RO-2566

Delta
Environmental
Consultants, Inc.

Solving environment-related business problems worldwide

www.deltaenv.com

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San Jose, California 95119 USA

408.224.4724 800.477.7411
Fax 408.225.8506

October 22, 2004, 2004
Project No. SJ11-55P-1.2004

Ms. Bob Schultz
Alameda County Health Care Services Agency
Environmental Health Services – Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Quarterly Monitoring Report – Third Quarter 2004**
Shell-branded Service Station
1155 Portola Avenue
Livermore, California

Dear Mr. Schultz:

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 September 1, 2004. Depth to groundwater was measured in Wells MW-1 through MW-4. Groundwater elevation data and contours are 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 compounds); and methyl tert-butyl ether (MTBE) using EPA Method 8260B. 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

Depth to groundwater has increased by an average of 5.76 feet in site wells since last quarter. Depth to groundwater at the site typically fluctuates by about 11 feet annually. Well screens in Wells MW-1 through MW-4 are seasonally drowned by the rise and fall of the water table at the site. The groundwater gradient on September 1, 2004 was towards the northwest at a magnitude of 0.014 ft/ft. The groundwater gradient at the site has ranged between northwest and south-southwest since fourth quarter 2002 (initial gauging event).

MTBE was detected in Wells MW-1 and MW-2 at 4.7 micrograms per liter (ug/l) and 140 ug/l, respectively. MTBE concentrations remain below historic highs. TPH-G and BTEX compounds were below laboratory detection limits in all site wells.

REMARKS

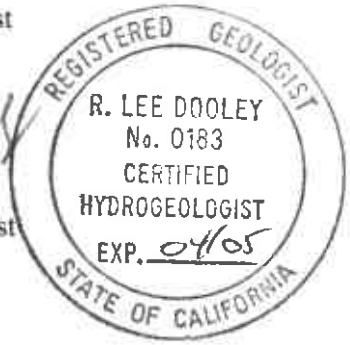
The information and recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. 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

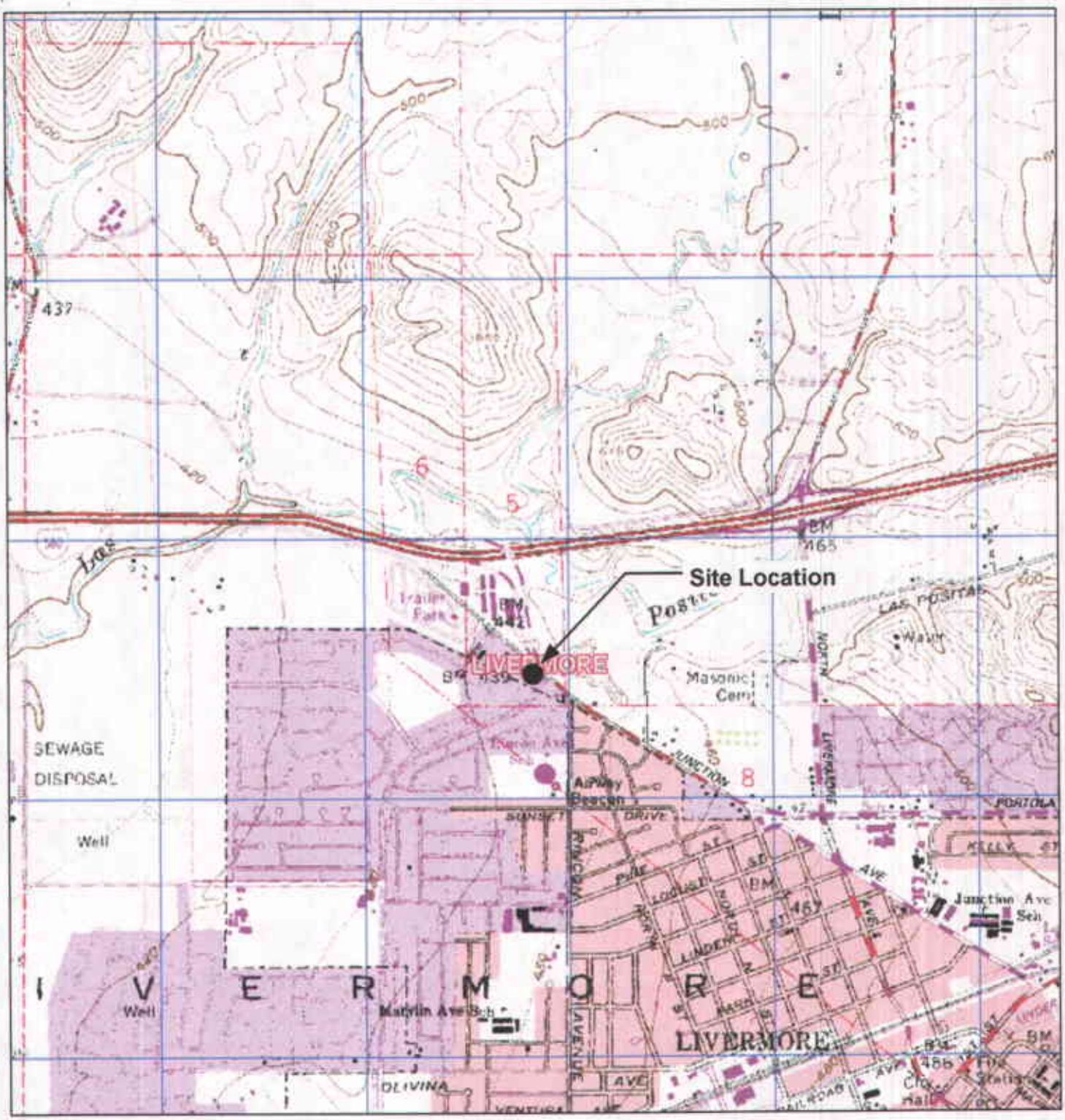
R. Lee Dooley
Senior Hydrogeologist
CHG 0183



