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Alameda County
OCT 08 2004
Environmental Health

September 20, 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 – Third 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 third 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 July 14, 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); methyl tert-butyl ether (MTBE); and ethanol using EPA Method 8260B.

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 July 14, 2004 gauging data. In general, the downgradient flow direction at the site has consistently been towards both the northeast and the southwest.

All analytes tested were below laboratory detection limits for all site wells during the third quarter 2004.

Delta intends to terminate groundwater monitoring pending case closure. Delta plans to submit a case closure request during the fourth quarter 2004. MTBE has been below laboratory detection limits in all site wells for at least five consecutive quarters. No other analytes have been detected in site wells since sampling began in 2001. Shell may maintain site wells as part of their voluntary monitoring program, GRASP.

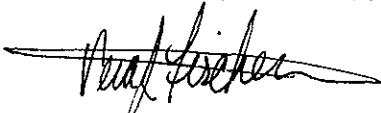
REMARKS

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,

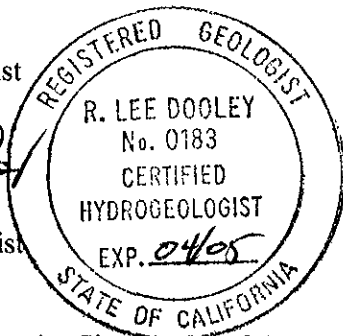
Delta Environmental Consultants, Inc.



