogate n-Pentacosane	"	0 100		0 0922	"	50 0-150	92 2			
LCS Dup	0010297-B	SD1								
Diesel Range Hydrocarbons	1/14/00	1 00		0 924	mg/l	60 0-140	92.4	50.0	124	
Surrogate n-Pentacosane	n	0 100		0 101	"	50 0-150	101			



Sequoia Analytical - Morgan Hill





Blaine Tech Services (Shell)	Project	Equiva	Sampled:	12/29/99 to 1/10/00
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San Jose, CA 95112	Project Manager	Leah Davis	Reported	1/19/00

#### Total Metals by EPA 6000/7000 Series Methods/Quality Control Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov Limits	Recov %	RPD Limit	RPD %	Notes*
Batch: 0010159 Blank	Date Prepar		!		<u>Extrac</u>	tion Method: EP	<u> 4 3020A</u>			
Ferrous Iron	1/5/00	<u>K1</u>		ND	mg/l	0.0100				
LCS Ferrous Iron	0010159-BS 1/5/00	<u>1</u> 1 00		1 00	mg/l	80 0-120	100			
Matrix Spike Ferrous Iron	<u>0010159-MS</u> 1/5/00	1.00	2AAH-03 0 200	1 20	mg/l	80 0-120	100			
Matrix Spike Dup Ferrous Iron	0010159-MS 1/5/00	1 00	2AAH-03 0 200	1 20	mg/l	80 0-120	100	20 0	0	



Blame Tech Services (Shell)	Project	Equiva	Sampled	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received.	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported	1/19/00

#### Anions by EPA Method 300.0/Quality Control Sequoia Analytical - Morgan Hill

	Date	Spike	Sample	QC		Reporting Limit	Recov	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov Limits	%	Limit	%	Notes*
Batch: 0010076	Date Prepar	ed: 12/30	/99		Extra	ction Method: Ger	neral Pre	paration		
Blank	<u>0010076-BL</u>	<u>.K1</u>					- "			
Nitrate as NO3	12/30/99			ND	mg/l	0.100				
Sulfate as SO4	· ·			ND	11	0.500				
LCS	0010076-BS	1								
Nitrate as NO3	12/30/99	10 0		9 83	mg/l	80 0-120	98.3			
Sulfate as SO4	li .	10 0		9 67	"	80 0-120	96 7			
Matrix Spike	0010076-MS	81 M9	12AAJ-15							
Nitrate as NO3	12/30/99	100	6.81	106	mg/l	75 0-125	99.2			
Sulfate as SO4	II .	100	28 7	131	н	75 0-125	102			
Matrix Spike Dup	0010076-MS	SD1 M9	12AAJ-15							
Nitrate as NO3	12/30/99	100	681	106	mg/l	75 0-125	99.2	20 0	0	
Sulfate as SO4	(i	100	28 7	130	"	75 0-125	101	20 0	0.985	



Blame Tech Services (Shell) Project: Equiva Sampled: 12/29/99 to 1/10/00 1680 Rogers Avenue Project Number: 3800 Broadway, Oakland Received: 12/29/99

San Jose, CA 95112 Project Manager Leah Davis Reported 1/19/00

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

	Date	Spike	Sample	QC	<del></del>	Reporting Limit	Recov	RPD	RPD
Analyte	Analyzed	Level	Result	Result	Units	Recov Limits	%	Limit	% Notes*
Batch: 0010042	<u>Date Prepa</u>		<u>10</u>		<u>Extract</u>	ion Method: EP	4 5030B	[P/T]	
Blank	0010042-B	<u>LKI</u>							
Purgeable Hydrocarbons as Gasoline	1/10/00			ND	ug/l	50.0			
Benzene	н			ND	11	0.500			
Toluene	"			ND	11	0.500			
Ethylbenzene	1)			ND	п	0.500			
Xylenes (total)	a a			ND	и	0.500			
Methyl tert-butyl ether	14			ND	"	5.00			
Surrogate a,a,a-Frifluorotoluene	"	10 0		10 1	"	70 0-130	101		
<u>LCS</u>	0010042-B5	<u>81</u>							
Benzene	1/10/00	10.0		8 63	ug/l	70 0-130	86.3		
Toluene	"	10 0		8.51	ar -	70 0-130	85.1		
Ethylbenzene	и	10 0		8.75	If	70.0-130	87.5		
Xylenes (total)	n	30 0		26 0	п	70.0-130	86.7		
Surrogate a.a.a-Trifluorotoluene	"	10.0		10 3	"	70 0-130	103		
LCS	0010042-B5	<u>52</u>							
Purgeable Hydrocarbons as Gasotine	1/10/00	250		208	ug/l	70 0-130	83 2		
Surrogate a.a.a-11 tiluorotoluene	"	10 0		9 86	"	70 0-130	98 6		
Matrix Spike	0010042-M	<u>S1 M9</u>	12999-01						
Purgeable Hydrocarbons as Gasoline	1/10/00	250	ND	243	ug/l	60 0-140	97.2		
Surrogate a.a.a-Frifluorotoluene	n	10 0		9 92	,,_	70 0-130	99 2		
Matrix Spike Dup	0010042-M	<u>SD1 M9</u>	12999-01						
Purgeable Hydrocarbons as Gasotine	1/10/00	250	ND	242	ug/l	60 0-140	96.8	25.0	0.412
Surrogate a.a.a-Irifluorotoluene	"	10 0		9 60	,,	70 0-130	96 0		
Batch: 0010049	Date Prepa	red: 1/11/0	<u>0</u>		Extract	ion Method: EPA	₹ 5030B	(P/T)	
Blank	0010049-BI	<u>√K1</u>							
Purgeable Hydrocarbons as Gasoline	1/11/00			ND	ug/l	50.0			
Benzene	u .		•	ND	и	0.500			
foluene	D			ND	н	0.500			
Ethylbenzene	16			ND	,"	0.500			
Xylenes (total)	H			ND	`"	0.500			
Methyl tert-butyl ether	n			ND	"	5.00			
Surrogate a,a,a-Trifluorotoluene	н	10.0		10 4	n	70 0-130	104		
LCS	0010049-BS	<u> </u>							
Benzene	1/11/00	10.0		8.85	ug/l	70 0-130	88 5		

Sequoia Analytical - Morgan Hill

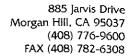
\*Refer to end of report for text of notes and definitions.



