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Alameda County

APR 14 2004

Environmental Health

www.deltaenv.com

To: Alameda County Environmental Health Services Date: 4/12/2004
 1131 Harbor Bay Pkwy
 Alameda CA 94502 Job No: SJ45-30L-1.2004

Attn: Mr. Scott Seery

We are sending the following items:

Date	Copies	Description
8-Apr-04	1	Quarterly Monitoring Report - First Quarter 2004
		Shell-branded Service Station
		4530 Las Positas Road
		Livermore, CA

These are transmitted:

- For your Information
 For action specified below
 For review and comment
 For your use
 As requested

By: Vera Fischer

Title: Senior Staff Geologist

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April 8, 2004
Project No. SJ45-30L-1.2004

Mr. Scott Seery
Environmental Health Services – Environmental Protection
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Re: Quarterly Monitoring Report – First Quarter 2004
Shell-branded Service Station
4530 Las Positas Road
Livermore, California**

Dear Mr. Seery:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared the following first quarter 2004 groundwater monitoring and sampling report for the above referenced site. Groundwater sampling was performed by Blaine Tech Services (Blaine), at the direction of Delta. A site location map is included as Figure 1.

QUARTERLY GROUND WATER MONITORING PROGRAM

Groundwater monitoring wells were gauged and sampled by Blaine on January 13, 2004. Depth to groundwater was measured in Wells MW-1 through MW-4. Groundwater elevation data is presented on Figure 2.

Groundwater samples were collected from Wells MW-1 through MW-4. Samples were submitted by Blaine to Severn Trent Laboratories, Inc. (STL) in Pleasanton, California for analysis for total purgeable petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and the five fuel oxygenates methyl tert-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butanol (TBA); ethanol; 1, 2-dichloroethane (1, 2-DCA), ethylene dibromide (EDB) using EPA Method 8260B. Samples are also analyzed for methanol using EPA Method 8015Mod. Benzene and MTBE concentrations are presented on Figure 3.

Blaine's groundwater monitoring and sampling report, which includes historical and current groundwater elevation data, historical and current analytical results, and field data records for the current monitoring event, is included as Attachment A.

DISCUSSION

The groundwater gradient at the site is complex. As in previous quarters, no clear groundwater flow direction could be established based on the January 13, 2004 gauging data. In general, the downgradient flow direction at the site has consistently been towards Well MW-4 (northeast).

All analytes were below laboratory detection limits for all site wells during the first quarter 2004. Delta proposes to eliminate oxygenates DIPE, ETBE, TAME, and TBA from the list of monitoring parameters, as these constituents have never been detected in any site well.

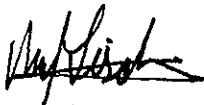
Delta plans to request case closure. MTBE has been below laboratory detection limits in all site wells for at least three consecutive quarters. No other analytes have been detected in site wells since sampling began in 2001. Delta proposes to maintain site wells and return this site to Shell's GRASP Monitoring Program pending case closure.

REMARKS

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

Please call if you have any questions regarding the contents of this letter.

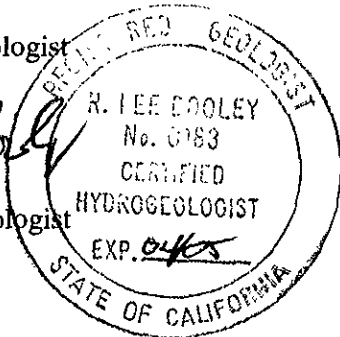
Sincerely,
Delta Environmental Consultants, Inc.