Vera Fischer
Senior Staff Geologist

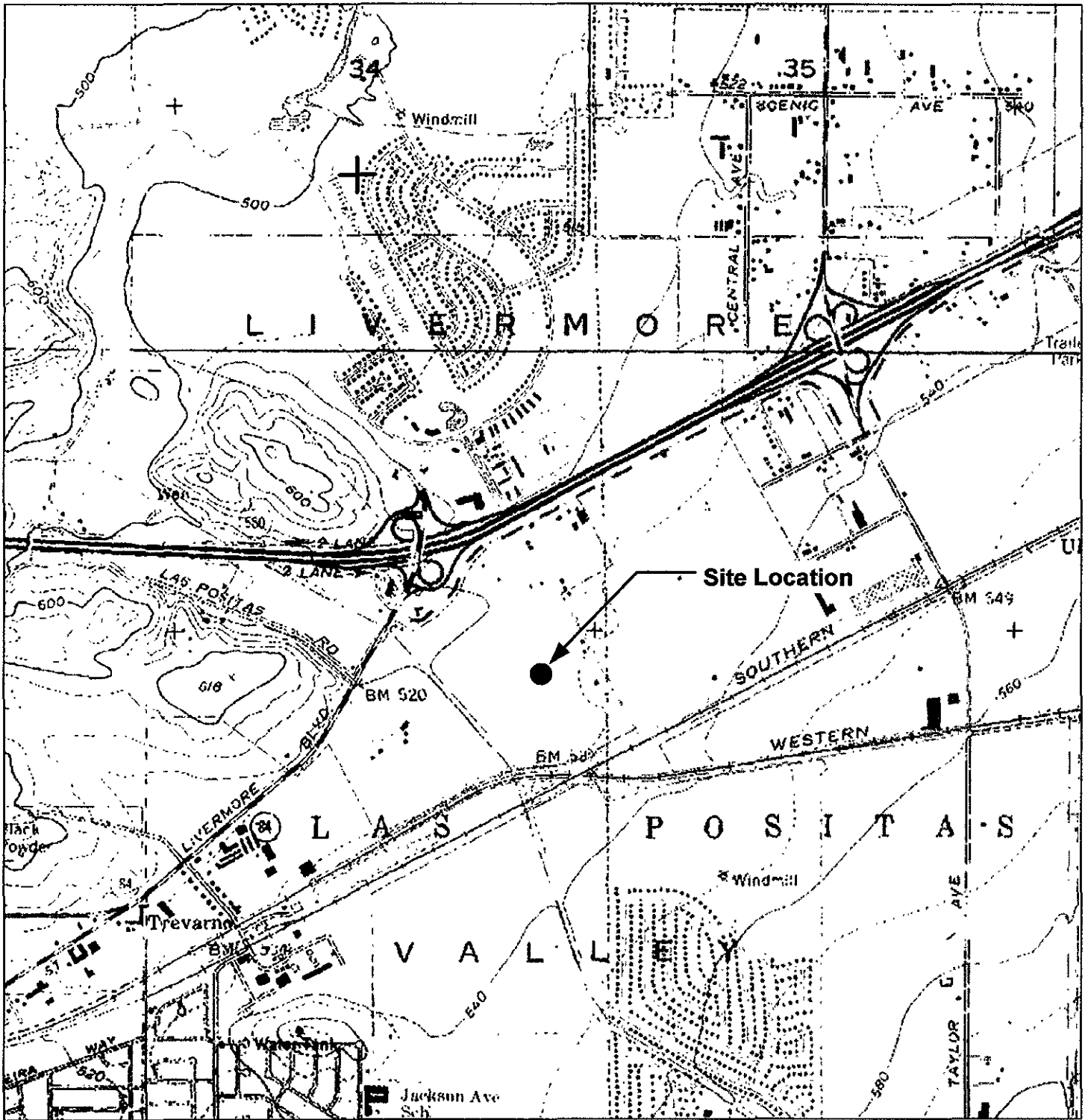


R. Lee Dooley
Senior Hydrogeologist
CHG 0183



- Attachments:** Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour Map, July 14, 2004
Attachment A – Groundwater Monitoring and Sampling Report, August 17, 2004

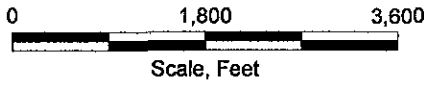
- cc: Karen Petryna, Shell Oil Products US, Carson
Chuck Headlee, RWQCB - San Francisco Bay Region, Oakland
Livermore-Pleasanton Fire Department, Livermore