Blaine Tech Services (Shell)	Project.	Equiva	Sampled.	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported	1/19/00

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - San Carlos

	Date	Spike	Sample	QC		Reporting Limit	Recov	RPD	RPD	
Analyte	Analy zed	Level	Result	Result	Units	Recov Limits	%	Limit	%	Notes*
LCS (continued)	0010049-BS	S1								
Ethylbenzene	1/11/00	10 0		9 02	ug/l	70 0-130	90.2			
Xylenes (total)	"	30 0		26.7	**	70.0-130	89 0			
Surrogate a,a,a-Trifluorotoluene	"	10 0		10 5	"	70 0-130	105			
LCS	0010049-BS	<u>52</u>								
Purgeable Hydrocarbons as Gasoline	1/11/00	250		243	ug/l	70 0-130	97.2			
Surrogate a,a,a-Frifluorotoluene	n	10 0		10 4	,,	70 0-130	104			
Matrix Spike	<u>0010049-M</u>	<u>S1 M9</u>	12999-04							
Benzene	1/11/00	10.0	ND	8 50	ug/l	60.0-140	85.0			
Toluene	19	10.0	ND	8.28	"	60 0-140	82.8			
Ethylbenzene	10	10.0	ND	8 60	11	60 0-140	86.0			
Xylenes (total)	IF	30.0	ND	25 5	11	60.0-140	85.0			
Surrogate, a,a,a-Frifluorotoluene	n .	10 0		8 57	н	70 0-130	85 7			
Matrix Spike Dup	0010049-M	<u>SD1 M9</u>	12999-04							
Benzene	1/11/00	10 0	ND	7 34	ug/l	60 0-140	73.4	25 0	14.6	
Toluene	**	10.0	ND	7 17	"	60 0-140	71.7	25 0	14.4	
Ethylbenzene	10	10.0	ND	7 29	п	60 0-140	72.9	25.0	16.5	
Xylenes (total)	п	30 0	ND	21.8	"	60 0-140	72.7	25.0	15.6	
Surrogate a a.a-Trifluorotoluene	"	10.0		9 39	н	70 0-130	939			





Blaine Tech Services (Shell)	Project.	Equiva	Sampled:	12/29/99 to 1/10/00
1680 Rogers Avenue	Project Number	3800 Broadway, Oakland	Received.	12/29/99
San Jose, CA 95112	Project Manager	Leah Davis	Reported	1/19/00

#### Notes and Definitions

#	Note
D	Data reported from a dilution.
1	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
2	Chromatogram Pattern, Gasoline C6-C12
3	Chromatogram Pattern Unidentified Hydrocarbons C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
Jry	Sample results reported on a dry weight basis
Recov	Recovery
RPD	Relative Percent Difference

	15		CONDL	ICT AN	ALYSIS	TO DE	TECT		ıi AR
BLAINE SAN JOSE, CALIFORNIA 95112-110 TECH SERVICES INC. PHONE (408) 573-055  CHAIN OF CUSTODY  CLIENT  Equiva - Karen Petrvna  SITE 3800 Broadway  Oakland, CA  991229-112  MATRIX CONTAINERS  ON SAMPLE I.D  MW-6  14:45  MW-7  MW-9  12:55  MW-9  MW-10  12:71  MW-10  MW-10	)5 '1	X TPH - gas, BTEX	MTBE by	CT AND OCOOL	Oxygenates by 8260	EDB by 8010	XX Mitrate Sulfato	Ferrouc Iron	Incident # 93995026 ''' ?7
SAMPLING DATE TIME SAMPLING PERFORMED BY SQN.  PELEASED BY DATE  PELEASED BY DATE  SHIPPED VIA  DATE  DATE  DATE  DATE	- 54	] т [т:	IME  16:11  ME  ME  ME SEN		•		BY	) NO 2	DESULTS NEEDED TO LATER THAN  DATE  12-39/160  DATE  TIME  12/19/7/7  DATE  TIME  17/19/17/19/17/19/19/19/19/19/19/19/19/19/19/19/19/19/



January 21, 2000

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

RE: Equiva 3800 Broadway. Oakland/M912ABI

Dear Leah Davis

Enclosed are the results of analyses for sample(s) received by the laboratory on December 30, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kayvan Kunyai

Project Manager D.M.