Vera Fischer
Senior Staff Geologist



R. Lee Dooley
Senior Hydrogeologist
CHG 0183



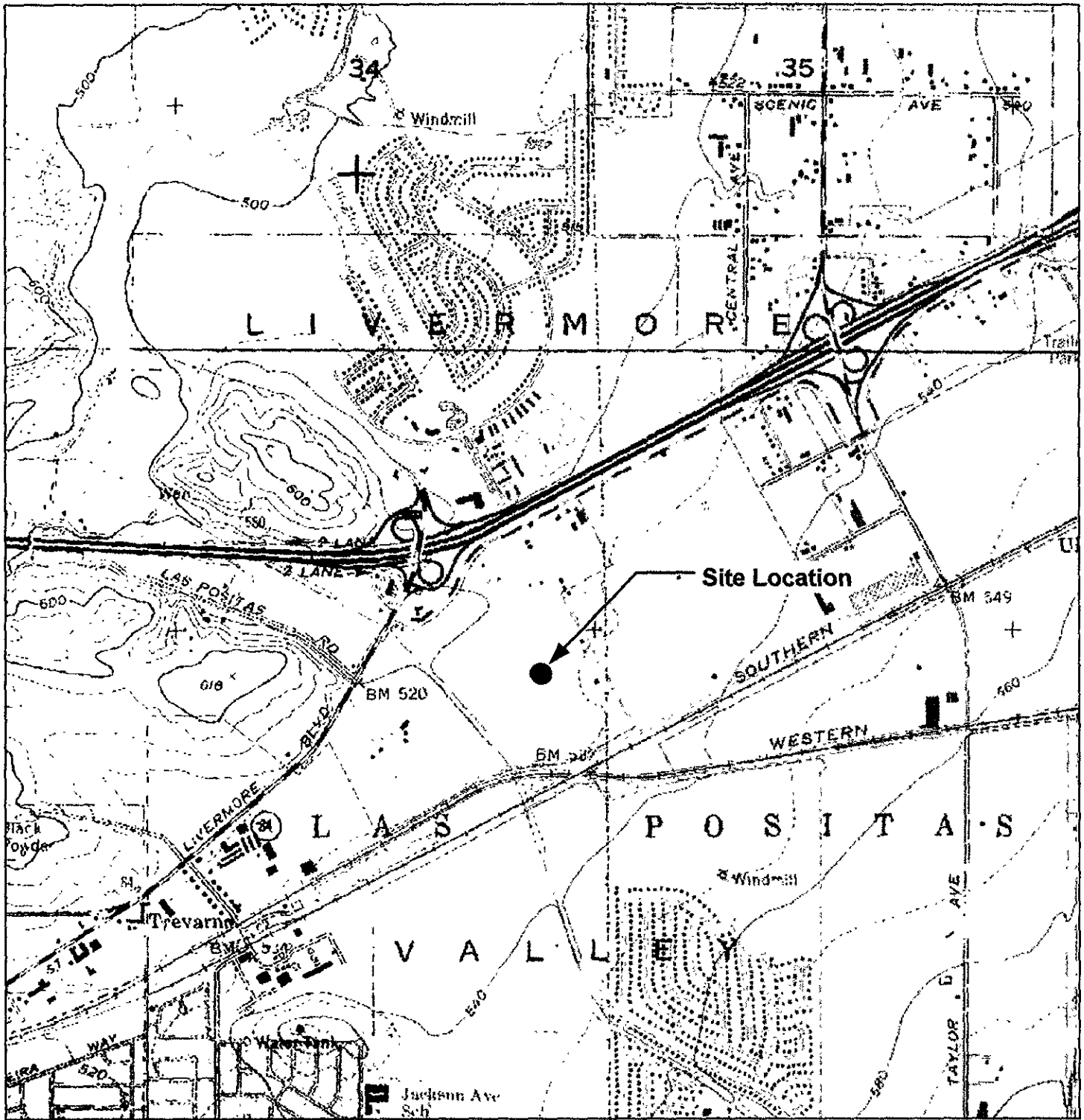
April 8, 2004

Page 3

Attachments: Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Map
Figure 3 – Benzene and MTBE Concentration Map

Attachment A – Groundwater Monitoring and Sampling Report, February 11, 2004

cc: Karen Petryna, Shell Oil Products US, Carson
Chuck Headlee, RWQCB - San Francisco Bay Region, Oakland
Livermore-Pleasanton Fire Department, Livermore