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



QUADRANGLE LOCATION



Scale, Feet

FIGURE 1
 SITE LOCATION MAP

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

PROJECT NO. SJ45-30L-1 2004	DRAWN BY VF 9/26/03
FILE NO. SJ45-30L-1.2004	PREPARED BY VF
REVISION NO.	REVIEWED BY



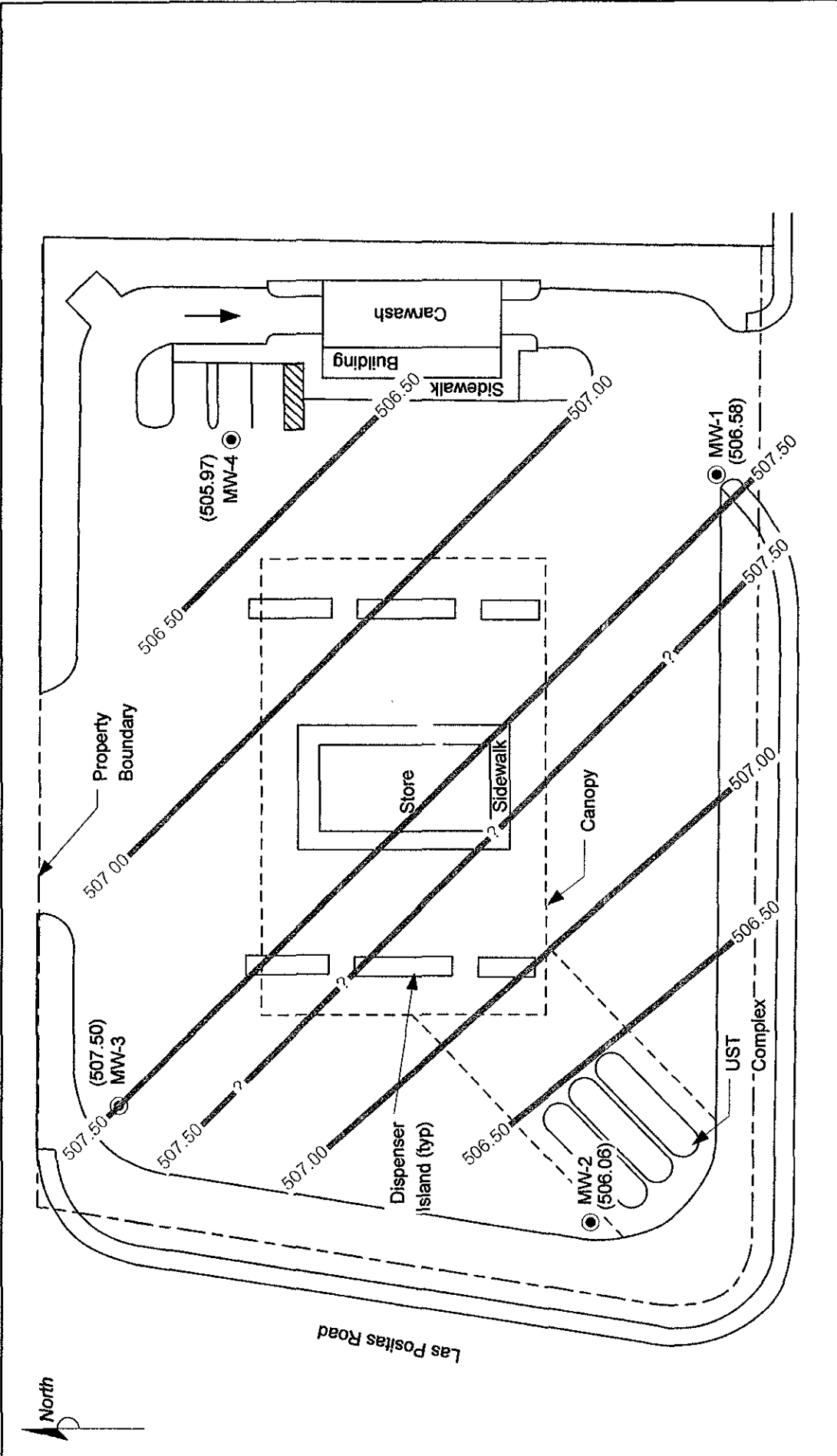


FIGURE 2

GROUNDWATER ELEVATION CONTOUR MAP, JULY 14, 2004

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

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

North First

0 40 FT

APPROX. SCALE

LEGEND

MW-2 ● GROUNDWATER MONITORING WELL

(507.22) GROUNDWATER ELEVATION (FEET-MSL), 7/14/04

506.50 GROUNDWATER ELEVATION CONTOUR

--- APPROXIMATE GROUNDWATER FLOW DIRECTION



Attachment A

GROUNDWATER MONITORING AND SAMPLING REPORT

BLAINE
TECH SERVICES INC

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

August 17, 2004

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

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

Monitoring performed on July 14, 2004

Groundwater Monitoring Report **040714-AC-3**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purge water (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. 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/ks

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-1	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	519.86	13.04	506.82
MW-1	07/14/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	519.86	13.28	506.58
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-2	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	518.50	11.91	506.59
MW-2	07/14/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	518.50	12.44	506.06
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

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-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
MW-3	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	518.93	11.34	507.59
MW-3	07/14/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	518.93	11.43	507.50
MW-4	11/06/2001	NA	<0.50	<0.50	<0.50	<0.50	16.0	<2.0	<2.0	<2.0	<5.0	NA	NA	NA
MW-4	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	470	<2.0	<2.0	<2.0	<5.0	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	<5.0	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	<5.0	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
MW-4	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	519.44	13.36	506.08
MW-4	07/14/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	519.44	13.47	505.97

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)
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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 = Di-isopropyl ether, analyzed by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

Notes:

Survey data provided by KHM Environmental Management, Inc.

Blaine Tech Services, Inc.

July 29, 2004

1680 Rogers Avenue
San Jose, CA 95112-1105
Attn.: Leon Gearhart
Project#: 040714-AC3
Project: 97464710
Site: 4530 Las Positas Rd., Livermore

Dear Mr. Gearhart,

Attached is our report for your samples received on 07/15/2004 13:50
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
08/29/2004 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

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: 040714-AC3

97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	07/14/2004 15:58	Water	1
MW-2	07/14/2004 16:16	Water	2
MW-3	07/14/2004 16:40	Water	3
MW-4	07/14/2004 17:00	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: 040714-AC3
97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-1	Lab ID: 2004-07-0495 - 1
Sampled: 07/14/2004 15:58	Extracted: 7/27/2004 16:22
Matrix: Water	QC Batch#: 2004/07/27-1C.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/27/2004 16:22	
Benzene	ND	0.50	ug/L	1.00	07/27/2004 16:22	
Toluene	ND	0.50	ug/L	1.00	07/27/2004 16:22	
Ethylbenzene	ND	0.50	ug/L	1.00	07/27/2004 16:22	
Total xylenes	ND	1.0	ug/L	1.00	07/27/2004 16:22	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	07/27/2004 16:22	
Ethanol	ND	50	ug/L	1.00	07/27/2004 16:22	
Surrogate(s)						
1,2-Dichloroethane-d4	104.4	76-130	%	1.00	07/27/2004 16:22	
Toluene-d8	107.7	78-115	%	1.00	07/27/2004 16:22	