CA ELAP Certificate Number 1210





Project: Equiva
Project Number: 3800 Broadway

Sampled: 12/30/99 Received: 12/30/99

Project Manager: Leah Davis Reported: 1/21/00

#### ANALYTICAL REPORT FOR M912ABI

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW·I	M912ABI-01	Water	12/30/99
MW-5	M912ABI-02	Water	12/30/99





Project: Equiva
Project Number 3800 Broadway
Project Manager. Leah Davis

Sampled: 12/30/99 Received: 12/30/99 Reported: 1/21/00

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

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
<u>MW-1</u>			<u>M912A</u> 1	<u>BI-01</u>			Water	
Purgeable Hydrocarbons	0010152	1/6/00	1/6/00		50.0	117	ug/l	1
Benzene	11	ш	19		0.500	4.26	"	
Toluene	*1	п	и		0.500	ND	It	
Ethylbenzene	Ħ	#1	10		0.500	ND	11	
Xylenes (total)	ti .	н	"		0.500	1.97	11	
Methyl tert-butyl ether	H	11	II.		2.50	26.2	п	
Surrogate: a,a,a-Trifluorotoiuene	u	"	·,	70.0-130		III	%	
MW-5			M912A	BI-02			Water	
Purgeable Hydrocarbons	0010151	1/6/00	1/6/00		100	896	ug/1	1,D
Benzene	II	11	II.		1.00	16.6	q	D
Toluene	н	н	11		1.00	1.48	μ	D
Ethylbenzene	If .	u	58		1.00	8.92	11	Ð
Xylenes (rotal)	11	ur .	n		1.00	2.67	11	D
Methyl tert-butyl other	P	ŧ	11		5.00	61.1	+1	D
Surrogate a,a,a-Trifluorotolvene	u	n	н ,	70.0-130		102	%	





Blaine Tech Services (Shell)	Project.	Equiva	Sampled:	12/30/99
1680 Rogers Avenue	Project Number:	3800 Broadway	Received:	12/30/99
San Jose, CA 95112	Project Manager:	Leah Davis	Reported:	1/21/00

#### Diesel Hydrocarbons (C9-C24) by DHS LUFT Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-1</u>			M912A	BI-01			Water	
Diesel Range Hydrocarbons	0010312	1/12/00	1/13/00		0.0500	0.345	mg/l	2
Surrogate: n-Pentacosane	11	<i>n</i>	H	50.0-150		95.6	%	-
<u>MW-5</u>			M912A	<u>BI-02</u>			<u>Water</u>	
Diesel Range Hydrocarbons	0010312	1/12/00	1/13/00	<del></del>	0.0500	0.173	mg/l	
Surrogate: n-Pentacosane	"	,,	"	50.0-150		93.4	%	





Project: Equiva

Project Manager:\_Leah Davis

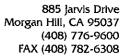
Project Number: 3800 Broadway

Sampled: 12/30/99 Received: 12/30/99

Reported: 1/21/00

#### MTBE by EPA Method 8260A Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1 Methyl tert-butyl ether Surrogate: 1,2-Dichloroethane-d4	0010549	1/18/00	M912A 1/18/00	BI-01 70.0-130	0.500	<u>ND</u> _	Water ug/l %	3
MW-5 Methyl tert-butyl ether Surrogate. 1,2-Dichloroethane-d4	0010549 "	1/18/00	<u>M912A</u> 1/19/00 "	BI-02 70 0-130	0.500	ND 	Water ug/l %	<u>3</u>





Blaine Tech Services (Shell)
Project: Equiva
Sampled: 12/30/99
1680 Rogers Avenue
Project Number: 3800 Broadway
Received: 12/30/99
San Jose, CA 95112
Project Manager: Leah Davis
Reported: 1/21/00

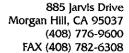
# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequoia Analytical - Morgan Hill

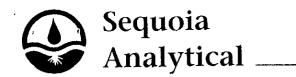
	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD						
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% l	Notes*					
Batch: 0010151	Date Prepar	red: 1/6/00	)		Extraction Method: EPA 5030B [P/T]										
Blank	0010151-BI		-					<u> </u>							
Purgeable Hydrocarbons	1/6/00			ND	ug/l	50.0									
Benzene	11			ND	11	0.300									
oluene	II.			ND	et .	0.300									
Ethylbenzene	*1			ND		0.300									
Xylenes (total)	4			ND	H	0.500									
Methyl tert-butyl ether	ŧ			ND	n	2.50									
Surrogate: a,a,a-Trifluorotoluene	n-	100		971		70.0-130	97.1			-					
LCS	0010151-BS	£1													
Purgeable Hydrocarbons	1/6/00	250		228	ug/l	70.0-130	91.2								
	170700 ii	10.0		9.12	··· i	70.0-130	$\frac{91.2}{91.2}$								
urrogate: a.a.a-Trifluorotoluene		10.0		9.12		70.0-130	91.2								
Matrix Spike	0010151-M		001049-05	226		(0.0.140	04.4								
Purgeable Hydrocarbons	1/6/00	250	ND	236	ug/l	60.0-140	94.4								
Surrogate. a,a,a-Trifluorotoluene	"	10.0		9.00		70.0-130	90 0								
Matrix Spike Dup	<u>0010151-M</u>		001049-05												
urgeable Hydrocarbons	1/6/00	250	ND	226	ug/l	60.0-140	90.4	25.0	4.33						
Surrogate <sup>+</sup> a,a,a-Trifluorotoluene	"	10.0		8.65	11	70.0-130	86.5								
Batch: 0010152	Date Prepar		<u>)</u>		<u>Extrac</u>	tion Method: EP	A 5030B	[P/T]							
<u>Blank</u>	<u>0010152-BI</u>	<u>.K1</u>													
Purgeable Hydrocarbons	1/6/00			ND	ug/l	50.0									
Benzene	10			ND	I †	0.500									
Foluene	11			ND	I <b>†</b>	0.500									
Ethylbenzene	11			ND	11	0.500									
Kylenes (total)	91			ND	11	0.500									
Methyl tert-butyl ether	q			ND	11	2.50									
Surrogate: a,a,a-Trifluorotoluene	"	100		10 1	"	70.0-130	101								
<u>LCS</u>	0010152-BS	51													
Purgeable Hydrocarbons	1/6/00	250		254	ug/l	70.0-130	102								
Surrogate. a,a,a-Trifluorotoluene	"	10.0		13.9	"	70.0-130	139	÷		4					
Matrix Spike	0010152-M	S1 M91	2ABQ-01												
Purgeable Hydrocarbons	1/6/00	250	ND	261	ug/l	60.0-140	104								
Surrogate: a,a,a-Trifluorotoluene	"	10.0		13.7	"	70 0-130	137			4					
Matrix Spike Dup	0010152-M	SD1 M91	2ABQ-01												
Purgeable Hydrocarbons	1/6/00	250	ND	267	ug/l	60.0-140	107	25.0	2.84						
argentic rryarocarbons	170700	200	,,,,	407	~ <i>\text{\tint{\text{\tin}\text{\ti}\}\text{\tex{\tex</i>	00.0 140	10.	-5.0	2.07						