GENERAL NOTES:
 Base Map from: DeLorme Yarmouth, ME 04096
 Source Data: USGS



QUADRANGLE LOCATION

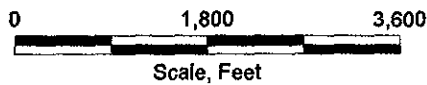


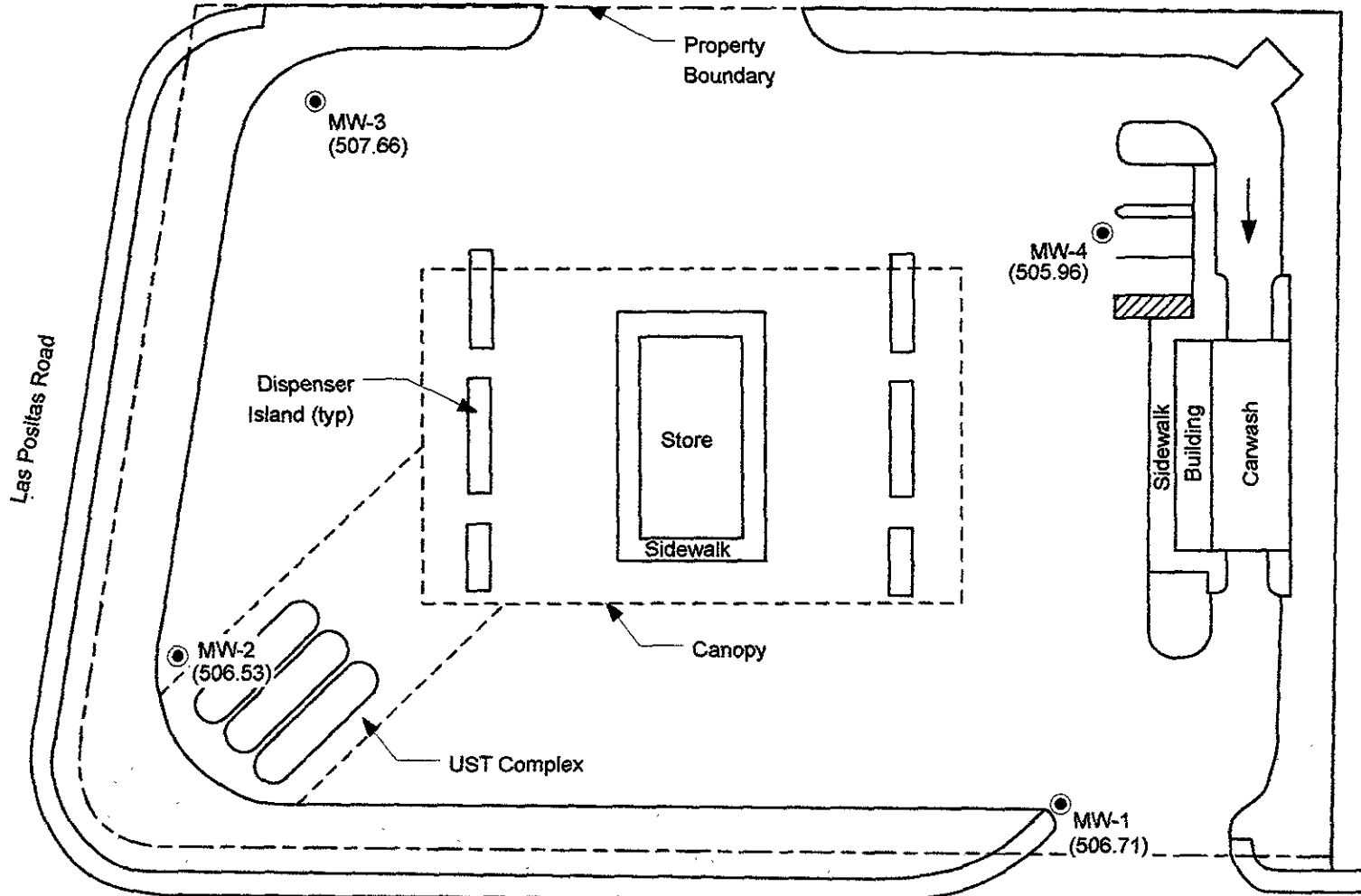
FIGURE 1
 SITE LOCATION MAP

SHELL-BRANDED SERVICE STATION
 4530 Las Positas Road
 Livermore, California

PROJECT NO. SJ45-30L-1.2004	DRAWN BY VF 9/28/03
FILE NO. SJ45-30L-1.2004	PREPARED BY VF
REVISION NO.	REVIEWED BY



North



North First

LEGEND

- MW-2 ● **GROUNDWATER MONITORING WELL**
- (507.22) **GROUNDWATER ELEVATION (MSL), 1/13/04**



APPROX. SCALE

FIGURE 2

GROUNDWATER ELEVATION MAP, JANUARY 13, 2004

SHELL-BRANDED SERVICE STATION
 4530 Las Positas Road
 Livermore, California

PROJECT NO. SJ45-30L-1.2004	DRAWN BY VF 9/30/03
FILE NO. SJ45-30-1.2004	PREPARED BY VF
REVISION NO. 1	REVIEWED BY



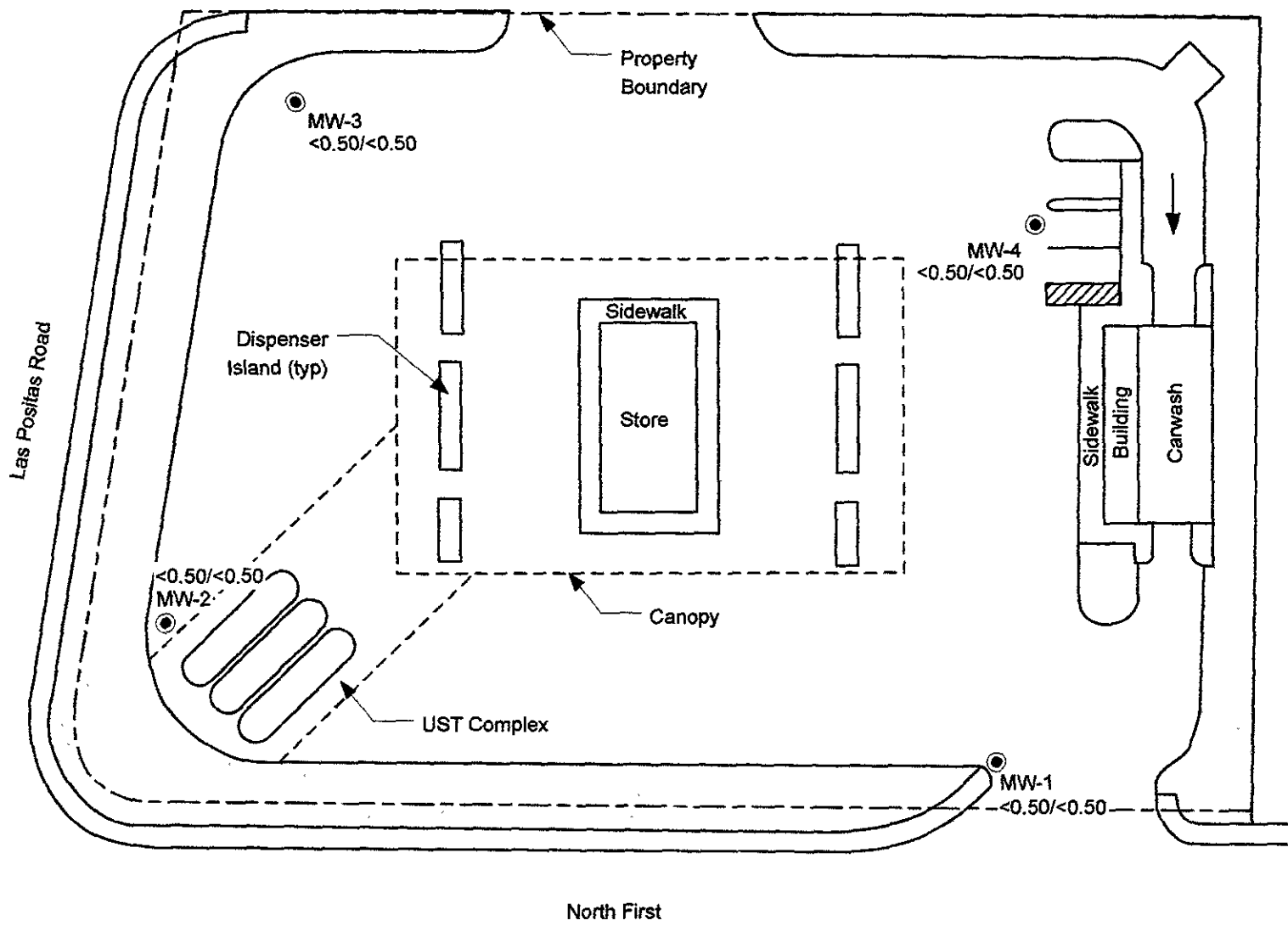


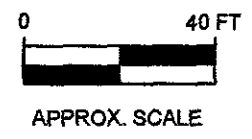
FIGURE 3
BENZENE AND MTBE CONCENTRATION MAP,
JANUARY 13, 2004

SHELL-BRANDED SERVICE STATION
4530 Las Positas Road
Livermore, California

LEGEND

MW-2 ● **GROUNDWATER MONITORING WELL**

<0.50/<0.50 **BENZENE/MTBE (UG/L), 1/13/04**



PROJECT NO. SJ45-30L-1.2004	DRAWN BY VF 9/30/03
FILE NO. SJ45-30-1.2004	PREPARED BY VF
REVISION NO. 1	REVIEWED BY



Attachment A

GROUNDWATER MONITORING AND SAMPLING REPORT

BLAINE
TECH SERVICES, INC.



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

February 11, 2004

Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

First Quarter 2004 Groundwater Monitoring at
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

Monitoring performed on January 13, 2004

Groundwater Monitoring Report 040113-JP-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 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. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart
Project Coordinator

LG/jt

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

cc: Garrett Haertel
Delta Environmental
175 Bernal Road, Suite 200
San Jose, CA 95119

WELL CONCENTRATIONS
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/l)	ETBE (ug/l)	TAME (ug/l)	TBA (ug/l)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
---------	------	----------------	-------------	-------------	-------------	-------------	------------------------	----------------	----------------	----------------	---------------	--------------	----------------------------	--------------------------

MW-1	09/20/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-1	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.86	13.13	506.73
MW-1	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.86	13.17	506.69
MW-1	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.86	12.80	507.06
MW-1	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	12.64	507.22
MW-1	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	13.25	506.61
MW-1	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	13.43	506.43
MW-1	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	13.15	506.71

MW-2	09/20/2001	NA	<0.50	<0.50	<0.50	<0.50	0.6	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-2	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.50	12.41	506.09
MW-2	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.50	12.34	506.16
MW-2	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.50	11.56	506.94
MW-2	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	11.38	507.12
MW-2	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	13.45	505.05
MW-2	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	12.64	505.86
MW-2	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	11.97	506.53

MW-3	09/20/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-3	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.93	11.58	507.35
MW-3	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.93	11.17	507.76
MW-3	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.93	11.18	507.75
MW-3	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.25	507.68
MW-3	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.39	507.54
MW-3	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.54	507.39
MW-3	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.27	507.66