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

07/28/2004 17:06

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: 040714-AC3

97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-2	Lab ID:	2004-07-0495 - 2
Sampled:	07/14/2004 16:16	Extracted:	7/28/2004 14:33
Matrix:	Water	QC Batch#:	2004/07/28-1B.62
Analysis Flag: ,gs (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/28/2004 14:33	
Benzene	ND	0.50	ug/L	1.00	07/28/2004 14:33	
Toluene	ND	0.50	ug/L	1.00	07/28/2004 14:33	
Ethylbenzene	ND	0.50	ug/L	1.00	07/28/2004 14:33	
Total xylenes	ND	1.0	ug/L	1.00	07/28/2004 14:33	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	07/28/2004 14:33	
Ethanol	ND	50	ug/L	1.00	07/28/2004 14:33	
Surrogate(s)						
1,2-Dichloroethane-d4	112.2	76-130	%	1.00	07/28/2004 14:33	
Toluene-d8	102.5	78-115	%	1.00	07/28/2004 14:33	

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: 040714-AC3
97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-3	Lab ID: 2004-07-0495 - 3
Sampled: 07/14/2004 16:40	Extracted: 7/28/2004 09:46
Matrix: Water	QC Batch#: 2004/07/28-1B.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/28/2004 09:46	
Benzene	ND	0.50	ug/L	1.00	07/28/2004 09:46	
Toluene	ND	0.50	ug/L	1.00	07/28/2004 09:46	
Ethylbenzene	ND	0.50	ug/L	1.00	07/28/2004 09:46	
Total xylenes	ND	1.0	ug/L	1.00	07/28/2004 09:46	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	07/28/2004 09:46	
Ethanol	ND	50	ug/L	1.00	07/28/2004 09:46	
Surrogate(s)						
1,2-Dichloroethane-d4	121.1	76-130	%	1.00	07/28/2004 09:46	
Toluene-d8	99.4	78-115	%	1.00	07/28/2004 09:46	

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: 040714-AC3

97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-4	Lab ID:	2004-07-0495 - 4
Sampled:	07/14/2004 17:00	Extracted:	7/27/2004 13:02
Matrix:	Water	QC Batch#:	2004/07/27-1C.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/27/2004 13:02	
Benzene	ND	0.50	ug/L	1.00	07/27/2004 13:02	
Toluene	ND	0.50	ug/L	1.00	07/27/2004 13:02	
Ethylbenzene	ND	0.50	ug/L	1.00	07/27/2004 13:02	
Total xylenes	ND	1.0	ug/L	1.00	07/27/2004 13:02	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	07/27/2004 13:02	
Ethanol	ND	50	ug/L	1.00	07/27/2004 13:02	
Surrogate(s)						
1,2-Dichloroethane-d4	107.7	76-130	%	1.00	07/27/2004 13:02	
Toluene-d8	109.1	78-115	%	1.00	07/27/2004 13:02	

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

07/28/2004 17:06

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: 040714-AC3
97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/07/27-1C.64-005

Water

Test(s): 8260B
QC Batch # 2004/07/27-1C.64
Date Extracted: 07/27/2004 08:05

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/27/2004 08:05	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	07/27/2004 08:05	
Benzene	ND	0.5	ug/L	07/27/2004 08:05	
Toluene	ND	0.5	ug/L	07/27/2004 08:05	
Ethylbenzene	ND	0.5	ug/L	07/27/2004 08:05	
Total xylenes	ND	1.0	ug/L	07/27/2004 08:05	
Ethanol	ND	50	ug/L	07/27/2004 08:05	
Surrogates(s)					
1,2-Dichloroethane-d4	110.8	76-130	%	07/27/2004 08:05	
Toluene-d8	105.4	78-115	%	07/27/2004 08:05	

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Project: 040714-AC3
97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B
Method Blank