Sequoia Analytical - Morgan Hill

\*Refer to end of report for text of notes and definitions.







Project: Equiva

Project Number: 3800 Broadway Project Manager: Leah Davis

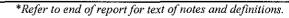
Sampled: 12/30/99

Received: 12/30/99 Reported: 1/21/00

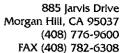
#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control Sequola Analytical - Morgan Hill

	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%_	Limit	%	Notes*
Matrix Spike Dup (continued) Swrogate: a,a,a-Trifluorotoluene	0010152-M 1/6/00	SD1 <u>M9</u> 1	12ABQ-01	13.9	ug/l	70.0-130	139			4





Sequoia Analytical - Morgan Hill





Project Manager. Leah Davis

Project: Equiva

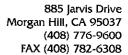
Project Number 3800 Broadway

Sampled: 12/30/99

Received: 12/30/99 Reported: 1/21/00

#### Diesel Hydrocarbons (C9-C24) by DHS LUFT/Quality Control Sequoia Analytical Morgan Hill

	Date	Spike	Sample	QC		Reporting Limit	Recov	RPD	RPD
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% Notes*
Batch: 0010312 Blank	<u>Date Prepa</u> 0010312-Bl		<u>00</u>		<u>Extra</u>	ction Method: EP	A 3510B		
Diesel Range Hydrocarbons	1/13/00			ND	mg/l	0.0500			
Surrogate: n-Pentacosane	"	0 100		0.0776	,, -	50.0-150	77.6		
LCS	0010312-BS	<u> </u>							
Diesel Range Hydrocarbons	1/13/00	1.00		0.779	mg/l	60.0-140	77.9		
Surrogate: n-Pentacosane	"	0.100		0.0854	"	50.0-150	85.4		
LCS Dup	0010312-BS	<u>SD1</u>							
Diesel Range Hydrocarbons	1/13/00	1.00		0.729	mg/l	60.0-140	72.9	50.0	6.63
Surrogate. n-Pentacosane	"	0.100		0.0860	"	50.0-150	86.0		





Project: Equiva

Project Manager: Leah Davis

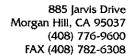
Project Number: 3800 Broadway

Sampled: 12/30/99

Received: 12/30/99 Reported: 1/21/00

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

	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
Batch: 0010549	Date Prepa	red: 1/18/0	<u>0</u>		Extrac	tion Method: EP	A 5030B	[P/T]		
<u>Blank</u>	<u>0010549-Bl</u>	<u>.K1</u>								
Methyl tert-butyl ether	1/18/00			ND	ug/l	0.500				
Surrogate 1,2-Dichloroethane-d4	"	10.0		12.1	"	70.0-130	121			
Blank	0010549-BI	LK2								
Methyl tert-butyl ether	1/19/00			ND	ug/l	0.500				
Surrogate: 1,2-Dichloroethane-d4	"	10.0		11.6	"	70 0-130	116			
LCS	0010549-BS	<u>81</u>								
Methyl tert-butyl ether	1/18/00	10.0		10.3	ug/l	70.0-130	103			
Surrogate: 1,2-Dichloroethane-d4	"	10.0		12.5	,,	70.0-130	125			
LCS	0010549-BS	<u>52</u>								
Methyl tert-butyl ether	1/19/00	10.0		9.95	ug/l	70.0-130	99.5			
Surrogate: 1,2-Dichloroethane-d4	"	10.0		129		70.0-130	129			
Matrix Spike	0010549- <u>M</u>	<u>S1 M(</u>	001089-04							
Methyl tert-butyl ether	1/18/00	5000	8670	13500	ug/l	70.0-130	96.6			D
Surrogate. 1,2-Dichloroethane-d4	"	10.0		12 2	"	70.0-130	122	-	-	
Matrix Spike Dup	0010549-M	SD1 MO	001089-04							
Methyl tert-butyl ether	1/18/00	5000	8670	13100	ug/l	70.0-130	88.6	25.0	8.64	Ð
Surrogate: 1.2-Dichloroethane-d4	n	10.0		11.3	"	70 0-130	113			





Blaine Tech Services (Shell)
Project: Equiva
Sampled: 12/30/99
1680 Rogers Avenue
Project Number: 3800 Broadway
Received: 12/30/99
San Jose, CA 95112
Project Manager: Leah Davis
Reported: 1/21/00

#### **Notes and Definitions**

#	Note
D	Data reported from a dilution.
1	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
2	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
3	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
4	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
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