WELL CONCENTRATIONS
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/l)	ETBE (ug/l)	TAME (ug/l)	TBA (ug/l)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
---------	------	----------------	-------------	-------------	-------------	-------------	------------------------	----------------	----------------	----------------	---------------	--------------	----------------------------	--------------------------

MW-4	11/06/2001	NA	<0.50	<0.50	<0.50	<0.50	16.0	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-4	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	470	<2.0	<2.0	<2.0	<50	519.44	13.42	506.02
MW-4	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	22	<2.0	<2.0	<2.0	<50	519.44	13.42	506.02
MW-4	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.44	13.07	506.37
MW-4	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	2.0	<2.0	<2.0	<2.0	<5.0	519.44	12.93	506.51
MW-4	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.44	13.51	505.93
MW-4	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.44	13.69	505.75
MW-4	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.44	13.48	505.96

Abbreviations:

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

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.

MTBE = Methyl-tertiary-butyl ether

DIPE = Diisopropyl ether

ETBE = Ethyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft = Feet

<n = Below detection limit

Blaine Tech Services, Inc.

January 29, 2004

1680 Rogers Avenue
San Jose, CA 95112-1105
Attn.: Leon Gearhart
Project#: 040113-JP2
Project: 97464710
Site: 4530 Las Positas Rd., Livermore

Dear Mr. Gearhart,

Attached is our report for your samples received on 01/15/2004 16:58
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after
02/29/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,
please call me at (925) 484-1919.

You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,



Vincent Vancil
Project Manager

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2

97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/13/2004 13:00	Water	1
MW-2	01/13/2004 12:35	Water	2
MW-3	01/13/2004 12:10	Water	3
MW-4	01/13/2004 13:25	Water	4

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s):	8015M Alcohols	Test(s):	8015Mod
Sample ID:	MW-1	Lab ID:	2004-01-0417 - 1
Sampled:	01/13/2004 13:00	Extracted:	1/22/2004 12:00
Matrix:	Water	QC Batch#:	2004/01/22-01.20

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Methanol	ND	0.50	mg/L	1.00	01/22/2004 14:27	
<i>Surrogate(s)</i>						
tert-Butyl alcohol	84.3	60-130	%	1.00	01/22/2004 14:27	

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2

97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 8015M Alcohols

Sample ID: **MW-2**

Sampled: 01/13/2004 12:35

Matrix: Water

Test(s): 8015Mod

Lab ID: 2004-01-0417 -2

Extracted: 1/22/2004 12:00

QC Batch#: 2004/01/22-01.20

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Methanol	ND	0.50	mg/L	1.00	01/22/2004 14:38	
Surrogate(s)						
tert-Butyl alcohol	95.7	60-130	%	1.00	01/22/2004 14:38	

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 8015M Alcohols	Test(s): 8015Mod
Sample ID: MW-3	Lab ID: 2004-01-0417 -3
Sampled: 01/13/2004 12:10	Extracted: 1/22/2004 12:00
Matrix: Water	QC Batch#: 2004/01/22-01.20

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Methanol	ND	0.50	mg/L	1.00	01/22/2004 14:49	
Surrogate(s)						
tert-Butyl alcohol	87.5	60-130	%	1.00	01/22/2004 14:49	

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2

97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 8015M Alcohols

Sample ID: **MW-4**

Sampled: 01/13/2004 13:25

Matrix: Water

Test(s): 8015Mod

Lab ID: 2004-01-0417 - 4

Extracted: 1/22/2004 12:00

QC Batch#: 2004/01/22-01.20

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Methanol	ND	0.50	mg/L	1.00	01/22/2004 15:02	
Surrogate(s)						
tert-Butyl alcohol	84.8	60-130	%	1.00	01/22/2004 15:02	

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2

97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 8015M Alcohols

Method Blank

MB: 2004/01/22-01.20-004

Water

Test(s): 8015Mod

QC Batch # 2004/01/22-01.20

Date Extracted: 01/22/2004 12:00

Compound	Conc.	RL	Unit	Analyzed	Flag
Methanol	ND	0.50	mg/L	01/22/2004 12:24	
Surrogates(s) tert-Butyl alcohol	74.8	60-130	%	01/22/2004 12:24	

Alcohols by GC-FID

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 8015M Alcohols

Test(s): 8015Mod

Laboratory Control Spike

Water

QC Batch # 2004/01/22-01.20

LCS 2004/01/22-01.20-002

Extracted: 01/22/2004

Analyzed: 01/22/2004 12:34

LCSD 2004/01/22-01.20-003

Extracted: 01/22/2004

Analyzed: 01/22/2004 12:45

Compound	Conc. mg/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methanol	49.3	43.3	50.0	98.6	86.6	13.0	60-130	25		
Surrogates(s)										
tert-Butyl alcohol	49.0	46.2	50	98.0	92.4		60-130	0		