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

Attachment A – Groundwater Monitoring and Sampling Report, October 12, 2004

cc: Karen Petryna, Shell Oil Products US, Carson
Danielle Stefani, Livermore-Pleasanton Fire Department, Livermore
Terrell & Kimberley Bass, Danville



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

North

QUADRANGLE LOCATION

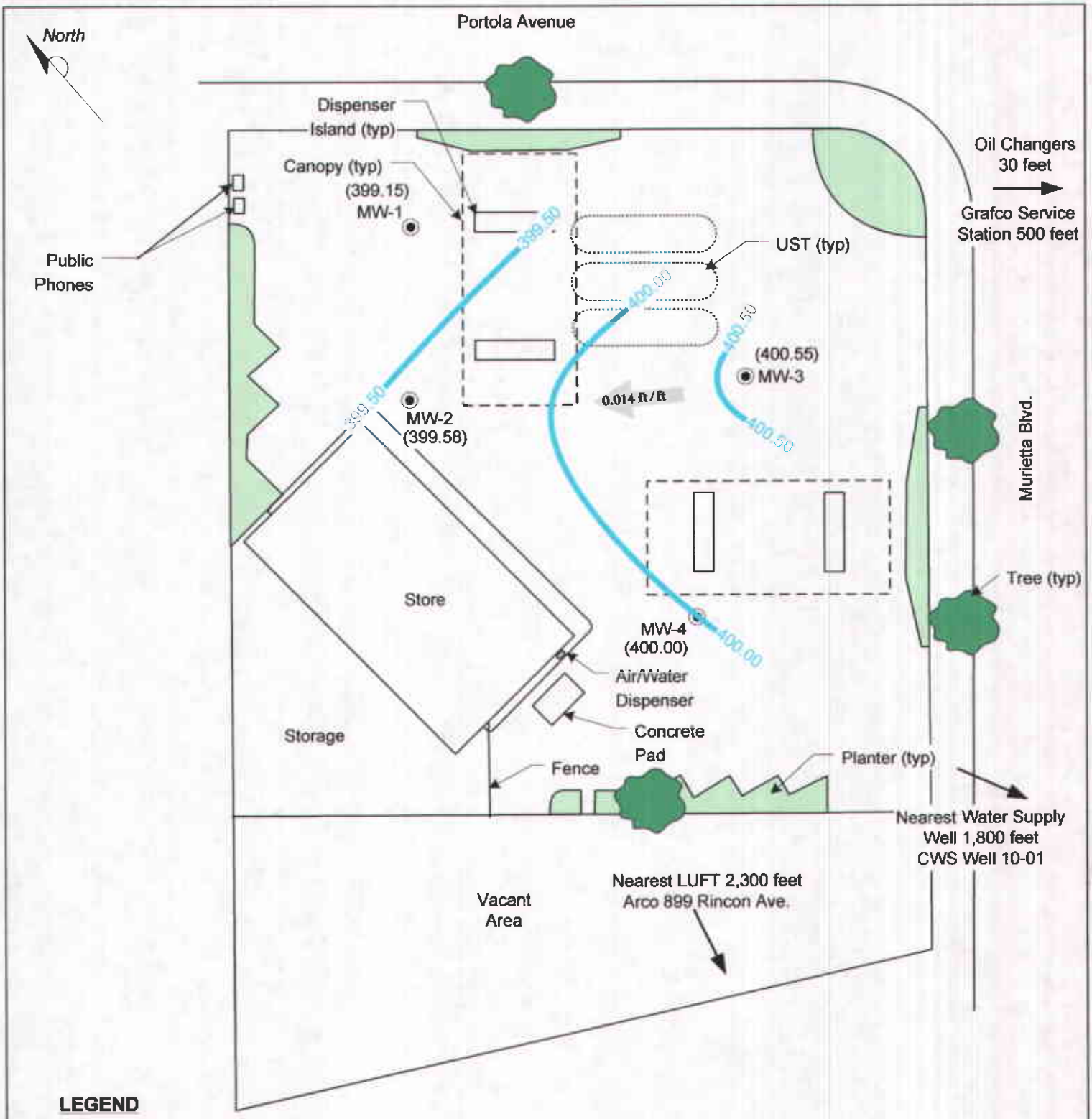
0 1,800 3,600
Scale, Feet

FIGURE 1
SITE LOCATION MAP

SHELL-BRANDED SERVICE STATION
1155 Portola Avenue
Livermore, California

PROJECT NO. SJ11-55P-1.000G	DRAWN BY VF 10/22/03
FILE NO. SJ11-55P-1.000G	PREPARED BY VF
REVISION NO.	REVIEWED BY

Delta
Environmental
Consultants, Inc.