	CALIFORNIA 95172-170	5	CO	NDUCT	FANAL	YSIS T	DETEC.	T	LIAR SPA
ECH SERVICES NC.  CHAIN OF CUSTODY  LIENT  Equiva - Karen Petry  TE 3800 Broadway  Oakland, CA  997229-42	FAX (408) 573-777 PHONE (408) 573-055	MPOSITE ALL CONTAINERS	- gas, BTEX	by 8260	- diesel	Охувепатев by 8260	2-DCA & EDB by 8010		ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LINSET BY CALIFORNIA DHS AND    PA
MW-5 12-3099 350 U	TOTAL	ပ်	Tail X	TW	X	, VO			Confirm more by 8260
MPLETED DATE TIME SAM DMPLETED 12-3011 9:20 PERF ELEASED BY	PLING FORMED BY DATE 12/31 DATE	199	TIME 16 TIME	: ८५	*	RECE	VED BY	PEN N	DATE TIME  DATE  DATE  TIME  TIME  TIME  TIME
PPED VIA	DATE S	ENT	TIME	SENT	C	DOLEF	R &		

BLANE SAN JOS	1680 ROGER E, CALIFORNIA 9	S AVENUE		CON	IDUCT	ANAL	YSIS T	ODE	TECT	$\neg$				
TECH SERVICES INC.	EIV (JAA)	573-7771		7		1		001	, 20,					DHS #
	FRONE (408)	7 37 3-0555				}				SI	LL ANALYSES MU: ET BY CALIFORNI	ST MEET SPEC!! A DHS AND	FICATIONS AN	ID DETECTION LIMITS
CHAIN OF CUSTODY											☐ EPA		□RWC	ICB REGION
								_			LIA			
CLIENT Equiva - Karen Petr	-77-0-0							8010		ļ	OTHER			
SITE 3800 Broadway	yna		K K				260	}	i I	SF	PECIAL INSTRUCT	TIONS		
3000 Bloadway			L CONTAINERS				82	by			Send invoid	ce to Equiv	7a	-1 5 M
Oakland, CA			ALL R	8020	8260	el	by	EDB			Incident # 93995026			
991229-42		1	COMPOSITE PH - PAS	1 1	1	diesel	tes	৵						
l k	MATRIX CONTAI	INERS	j   °	م ا	(	ו	enat	-DCA			Send report			rvices
[5	H20	į	TPH	MTBE	MTBE	TPH	0xyg(	2-			Attn:	Ann Pember	:	
SAMPLE I.D.	TOTAL	1	н Е— Э	¥	M.	T.	6	۱,		ADI	D'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1 12-3099 350	W 5		X	1		X						O MI OO	ICONDITION	LAB SAMPLE #
MW-5 12308 9:20	5		X			X				_ -				
1.201. 4.20	<u> </u>		-			-		-+			1 N /1	7		
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SAMPLING DATE TIME SAMPLETED 12-309 9:10	AMPLING ERFORMED BY			-			· /			RES	ULTS NEEDED	······································	<u> </u>	<del></del>
RELEASED BY		San IDATE	تثد	Truc						NOL	ATER THAN			
$X$ . $\mathcal{J}_{\Lambda}$		12/30	1901	TIME	09		HECE	IYER	BY		JUG		DATE	11ME 09
RELEASED BY	,	DATE	<del></del>	TIME			RECE	IVED	BY - )				DATE /	>0 /6 (
- Jane	n						•		Dan	الله			12/30	1900
RELEASED BY	/	DATE		TIME		1	RECE	IVED	BY	76	<del>1-7</del>		DATE	TIME
SHIPPED VIA		15	· · · ·			7	, 				/			• ** **
pr		DATE SE	N I	TIME:	SENT	C	OOLE	R#						
														}

#### WELL GAUGING DATA

Project#_	000/07	Rel Date	1-7-00	Client	Equira
Site	3 800	Broad way	Oakland,	CA	

Weil ID	Well Size (in.)	Sheen / Odor		Thickness of Immiscible Liquid (ft.)		Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB (or TOC)
MW-2	2	odur	22.45	- 39		22.84		
1716-3	2	odar	19.80	.07		19.87	<b></b>	
MW-8	2	odu r	20.60	.40		21.00	•	<u> </u>
							· · · · · · · · · · · · · · · · · · ·	
*	Me	t wi	<i>th</i> <sup>s</sup>	ervic	e 5ti	itim S	stems	
	Va	LC.	Trnek	か	pura	e well	ls after	
	ga	ngong	SPA	<b>!</b>	, ,	e Wel		
	J	<i>J</i> .	_					

### WELL GAUGING DATA

Project # 991	229-42	Date 12-30-99	Client	618571071
Site <u>3800</u>	Broadway	Ockland	Cc	

	Weli		Depth to	Thickness of	Volume of Immiscibles			Survey	
Well ID	Size (in.)	Sheen / Odor	Immiscible	Immiscible Liquid (ft.)	Removed	Depth to water (ft.)	Depth to well bottom (ft.)	Point: TOB or TOC	
MW-1		0.001	Enquie (re)	Eiquid (ic)	(1111)	22.81	30.42		
MW-2	<b>1</b>		21.87	.30		22.17			
MW-3	٤		19.21	. 04		19.25			
MW-4	٤					19.08	34.57		
MW-5	2					21.41	33.00		
MW-6	2					24.96	31.63		
: ;	2					20.15	33.12		
MW-7 MW-8	2		19.99	. 26		20.25			
					***************************************	18.01	3 3.82		
MW-9 MW-10	2				2 V V V V V V V V V V V V V V V V V V V	18.13	32.51		
					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
					3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
			144						