Water

Test(s): 8260B

QC Batch # 2004/07/28-1B.62

MB: 2004/07/28-1B.62-001

Date Extracted: 07/28/2004 08:01

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	07/28/2004 08:01	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	07/28/2004 08:01	
Benzene	ND	0.5	ug/L	07/28/2004 08:01	
Toluene	ND	0.5	ug/L	07/28/2004 08:01	
Ethylbenzene	ND	0.5	ug/L	07/28/2004 08:01	
Total xylenes	ND	1.0	ug/L	07/28/2004 08:01	
Ethanol	ND	50	ug/L	07/28/2004 08:01	
Surrogates(s)					
1,2-Dichloroethane-d4	109.2	76-130	%	07/28/2004 08:01	
Toluene-d8	107.8	78-115	%	07/28/2004 08:01	

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

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97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2004/07/27-1C.64

LCS 2004/07/27-1C.64-051

Extracted: 07/27/2004

Analyzed: 07/27/2004 06:51

LCSD 2004/07/27-1C.64-013

Extracted: 07/27/2004

Analyzed: 07/27/2004 07:13

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	22.2	21.1	25	88.8	84.4	5.1	65-165	20		
Benzene	19.7	19.8	25	78.8	79.2	0.5	69-129	20		
Toluene	22.3	23.4	25	89.2	93.6	4.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	570	509	500	114.0	101.8		76-130			
Toluene-d8	526	561	500	105.2	112.2		78-115			

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Project: 040714-AC3
97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2004/07/28-1B.62

LCS 2004/07/28-1B.62-055

Extracted: 07/28/2004

Analyzed: 07/28/2004 08:55

LCSD 2004/07/28-1B.62-039

Extracted: 07/28/2004

Analyzed: 07/28/2004 07:39

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	21.0	21.0	25	84.0	84.0	0.0	65-165	20		
Benzene	24.6	25.1	25	98.4	100.4	2.0	69-129	20		
Toluene	27.8	26.8	25	111.2	107.2	3.7	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	515	514	500	103.0	102.8		76-130			
Toluene-d8	502	493	500	100.4	98.6		78-115			

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Project: 040714-AC3
97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD)

Water

QC Batch # 2004/07/27-1C.64

MW-4 >> MS

Lab ID: 2004-07-0495 - 004

MS: 2004/07/27-1C.64-024

Extracted: 07/27/2004

Analyzed: 07/27/2004 13:24

Dilution: 1.00

MSD: 2004/07/27-1C.64-046

Extracted: 07/27/2004

Analyzed: 07/27/2004 13:46

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	28.6	26.1	ND	25	114.4	104.4	9.1	69-129	20		
Toluene	34.9	30.4	ND	25	139.6	121.6	13.8	70-130	20	mso	
Methyl tert-butyl ether	31.1	30.4	ND	25	124.4	121.6	2.3	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	502	505		500	100.4	101.0		76-130			
Toluene-d8	557	516		500	111.4	103.2		78-115			

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Blaine Tech Services, Inc.

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San Jose, CA 95112-1105

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

Project: 040714-AC3

97464710

Received: 07/15/2004 13:50

Site: 4530 Las Positas Rd., Livermore

Legend and Notes

Sample Comment

Lab ID: 2004-07-0495 -2

gs-Siloxane peaks were found in the sample which are not believed to be gasoline related. If they were to be quantified as gasoline, the concentration would be 54 ug/L.

Result Flag

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference.
Precision and Accuracy were verified by LCS/LCSD.

Severn Trent Laboratories, Inc.

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

07/28/2004 17:06

LAB: STL

SHELL Chain Of Custody Record

87833

Lab Identification (if necessary)

Address

City, State, Zip

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRIME INVESTIGATION

Karen Petryna

2004-07-0495

INCIDENT NUMBER (B&E ONLY):

9 7 4 6 4 7 1 0

BAP or GRANT NUMBER (T/S/CRMT)

DATE: 7/14/04

PAGE: 1 of 1

SAMPLE COMPANY Blaino Tech Services ADDRESS 1680 Rogers Avenue, San Jose, CA 95112 PROJECT CONTACT (Name, Title, Phone) Leon Gearhart TELEPHONE: 408-573-0555 FAX: 408-573-7771 EMAIL: lgearhart@blainotech.com		CLIENT BTSS SITE ADDRESS (Street and City) 4530 Las Positas Rd., Livermore CITY/STATE/ZIP T0600194179 ECF DELIVERABLE TO (Photo or Site Photo of Employee) Garrett Haertel (408)224-4724 ghaertel@delteanv.com GENERAL MATTER REFERENCE NO. 040714-A BTS #	
TURNAROUND TIME (BUSINESS DAYS) <input checked="" type="checkbox"/> 10 DAYS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS <input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> LIST AGENCY:		REQUESTED ANALYSIS	