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

01/22/2004 17:08

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2

97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/13/2004 13:00	Water	1
MW-2	01/13/2004 12:35	Water	2
MW-3	01/13/2004 12:10	Water	3
MW-4	01/13/2004 13:25	Water	4

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-1	Lab ID: 2004-01-0417 - 1
Sampled: 01/13/2004 13:00	Extracted: 1/24/2004 03:29
Matrix: Water	QC Batch#: 2004/01/23-1B.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2004 03:29	
Benzene	ND	0.50	ug/L	1.00	01/24/2004 03:29	
Toluene	ND	0.50	ug/L	1.00	01/24/2004 03:29	
Ethylbenzene	ND	0.50	ug/L	1.00	01/24/2004 03:29	
Total xylenes	ND	1.0	ug/L	1.00	01/24/2004 03:29	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	01/24/2004 03:29	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/24/2004 03:29	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/24/2004 03:29	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/24/2004 03:29	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/24/2004 03:29	
1,2-DCA	ND	0.50	ug/L	1.00	01/24/2004 03:29	
EDB	ND	0.50	ug/L	1.00	01/24/2004 03:29	
Ethanol	ND	50	ug/L	1.00	01/24/2004 03:29	
Surrogate(s)						
1,2-Dichloroethane-d4	89.1	76-130	%	1.00	01/24/2004 03:29	
Toluene-d8	90.1	78-115	%	1.00	01/24/2004 03:29	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-2	Lab ID: 2004-01-0417 -2
Sampled: 01/13/2004 12:35	Extracted: 1/24/2004 03:48
Matrix: Water	QC Batch#: 2004/01/23-1B.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2004 03:48	
Benzene	ND	0.50	ug/L	1.00	01/24/2004 03:48	
Toluene	ND	0.50	ug/L	1.00	01/24/2004 03:48	
Ethylbenzene	ND	0.50	ug/L	1.00	01/24/2004 03:48	
Total xylenes	ND	1.0	ug/L	1.00	01/24/2004 03:48	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	01/24/2004 03:48	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/24/2004 03:48	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/24/2004 03:48	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/24/2004 03:48	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/24/2004 03:48	
1,2-DCA	ND	0.50	ug/L	1.00	01/24/2004 03:48	
EDB	ND	0.50	ug/L	1.00	01/24/2004 03:48	
Ethanol	ND	50	ug/L	1.00	01/24/2004 03:48	
Surrogate(s)						
1,2-Dichloroethane-d4	91.4	76-130	%	1.00	01/24/2004 03:48	
Toluene-d8	86.5	78-115	%	1.00	01/24/2004 03:48	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-3	Lab ID: 2004-01-0417 - 3
Sampled: 01/13/2004 12:10	Extracted: 1/24/2004 04:07
Matrix: Water	QC Batch#: 2004/01/23-1B.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2004 04:07	
Benzene	ND	0.50	ug/L	1.00	01/24/2004 04:07	
Toluene	ND	0.50	ug/L	1.00	01/24/2004 04:07	
Ethylbenzene	ND	0.50	ug/L	1.00	01/24/2004 04:07	
Total xylenes	ND	1.0	ug/L	1.00	01/24/2004 04:07	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	01/24/2004 04:07	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/24/2004 04:07	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/24/2004 04:07	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/24/2004 04:07	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/24/2004 04:07	
1,2-DCA	ND	0.50	ug/L	1.00	01/24/2004 04:07	
EDB	ND	0.50	ug/L	1.00	01/24/2004 04:07	
Ethanol	ND	50	ug/L	1.00	01/24/2004 04:07	
Surrogate(s)						
1,2-Dichloroethane-d4	90.6	76-130	%	1.00	01/24/2004 04:07	
Toluene-d8	88.1	78-115	%	1.00	01/24/2004 04:07	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-4	Lab ID: 2004-01-0417 - 4
Sampled: 01/13/2004 13:25	Extracted: 1/24/2004 04:26
Matrix: Water	QC Batch#: 2004/01/23-1B.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2004 04:26	
Benzene	ND	0.50	ug/L	1.00	01/24/2004 04:26	
Toluene	ND	0.50	ug/L	1.00	01/24/2004 04:26	
Ethylbenzene	ND	0.50	ug/L	1.00	01/24/2004 04:26	
Total xylenes	ND	1.0	ug/L	1.00	01/24/2004 04:26	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	01/24/2004 04:26	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/24/2004 04:26	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/24/2004 04:26	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/24/2004 04:26	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/24/2004 04:26	
1,2-DCA	ND	0.50	ug/L	1.00	01/24/2004 04:26	
EDB	ND	0.50	ug/L	1.00	01/24/2004 04:26	
Ethanol	ND	50	ug/L	1.00	01/24/2004 04:26	
Surrogate(s)						
1,2-Dichloroethane-d4	89.5	76-130	%	1.00	01/24/2004 04:26	
Toluene-d8	88.6	78-115	%	1.00	01/24/2004 04:26	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2004/01/23-1B.68-028