Sampler: Sanjiv  Well I.D.: MW-1  Well Diameter: 2 3 4 6 8  Total Well Depth: 30.42  Depth to Free Product:  Thickness of Free Product (feet):	
Well I.D.: MW-1 Well Diameter 2 3 4 6 8  Total Well Depth: 30.42 Depth to Water: 22.81	
Δ Δ . δ 1	
1	
Referenced to: PVC Grade D.O. Meter (if req'd): YSI HAC	CH
Well Diameter Multiplier  2" 0 16 5" 1.02  3" 0.37 6" 1.47  4" 0 65 Other radius² * 0 163  Purge Method:  Bailer  Middleburg  Extraction Pump  Other:	
1. 2 x 3 = 3.6 Gals.  1 Case Volume (Gals.) Specified Volumes Calculated Volume	
Time Temp (°F) pH Cond. Turbidity Gals. Removed Observati	ons
8:40 587 7.3 1109 7200 2	
8:41 60.3 6.8 1096 >20D 3	
8:42 62.1 6.7 1099 7200 4	
Did well dewater? Yes No Gallons actually evacuated:	
Sampling Time: 8:50 Sampling Date: 12-30-99	
Sample I.D.: MW-1 Laboratory: Sequoia BC Other_	
Analyzed for: TPH-G BTEX MTBE (PH-D) Other:	
D.O. (if req'd): Pre-purge: mg/L Post-purge:	$^{\mathrm{mg}}\!/_{\mathrm{L}}$
O.R.P. (if req'd): Pre-purge: mV Post-purge:	mV

EQUIVA WELL MONITORING DATA SHEET BTS#: 991229-42 Site: 618571071 Sampler: Date: 12-29-59 Well I.D.: Well Diameter: 3 6 8 Total Well Depth: Depth to Water: 22.17 Depth to Free Product: Thickness of Free Product (feet): Referenced to: PVC D.O. Meter (if req'd): Grade YSI HACH Purge Method: Sampling Method Bailer 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 2" (Gals.) X 0.16 6" Gals. 1 47 3" 0.37 Other I Case Volume Specified Volumes radius<sup>2</sup> \* 0 163 Calculated Volume Temp (°F) Time pН Cond. Turbidity Gals. Removed Observations Bai Did well dewater? Yes Gallons actually evacuated: No Sampling Time: Sampling Date: Sample I.D.: Laboratory: Seguoia Columbia Other Analyzed for: TPH-G **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:

2.6

Pre-purge:

Pre-purge:

D.O. (if req'd):

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

 $\overline{^{mg}}/_{I}$ 

mV

Post-purge:

Post-purge:

mg/

mV

EQUIVA WELL MONITORING DATA SHEET BTS#: 99/229-42 618571071 Sampler: Sanjiv Date: .12-30-99 Well I.D.: Well Diameter: ( 6 8 Total Well Depth: Depth to Water: 19.25 Depth to Free Product: Thickness of Free Product (feet): Referenced to: D.O. Meter (if reg'd): Grade YSI HACH Purge Method: Sampling Method: Bailer 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 4" 0.65 2" (Gals.) X 0.16 6" Gals. 1.47 0.37 1 Case Volume Specified Volumes Other Calculated Volume radius2 \* 0 163 Temp (°F) Time pΗ Cond. **Turbidity** Gals. Removed Observations 15dDid well dewater? Yes Gallons actually evacuated: No Sampling Time: Sampling Date: Sample I.D.. Laboratory: Sequoia Columbia Other Analyzed for: TPH-G **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

Pre-purge:

Pre-purge:

mg/

 $m \setminus$ 

Post-purge:

Post-purge:

D.O. (if req'd):

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

Project #	: 9912:	29- UZ		Job# 618576071			
Sampler:	San	siv		Date: /2-29-59			
Well I.D.	: MW	-41		Well Diamete	r: ② 3 4	6 8	
Total We	ll Depth:	34.5	7	Depth to Wate	er: 19.08		
Depth to	Free Prod	uct:		Thickness of I	Free Product (fe		
Reference		PVC	Grade	D.O. Meter (it	f req'd):	YSI HACH	
Purge Metho		Bailer  Middleburg	0 16 0 37 0.65	Sampling Method	Extraction Port		
		Extraction Pun		Outer	:		
	<u> </u>	lume (Gals.)	X Specified Vo		7. 2 Gals.		
Time	Temp (°F)	рН	Cond.	Turbidity	Gals. Removed	Observations	
13:35	66.9	72	426	>100	] 3		
13:37	67-3	7.1	424	>200	5		
13-39	67-8	7.2	431	>200	7.5		
Did well d	lewater?	Yes (	No	Gallons actuall	y evacuated:	7.5	
Sampling	Time:	3:44		Sampling Date	: 12-29-9		
Sample I.I	D.: MW	- 4		Laboratory:	Sequoia ) BC	Other	
Analyzed	for: (TPH-	G BTEX	мтве (трн-d)	Other:			
D.O. (if re	q'd):		Pre-purge:	mg/L	Post-purge:	mg/ <sub>L</sub>	
O.R.P. (if	req'd):	<u> </u>	Pre-purge:	mV	Post-purge:	mV	