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BOPING _____ ALL _____

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

FIELD NOTES:
Container/Preservative
or PID Readings
or Laboratory Notes

3rd

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (0.0210 - 5ppb RL)	MTBE (0.0500 - 0.5ppb RL)	Oxygenates (5) by (0.2000)	StHxcs	TEMPERATURE ON RECEIPT OF
	DATE	TIME											
	MW-1	7/14/04	1558	W	3		K	K	A	A			
	MW-2	↓	1616	↓	3		K	A	A	A			
	MW-3	↓	1640	↓	3		K	K	A	A			
	MW-4	↓	1700	↓	3		K	K	A	A			

Released by (Signature) <i>[Signature]</i>	Received by (Signature) <i>[Signature]</i>	Date 7/15/04	Time 1350
Released by (Signature) <i>[Signature]</i>	Received by (Signature) <i>[Signature]</i>	Date 7/15/04	Time 1450

SHELL WELL MONITORING DATA SHEET

BTS #: <u>040714-PC3</u>	Site: <u>4530 Las Positas Rd., Livermore</u>
Sampler: <u>PC</u>	Date: <u>7/14/04</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>②</u> 3 4 6 8 _____
Total Well Depth (TD): <u>22.30</u>	Depth to Water (DTW): <u>13.28</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVB</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>15.08</u>	

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

$\frac{1.4 \text{ (Gals.)} \times 3}{1 \text{ Case Volume Specified Volumes}} = 4.2 \text{ Gals. Calculated Volume}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <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
1548	72.2	7.4	1300	21000	1.4	cloudy
1550	69.9	7.2	1290	21000	2.8	
1552	68.8	7.1	1293	21000	4.2	

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 7/14/04 Sampling Time: 1558 Depth to Water: 13.28

Sample I.D.: MW-1 Laboratory: DL Other _____

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: <u>040714-PC3</u>	Site: <u>4530 Las Positas Rd., Livermore</u>
Sampler: <u>PC</u>	Date: <u>7/14/04</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>②</u> 3 4 6 8 _____
Total Well Depth (TD): <u>22.77</u>	Depth to Water (DTW): <u>12.44</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PTD</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>14.51</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

$1.7 \text{ (Gals.)} \times 3 = 5.1 \text{ Gals.}$ I 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 μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1608	69.8	7.3	1144	7000	1.7	knowly
1610	69.1	7.4	1157	21000	3.4	↓
1612	68.8	7.2	1168	71000	5.1	

Did well dewater? Yes No Gallons actually evacuated: 2577 5.1

Sampling Date: 7/14 Sampling Time: 1616 Depth to Water: 12.57

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: <u>040714-PC3</u>	Site: <u>4530 Las Positas Rd., Livermore</u>
Sampler: <u>PC</u>	Date: <u>7/14/04</u>
Well I.D.: <u>MU-3</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>22.20</u>	Depth to Water (DTW): <u>11.43</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>VC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>13.58</u>	

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

Other: _____

<u>1.7</u> (Gals.) X <u>3</u> = <u>5.1</u> Gals.		
1 Case Volume	Specified Volumes	Calculated Volume

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
1629	70.3	7.4	1165	~1000	1.7	cloudy, brown
1630	69.7	7.4	1159	~1000	3.4	↓
1632	69.4	7.4	1158	~1000	5.1	↓

Did well dewater? Yes No Gallons actually evacuated: 5.1

Sampling Date: 7/14/04 Sampling Time: 1640 Depth to Water: 11.59

Sample I.D.: MU-3 Laboratory: STP Other _____

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: <u>040714-PC3</u>	Site: <u>4520 Las Positas Rd., Livermore</u>
Sampler: <u>PC</u>	Date: <u>7/14/04</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8 <u> </u>
Total Well Depth (TD): <u>22.55</u>	Depth to Water (DTW): <u>13.47</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PWC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>15.29</u>	

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

$\frac{1.4 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{4.2}{\text{Calculated Volume}} \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <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
1650	70.3	7.3	1279	2000	1.4	brown
1652	68.9	7.3	1284	21000	2.8	↓
1655	69.5	7.4	1282	21000	4.2	

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 7/14/04 Sampling Time: 1700 Depth to Water: 14.50

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

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

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