LEGEND

MW-4 ◉ **GROUNDWATER MONITORING WELL**

(407.56) **GROUNDWATER ELEVATION (FEET - MSL), 9/1/04**

407.20 **GROUNDWATER ELEVATION CONTOUR**

0.02 ft/ft **APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT**

0 30 FT

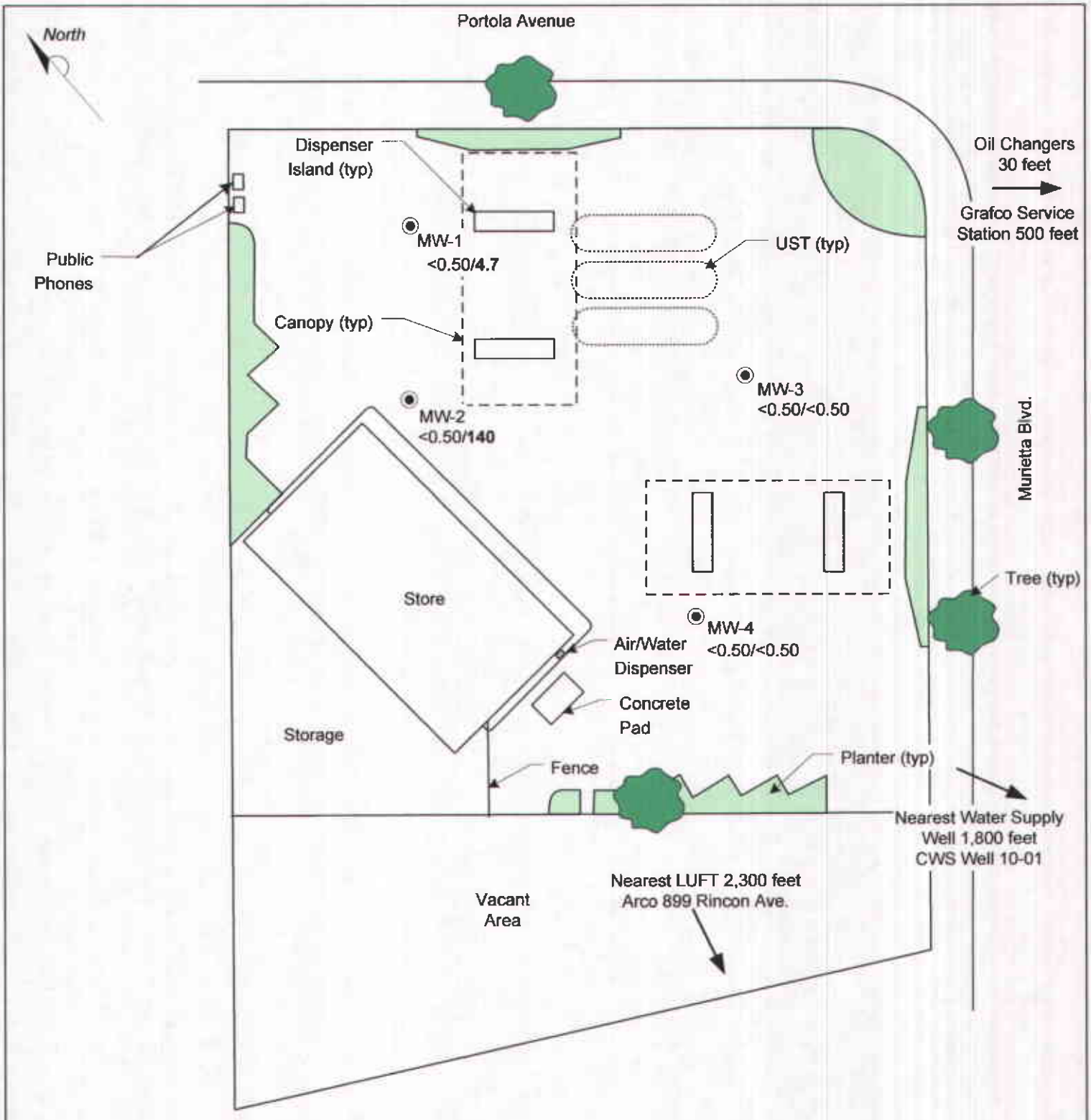
APPROX. SCALE

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP,
SEPTEMBER 1, 2004

SHELL-BRANDED SERVICE STATION
1155 Portola Avenue
Livermore, California

PROJECT NO. SJ11-55P-1.2004	DRAWN BY VF 10/22/03
FILE NO. SJ11-55P-1.2004	PREPARED BY VF
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



LEGEND

MW-4 ◉ **GROUNDWATER MONITORING WELL**

64/53 **BENZENE/MTBE CONCENTRATIONS (UG/L), 9/1/04**

0 30 FT

APPROX. SCALE

FIGURE 3
BENZENE AND MTBE CONCENTRATIONS MAP, SEPTEMBER 1, 2004

SHELL-BRANDED SERVICE STATION
1155 Portola Avenue
Livermore, California

PROJECT NO. SJ11-55P-1.2004	DRAWN BY VF 10/22/03
FILE NO. SJ11-55P-1.2004	PREPARED BY VF
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.

Attachment A

GROUNDWATER MONITORING AND SAMPLING REPORT

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

October 12, 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
1155 Portola Avenue
Livermore, CA

Monitoring performed on September 1, 2004

Groundwater Monitoring Report **040901-MG-1**

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

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

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

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. 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: Debbie Arnold
Delta Environmental
175 Bernal Road, Suite 200
San Jose, CA 95119

WELL CONCENTRATIONS
Shell-branded Service Station
1155 Portola Avenue
Livermore, CA