			· · · · · · · · · · · · · · · · · · ·					
Project #	: 99 12	29-42	Σ	Job# 618571071				
Sampler:	Sanj	`\V		1	Date: 12-30-99			
Well I.D.	: M+	1-15	MW-5	Well Diamete	<u></u>	6 8	3	
Total We	ll Depth:	33.0	D	Depth to Wate	er: 21.41			
Depth to	Free Prod	uct:			Free Product (fe	eet):		
Referenc	ed to:	PXC	Grade	D.O. Meter (if	<del></del>	·····	TYLOTT	
	Well Diame 2" 3" 4"		Multiplier 0.16 0.37 0.65	Well Diameter 5" 6"	Multiplier 1.02 1 47 iius² * 0 163	YSI	НАСН	
Purge Metho	Ele	Bailer Middleburg ectric Submers Extraction Pun	sible	Sampling Method	·			
		8 <b>5</b> ume (Gals.)	X		Gals.			
Time	Temp (°F)	pН	Cond.	Turbidity	Gals. Removed	Ob	servations	
9:10	59.5	6-6	1721	>200	2			
9:11	59.1	6.5	1722	>200	4			
9:12	61.1	6.5	1707	>200	5.5			
Did well o	lewater?	Yes (	No	Gallons actuall	y evacuated:	55		
Sampling	Time:	7:20		Sampling Date	: 12-30-9	9		
Sample I.I	D.: M	W-5		Laboratory:	Sequoia BC	Other_		
Analyzed	for: (TPH-	G BTEX	MTBE TPH-D	Other:				
D.O. (if re	q'd):		Pre-purge:	$^{ m mg}\!/_{ m L}$	Post-purge:		mg/ <sub>L</sub>	
O.R.P. (if	req'd):		Pre-purge:	mV	Post-purge:		mV	

Project #	9912	29-U2		Job# 618	3571071			
Sampler:	Sav	ii L		Date: 12-29-99				
Well I.D.	: MU	V-6	·	Well Diamet	er: (2) 3 4	4 6 8		
Total We	ll Depth:	31.6	3	Depth to Wa	ter: 24.96			
Depth to	Free Prod	uct:		Thickness of	Free Product (f	eet):		
Reference	ed to:	PVC	Grade	D.O. Meter (	if req'd):	YSI HACH		
	Well Diame 2" 3" 4"	ter	Multiplier 0 16 0 37 0.65	Well Diameter 5" 6"	Multiplier 1 02 1.47 adius <sup>2</sup> * 0 163			
Purge Metho	Ele	Bailer Middleburg ectric Submers Extraction Pun		Sampling Metho	d: Bailer Extraction Port er;	_		
	1 Case Vol	ume (Gals.)	X	=	Gals.			
Time	Temp (°F)	pН	Cond.	Turbidity	Gals. Removed	Observations		
14:35	65.41	6.8	1035	7200	1			
14:36	64.9	6.7	1041	7200	2			
14:37	64.4	6.6	1049	7200	3			
Did well o	lewater?	Yes (	No	Gallons actua	lly evacuated:	7		
Sampling	Time:	41145		Sampling Dat	e: /1-25-55			
Sample I.I	D.: MU	V-6		Laboratory:	Sequoia BC	Other		
Analyzed	for: TPH-	G BTEX)	MTBE (TPH-D)	Other: Nitsa	te, Sulfate,	Ferrous iron		
D.O. (if re	q'd):		Pre-purge:	1. 3 mg/	Post-purge:	: 1,5 mg/L		
O.R.P. (if	req'd):		Pre-purge:	-163 mV	Post-purge:	-235 mV		

Project #: 99/229-u2   Job # 61857/07     Sampler: 5anjiv   Date: 12-29-99     Well I.D.: MW-7   Well Diameter: 2 3 4 6 8     Total Well Depth: 33.12   Depth to Water: 20./5     Depth to Free Product: Thickness of Free Product (feet): Referenced to: PVC   Grade   D.O. Meter (if req'd): YSI   HACH	I
Well I.D.: MW-7  Well Diameter: 2 3 4 6 8  Total Well Depth: 33.12  Depth to Water: 20./5  Depth to Free Product:  Referenced to: PVC Grade D.O. Meter (if req'd): YSI HACH  Well Diameter Multiplier 2" 0.16 5" 1.02 3" 0.37 6" 1.47 4" 0.65 Other radius 0.163  Purge Method: Bailer Middleburg Extraction Port  Electric Submersible Extraction Pump  Other:  2. O X 3 = 6. O Gals.	4
Depth to Free Product:  Referenced to:  PVC  Grade  D.O. Meter (if req'd):  Well Diameter  2"  0.16  5"  1.02  3"  4"  0.65  Other  Middleburg  Electric Submersible  Extraction Pump  Other:  2"  A. O  A  Gals.	1
Depth to Free Product:  Referenced to:  PVC  Grade  D.O. Meter (if req'd):  Well Diameter  1.02  3° 0.16 3° 0.37 6° 1.02  4° 0.65  Other  Furge Method:  Bailer  Middleburg  Electric Submersible  Extraction Pump  Other:  2. O  X  Gals.	4
Well Diameter Multiplier  2" 0.16 5" 1.02  3" 0.37 6" 1.47  4" 0.65 Other radius² • 0.163  Purge Method: Bailer  Middleburg Extraction Port  Electric Submersible Other:  Extraction Pump  Other:   2. 0  X  Gals.	ł
2" 0.16 5" 1.02 3" 0.37 6" 1.47 4" 0.65 Other radius² + 0.163  Purge Method: Bailer  Middleburg  Electric Submersible  Extraction Pump  Other:  2" 0.16 5" 1.02  Sampling Method: Bailer  Extraction Port  Other:  Gals.	
Middleburg  Electric Submersible  Extraction Pump  Other:  2. 0  X  Gals.	
Time Temp (°F) pH Cond. Turbidity Gals. Removed Observation	ns
11:16 625 8.3 626 7200 2	
11:18 62-8 7-7 557 >200 4	
11:20 61.8 7.4 563 >200 6	
Did well dewater? Yes (No) Gallons actually evacuated: 6	
Sampling Time: 11:30 Sampling Date: 17-24-99	
Sample I.D.: MW-7 Laboratory: Sequoia BC Other	
Analyzed for: (TPH-9 (BTEX) MTBE) (PH-D) Other: - Nitrate, Sulfate, Ferro	mie in
D.O. (if req'd): Pre-purge: 2,3 <sup>mg</sup> /L Post-purge: 1.8	mg/L
O.R.P. (if req'd): Pre-purge: -12 mV Post-purge: 62	