Water

Test(s): 8260B

QC Batch # 2004/01/23-1B.68

Date Extracted: 01/23/2004 21:28

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/23/2004 21:28	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	01/23/2004 21:28	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	01/23/2004 21:28	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/23/2004 21:28	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/23/2004 21:28	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/23/2004 21:28	
1,2-DCA	ND	0.5	ug/L	01/23/2004 21:28	
EDB	ND	0.5	ug/L	01/23/2004 21:28	
Benzene	ND	0.5	ug/L	01/23/2004 21:28	
Toluene	ND	0.5	ug/L	01/23/2004 21:28	
Ethylbenzene	ND	0.5	ug/L	01/23/2004 21:28	
Total xylenes	ND	1.0	ug/L	01/23/2004 21:28	
Ethanol	ND	50	ug/L	01/23/2004 21:28	
Surrogates(s)					
1,2-Dichloroethane-d4	92.0	76-130	%	01/23/2004 21:28	
Toluene-d8	95.8	78-115	%	01/23/2004 21:28	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040113-JP2
97464710

Received: 01/15/2004 16:58

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2004/01/23-1B.68

LCS 2004/01/23-1B.68-050

Extracted: 01/23/2004

Analyzed: 01/23/2004 20:50

LCSD 2004/01/23-1B.68-009

Extracted: 01/23/2004

Analyzed: 01/23/2004 21:09

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	23.8	23.5	25	95.2	94.0	1.3	65-165	20		
Benzene	24.3	23.0	25	97.2	92.0	5.5	69-129	20		
Toluene	24.5	23.1	25	98.0	92.4	5.9	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	425	426	500	85.0	85.2		76-130			
Toluene-d8	466	446	500	93.2	89.2		78-115			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

01/28/2004 15:51

LAB: STL

SHELL Chain Of Custody Record

82037

(if different location (if necessary))

Address

City, State, Zip

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRMT HOUSTON

Karen Petryna

2004-01-0417

INCIDENT NUMBER (S&E ONLY)

9 7 4 6 4 7 1 0

SAP or CRMT NUMBER (TS/CRMT)

DATE: 1/13/04

PAGE: 1 of 2

Blaine Tech Services 1680 Rogers Avenue, San Jose, CA 95112 Leon Gearhart 408-573-0555 408-573-7771 lgearhart@blainetech.com	BTSS	SITE ADDRESS (Street and City): 4530 Las Positas Rd., Livermore	GLOBAL ID#: pending
Garrett Haertel SAMPLER NUMBER: <i>Matthew</i>		PHONE N°: (408)224-4724	EMAIL: ghaertel@deltaenv.com
LAB USE ONLY		CONSULTANT PROJECT # 450783 STS # 40173-SP2	

TURN-AROUND TIME (BUSINESS DAYS)
 10 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS

LA - INVOICED REPORT FORMAT UST AGENCY: _____

GLIMS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EOD IS NOT NEEDED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (80215 - Spgh RL)	MTBE (82608 - 0.5ppb RL)	Oxygenates (9) by (82608)	Ethanol	Methanol	1-2-DIA	EOD	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes 2.5	TEMPERATURE (ON RECEIPT) °C
	MW-1	1/13/04	1300	W	6	X	X			X	X	X	X	X		
	MW-2	↓	1235	↓	↓	X	X			X	X	X	X	X		
	MW-3	↓	1210	↓	↓	X	X			X	X	X	X	X		
	MW-4	↓	1325	↓	↓	X	X			X	X	X	X	X		

Received by (Signature): <i>Matthew</i>	Received by (Signature): <i>[Signature]</i>	Date: 1/15/04	Time: 1520
Received by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date: 01/15/04	Time: 1658
Received by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date:	Time:

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client Shell Date 1/13/04
 Site Address 4530 Las Positas Rd, Livermore
 Job Number 040113-SP2 Technician M. Pyrch

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1	X							
MW-2	X							
MW-3	X							
MW-4	X							

NOTES: _____

WELL GAUGING DATA

Project # 040113-JP2 Date 1/13/04 Client 97464710

Site 4530 Las Positas Rd., Livermore

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	2					13.15	22.25	TOC
MW-2	2					11.97	22.70	↓
MW-3	2					11.27	22.20	
MW-4	2					13.48	22.61	

SHELL WELL MONITORING DATA SHEET

BTS #: 040113 - JP2	Site: 97464710
Sampler: M. Pynch	Date: 1/13/04
Well I.D.: MW-1	Well Diameter: <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth (TD): 22.25	Depth to Water (DTW): 13.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC <input type="radio"/> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.97	