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Screened Interval (ft.)	GW Elevation (MSL)
MW-1	12/05/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.12	40-59	NA
MW-1	12/20/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	78	<2.0	<2.0	<2.0	<50	NA	38.40	40-59	NA
MW-1	03/28/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	7.0	<2.0	<2.0	<2.0	<5.0	443.81	36.25	40-59	407.56
MW-1	06/26/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	1.4	<2.0	<2.0	<2.0	<5.0	443.81	39.53	40-59	404.28
MW-1	08/25/2003	64	NA	<0.50	<0.50	<0.50	<1.0	53	<2.0	<2.0	<2.0	<5.0	443.81	42.52	40-59	401.29
MW-1	12/09/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	443.81	36.84	40-59	406.97
MW-1	03/08/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	3.9	<2.0	<2.0	<2.0	<5.0	443.81	31.75	40-59	412.06
MW-1	06/07/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	0.91	<2.0	<2.0	<2.0	<5.0	443.81	38.24	40-59	405.57
MW-1	**09/01/2004**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**4.7**	**NA**	**NA**	**NA**	**NA**	**443.81**	**44.66**	**40-59**	**399.15**
MW-2	12/05/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.57	40-60	NA
MW-2	12/20/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	190	<2.0	<2.0	<2.0	<50	NA	40.00	40-60	NA
MW-2	03/28/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	46	<2.0	<2.0	<2.0	<5.0	444.61	37.40	40-60	407.21
MW-2	06/26/2003	<500	<50	<5.0	<5.0	<5.0	<10	330	<20	<20	<20	<50	444.61	40.51	40-60	404.10
MW-2	08/25/2003	<500	NA	<5.0	<5.0	<5.0	<10	400	<20	<20	<20	<50	444.61	43.38	40-60	401.23
MW-2	12/09/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	27	<2.0	<2.0	<2.0	<5.0	444.61	37.92	40-60	406.69
MW-2	03/08/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	444.61	33.40	40-60	411.21
MW-2	06/07/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	85	<2.0	<2.0	<2.0	<5.0	444.61	39.18	40-60	405.43
MW-2	**09/01/2004**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**140**	**NA**	**NA**	**NA**	**NA**	**444.61**	**45.03**	**40-60**	**399.58**
MW-3	12/05/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.49	40-55	NA
MW-3	12/20/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	8.7	<2.0	<2.0	<2.0	<50	NA	36.00	40-55	NA
MW-3	03/28/2003	<50	56	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	443.84	36.47	40-55	407.37
MW-3	06/26/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	443.84	38.70	40-55	405.14
MW-3	08/25/2003	76 a	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	443.84	41.12	40-55	402.72
MW-3	12/09/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	443.84	37.27	40-55	406.57

WELL CONCENTRATIONS
Shell-branded Service Station
1155 Portola Avenue
Livermore, CA

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Screened Interval (ft.)	GW Elevation (MSL)
MW-3	03/08/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	120	<2.0	<2.0	<2.0	<5.0	443.84	32.49	40-55	411.35
MW-3	06/07/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	74	<2.0	<2.0	<2.0	<5.0	443.84	37.75	40-55	406.09
MW-3	**09/01/2004**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**443.84**	**43.29**	**40-55**	**400.55**
MW-4	12/05/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.45	41-61	NA
MW-4	12/20/2002	<50	61	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	40.61	41-61	NA
MW-4	03/28/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	444.18	37.16	41-61	407.02
MW-4	06/26/2003	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	444.18	40.05	41-61	404.13
MW-4	08/25/2003	67 a	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	444.18	43.04	41-61	401.14
MW-4	12/09/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	444.18	37.62	41-61	406.56
MW-4	03/08/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	444.18	32.80	41-61	411.38
MW-4	06/07/2004	58 b	NA	0.82	1.2	<0.50	1.1	<0.50	<2.0	<2.0	<2.0	<5.0	444.18	38.94	41-61	405.24
MW-4	**09/01/2004**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**444.18**	**44.18**	**41-61**	**400.00**

WELL CONCENTRATIONS
Shell-branded Service Station
1155 Portola Avenue
Livermore, CA

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Screened Interval (ft.)	GW Elevation (MSL)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B.
TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.
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 or Tertiary Butanol, 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:
a = Hydrocarbon does not match pattern of laboratory's standard.
b = Sample contains discrete peak in addition to gasoline.
Site surveyed November 25, 2002 by Mid Coast Engineers.

SEVERN TRENT STL

Submission#: 2004-09-0100

September 16, 2004

Blaine Tech Services, Inc.