Project #	1:122999-42		Job # 618	57/07/	
Sampler		V	I	30-95	
Well I.D	۸ ۵			er: 2 3 4	6 8
Total We	ell Depth:		Depth to Wa	ter: 20.25	
Depth to	Free Product:	19.99		Free Product (fe	eet): ,26
Referenc	ed to: PV	C Grade	D.O. Meter (	if req'd):	YSI HACH
Purge Meth	well Diameter  2" 3" 4"  Bai  Middle  Electric Su  Extractio	eburg bmersible	Sampling Metho	Multiplier 1.02 1 47 adius² * 0.163 d: Bailer Extraction Port	
	I Case Volume (Ga	uls.) Specified	=	Gals. alçulated Volume	
Time	Temp (°F) pF	Cond.	Turbidity	Gals. Removed	Observations
	0	bail			
	dewater? Yes	No	Gallons actua		
Sampling			Sampling Date	e:	
Sample I.	D.:		Laboratory:	Sequoia BC	Other
Analyzed	for: трн-G вт	<del></del>	Other:		
D.O. (if re	eq'd):	Pre-purge	mg/	r Post-purge:	m

Pre-purge:

mV

Post-purge:

mV

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

Project #	99122	9-U2	71071				
Sampler:	Sa	سانزه		Date:   2-29-55			
Well I.D.	: MW	14. 14.		Well Diameter: (2) 3 4 6 8			
Total We	ll Depth:	33.82	2	Depth to Wate	er: 18.01	· · · · · · · · · · · · · · · · · · ·	
Depth to	Free Produ	ıct:		Thickness of I	Free Product (fe	et):	
Reference	ed to:	PVC	Grade	D.O. Meter (if	req'd):	YSI	НАСН
Purge Metho	Well Diame   2"   3"   4"   4"	Bailer	Multiplier 0 16 0 37 0.65	Well Diameter 5" 6" Other rad Sampling Method	Multiplier 1 02 1.47 lius <sup>2</sup> * 0.163		
Ü	Ele	Middleburg ctric Submers xtraction Pun	sible	Extraction Port  Other:			
		ume (Gals.)	X 3 Specified Vo	elumes Ca	Gals.		
Time	Temp (°F)	pH.	Cond.	Turbidity	Gals. Removed	Obse	rvations
11:45	68.7	7-4	558	>200	3		
17:47		7.3	453	7200	6		
12:49	68-2	7.3	451	7200	8		
		,					
Did well o	lewater?	Yes (	No	Gallons actuall	y evacuated:	8	
Sampling	Time: -	11-1	12:55	Sampling Date	: 12-29-	99	
Sample I.I	D.: Mh	1-9		Laboratory: (	Sequoia BC	Other	
Analyzed	for: IPH-C	BTEX	MTBE TPHED	Other:	vitcate. Su	fate. Fe	ecrous Ira
D.O. (if re	q'd):		Pre-purge:	3.3 mg/L	Post-purge:	2.	7 mg/L
O.R.P. (if	req'd):		Pre-purge:	<b>O</b> mV	Post-purge:	10	mV

Project #	9912	29- 42		Job# 618571071					
Sampler:	5	anjiv		Date: 12-	29-99				
Well I.D.	: Mu	v-10		Well Diamete	Well Diameter: 2, 3 4 6 8				
Total We	ll Depth:	32.5	51	Depth to Wat	er: /8./3				
Depth to	Free Prod	uct:		Thickness of	Free Product (fe	et):			
Reference	ed to:	PVC	Grade	D.O. Meter (i	f req'd):	YSI HACH			
Purge Metho	<u>Well Diame</u> 2" 3" 4"	Bailer Middleburg	Multiplier 0.16 0.37 0.65	Well Diameter 5" 6" Other race Sampling Method	Multiplier 1.02 1.47 dius² • 0.163 dius² • Extraction Port				
		ectric Submers Extraction Pun		Other	Extraction Port				
	2. 1 Case Vol	3 ume (Gals.)	X3 Specified Vo	= Dlumes Ca	6.9 Gals.				
Time	Temp (°F)	рН	Cond.	Turbidity	Gals. Removed	Observations			
12:05	65.4	7.1	775	7200	3				
12:08	65.7	7.0	743	7200	Ą				
12:11	65.3	7.0	731	>200	7				
Did well o	lewater?	Yes (	No	Gallons actual	ly evacuated:	7			
Sampling	Time: 1	1:14		Sampling Date	: 12-29-99				
Sample I.I	D.: MW	1-10		Laboratory: (	Sequoia BC	Other			
Analyzed	for: (TPH-	BTEX	MTBE (TPH-D)	Other:					
D.O. (if re	q'd):	· · · · · · · · · · · · · · · · · · ·	Pre-purge:	mg/L	Post-purge:	<sup>("mg</sup> / <sub>L</sub>			
O.R.P. (if	req'd):		Pre-purge:	mV	Post-purge:	mV			