Purge Method: <input checked="" type="radio"/> Bailer <input type="radio"/> Disposable Bailer <input type="radio"/> Positive Air Displacement <input type="radio"/> Electric Submersible	Waterra <input type="radio"/> Peristaltic <input type="radio"/> Extraction Pump <input type="radio"/> Other _____	Sampling Method: <input checked="" type="radio"/> Bailer <input type="radio"/> Disposable Bailer <input type="radio"/> Extraction Port <input type="radio"/> Dedicated Tubing Other: _____
---	--	--

$\frac{1.4 \text{ (Gals.)} \times 3 \text{ Specified Volumes}}{1 \text{ Case Volume}} = 4.2 \text{ Gals. Calculated Volume}$	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1248	63.3	7.0	1258	7200	1.5	cloudy, tan
1252	64.8	6.9	1254	7200	3.0	"
1255	65.8	6.9	1251	7200	4.5	"

Did well dewater? Yes <input checked="" type="radio"/> No	Gallons actually evacuated: 4.5	
Sampling Date: 1/13/04	Sampling Time: 1300	Depth to Water: 13.16
Sample I.D.: MW-1	Laboratory: <input checked="" type="radio"/> STL Other _____	
Analyzed for: <input checked="" type="radio"/> TPH-G <input checked="" type="radio"/> BTEX MTBE TPH-D	Other: oxy's, methanol, 1,2-DCA, EOB	
EB I.D. (if applicable): _____ @ _____ Time	Duplicate I.D. (if applicable): _____	
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: _____	
D.O. (if req'd): Pre-purge: _____	Post-purge: _____	mg/L
O.R.P. (if req'd): Pre-purge: _____	Post-purge: _____	mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SHELL WELL MONITORING DATA SHEET

BTS #: 040113 - JP2	Site: 97464310
Sampler: M. Pynch	Date: 1/13/04
Well I.D.: MW-2	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 22.70	Depth to Water (DTW): 11.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.12	

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	--	--

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

$1.7 \text{ (Gals.)} \times 3 = 5.1 \text{ Gals.}$
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1226	62.1	7.4	1201	7200	1.5	cloudy, brown
1228	65.4	7.1	1192	7200	3.5	"
1231	66.0	7.0	1172	7200	5.5	"

Did well dewater? Yes No Gallons actually evacuated: 5.5

Sampling Date: 1/13/04 Sampling Time: 1235 Depth to Water: 12.22

Sample I.D.: MW-2 Laboratory: STL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: oxy's, methanol, 1,2-DCA, EOB

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

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

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

O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
--------------------	------------	----	-------------	----

WELL MONITORING DATA SHEET

BTS #: 040113 - JP2	Site: 97464710
Sampler: M. Pynch	Date: 1/13/04
Well I.D.: MW-3	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 22.20	Depth to Water (DTW): 11.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.46	

Purge Method: <u>Bailer</u>	Water: <u>Peristaltic</u>	Sampling Method: <u>Bailer</u>
Disposable Bailer	Extraction Pump	Disposable Bailer
Positive Air Displacement	Other _____	Extraction Port
Electric Submersible		Dedicated Tubing
		Other: _____

$1.7 \text{ (Gals.)} \times 3 = 5.1 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														
1 Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1203	58.0	6.8	1052	>200	2	Very cloudy, brown
1205	65.5	7.0	1134	>200	4	"
1207	67.9	7.1	1159	>200	5.5	"

Did well dewater? Yes <input checked="" type="radio"/> No <input type="radio"/>	Gallons actually evacuated: 5.5	
Sampling Date: 1/13/04	Sampling Time: 1210	Depth to Water: 13.25
Sample I.D.: MW-3	Laboratory: <u>STL</u> Other _____	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE TPH-D	Other: oxy's, methanol, 1,2-DCA, EOB	
EB I.D. (if applicable): _____ @ _____ Time	Duplicate I.D. (if applicable): _____	
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: _____	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

SHELL WELL MONITORING DATA SHEET

BTS #: <u>040113 - JP2</u>	Site: <u>97464710</u>
Sampler: <u>M. Pynch</u>	Date: <u>1/13/04</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>22.61</u>	Depth to Water (DTW): <u>13.48</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>15.30</u>	

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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$\underline{1.4} \text{ (Gals.)} \times \underline{3} = \underline{4.2} \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1317</u>	<u>64.1</u>	<u>7.3</u>	<u>1266</u>	<u>7200</u>	<u>1.5</u>	<u>brown, cloudy</u>
<u>1320</u>	<u>64.4</u>	<u>6.9</u>	<u>1273</u>	<u>7200</u>	<u>3</u>	<u>"</u>
<u>1323</u>	<u>65.2</u>	<u>6.9</u>	<u>1275</u>	<u>7200</u>	<u>4.5</u>	<u>"</u>

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Date: 1/13/04 Sampling Time: 1325 Depth to Water: 14.61

Sample I.D.: MW-4 Laboratory: STL Other: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: oxy's, methanol, 1,2-DCA, EOB

EB I.D. (if applicable): _____ @ _____ Duplicate I.D. (if applicable): _____

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

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