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 040901-MG1
Project: 97495539
Site: 1155 Portola Ave., Livermore

Dear Mr.Gearhart,

Attached is our report for your samples received on 09/02/2004 13:55
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 10/17/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions,

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

Sincerely,

Melissa Brewer

Melissa Brewer
Project Manager

SEVERN TRENT STL

Submission: 2004-09-0100

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	09/01/2004 10:02	Water	1
MW-2	09/01/2004 11:05	Water	2
MW-3	09/01/2004 10:33	Water	3
MW-4	09/01/2004 11:42	Water	4

SEVERN TRENT STL

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**MW-1**	Lab ID:	2004-09-0100 - 1
Sampled:	09/01/2004 10:02	Extracted:	9/13/2004 12:43
Matrix:	Water	QC Batch#:	2004/09/13-1C.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/13/2004 12:43	
Benzene	ND	0.50	ug/L	1.00	09/13/2004 12:43	
Toluene	ND	0.50	ug/L	1.00	09/13/2004 12:43	
Ethylbenzene	ND	0.50	ug/L	1.00	09/13/2004 12:43	
Total xylenes	ND	1.0	ug/L	1.00	09/13/2004 12:43	
Methyl tert-butyl ether (MTBE)	4.7	0.50	ug/L	1.00	09/13/2004 12:43	
Surrogate(s)						
1,2-Dichloroethane-d4	99.0	76-130	%	1.00	09/13/2004 12:43	
Toluene-d8	97.9	78-115	%	1.00	09/13/2004 12:43	

SEVERN TRENT STL

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-2**
Sampled: 09/01/2004 11:05
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0100 - 2
Extracted: 9/13/2004 13:02
QC Batch#: 2004/09/13-1C.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/13/2004 13:02	
Benzene	ND	0.50	ug/L	1.00	09/13/2004 13:02	
Toluene	ND	0.50	ug/L	1.00	09/13/2004 13:02	
Ethylbenzene	ND	0.50	ug/L	1.00	09/13/2004 13:02	
Total xylenes	ND	1.0	ug/L	1.00	09/13/2004 13:02	
Methyl tert-butyl ether (MTBE)	140	0.50	ug/L	1.00	09/13/2004 13:02	
Surrogate(s)						
1,2-Dichloroethane-d4	100.8	76-130	%	1.00	09/13/2004 13:02	
Toluene-d8	98.5	78-115	%	1.00	09/13/2004 13:02	

SEVERN TRENT STL

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-3**
Sampled: 09/01/2004 10:33
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0100 - 3
Extracted: 9/13/2004 13:21
QC Batch#: 2004/09/13-1C.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/13/2004 13:21	
Benzene	ND	0.50	ug/L	1.00	09/13/2004 13:21	
Toluene	ND	0.50	ug/L	1.00	09/13/2004 13:21	
Ethylbenzene	ND	0.50	ug/L	1.00	09/13/2004 13:21	
Total xylenes	ND	1.0	ug/L	1.00	09/13/2004 13:21	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	09/13/2004 13:21	
Surrogate(s)						
1,2-Dichloroethane-d4	98.8	76-130	%	1.00	09/13/2004 13:21	
Toluene-d8	94.0	78-115	%	1.00	09/13/2004 13:21	

SEVERN TRENT STL

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-4**
Sampled: 09/01/2004 11:42
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0100 - 4
Extracted: 9/13/2004 13:40
QC Batch#: 2004/09/13-1C.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/13/2004 13:40	
Benzene	ND	0.50	ug/L	1.00	09/13/2004 13:40	
Toluene	ND	0.50	ug/L	1.00	09/13/2004 13:40	
Ethylbenzene	ND	0.50	ug/L	1.00	09/13/2004 13:40	
Total xylenes	ND	1.0	ug/L	1.00	09/13/2004 13:40	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	09/13/2004 13:40	
Surrogate(s)						
1,2-Dichloroethane-d4	106.3	76-130	%	1.00	09/13/2004 13:40	
Toluene-d8	106.4	78-115	%	1.00	09/13/2004 13:40	

SEVERN TRENT STL

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/09/13-1C.68-027

Water

Test(s): 8260B
QC Batch # 2004/09/13-1C.68
Date Extracted: 09/13/2004 07:27

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	09/13/2004 07:27	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	09/13/2004 07:27	
Benzene	ND	0.5	ug/L	09/13/2004 07:27	
Toluene	ND	0.5	ug/L	09/13/2004 07:27	
Ethylbenzene	ND	0.5	ug/L	09/13/2004 07:27	
Total xylenes	ND	1.0	ug/L	09/13/2004 07:27	
Surrogates(s)					
1,2-Dichloroethane-d4	105.2	76-130	%	09/13/2004 07:27	
Toluene-d8	102.2	78-115	%	09/13/2004 07:27	

SEVERN TRENT STL

Gas/BTEX/MTBE 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: 040901-MG1
97495539

Received: 09/02/2004 13:55

Site: 1155 Portola Ave., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike | **Water** | **QC Batch # 2004/09/13-1C.68**

LCS 2004/09/13-1C.68-049 Extracted: 09/13/2004 Analyzed: 09/13/2004 06:49

LCSD 2004/09/13-1C.68-008 Extracted: 09/13/2004 Analyzed: 09/13/2004 07:08

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	22.5	22.7	25	90.0	90.8	0.9	65-165	20		
Benzene	23.4	26.1	25	93.6	104.4	10.9	69-129	20		
Toluene	22.3	23.1	25	89.2	92.4	3.5	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	440	432	500	88.0	86.4		76-130			
Toluene-d8	486	472	500	97.2	94.4		78-115			

LAB: STL

Lab Identification (if necessary):

Address:

City, State, Zip:

SHELL Chain Of Custody Record

888510

Shell Project Manager to be Invoiced:

- [x] SCIENCE & ENGINEERING
- [ ] TECHNICAL SERVICES
- [ ] CRMT HOUSTON

Karen Petryna

2004-09-0100

INCIDENT NUMBER (S&E ONLY): 9 7 4 9 5 5 3 9

SAP or CRMT NUMBER (TS/CRMT):

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services	LOG CODE: BTSS	SITE ADDRESS (Street and City): 1155 Portola Ave., Livermore
GLOBAL ID NO.: pending		
ADDRESS: 680 Rogers Avenue, San Jose, CA 95112	EDF DELIVERABLE TO (Responsible Party or Designee): Debbie Arnold	PHONE NO.: (408)224-4724
E-MAIL: darnold@khm1.com	CONSULTANT PROJECT NO.: BTS # 040901-MG1	
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart	SAMPLER NAME(S) (Print): Morgan Gillies	LAB USE ONLY
TELEPHONE: 408-573-0555	FAX: 408-573-7771	E-MAIL: lgearhart@blainetech.com

TURNAROUND TIME (BUSINESS DAYS): [x] 10 DAYS [ ] 5 DAYS [ ] 72 HOURS [ ] 48 HOURS [ ] 24 HOURS [ ] LESS THAN 24 HOURS

[ ] LA - RWQCB REPORT FORMAT [ ] UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST ____ HIGHEST per BORING ____ ALL ____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS **NOT** NEEDED [ ]

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	MW-1	9/1/04	1002	GW	3	X	X		X		
	MW-2	↓	1105	↓	↓	X	X		X		
	MW-3		1033			X	X		X		
	MW-4	↓	1142	↓	↓	X	X		X		

TEMPERATURE ON RECEIPT C°: 5

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	[signature]	9/2/04	1355
[signature] 9/1/04 1700	[signature]	9/2/04	17:03

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

WELLHEAD INSPECTION CHECKLIST

Client Shell Date 9/1/04

Site Address 1155 Portola Ave., Livermore

Job Number 040901-M61 Technician MG

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							X
MW-2								
MW-3	X							
MW-4	X							

NOTES:

WELL GAUGING DATA

Project # 040901-MG1 Date 9/1/04 Client Shell

Site 1155 Portola Ave., 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					44.66	59.03		
MW-2	2					45.03	59.13		
MW-3	2					43.29	54.38		
MW-4	2					44.18	59.00		

SHELL WELL MONITORING DATA SHEET

BTS #: 040901-MG1	Site: 1155 Portola Ave.
Sampler: MG	Date: 9/1/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 59.03	Depth to Water (DTW): 44.66
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]: 47.53	

Purge Method: Bailer (14.37) / Disposable Bailer / X Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: X Bailer / 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	radius² * 0.163

2.3 (Gals.) X 3 = 6.9 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
9:47	67.7	6.7	935	71000	2.5	
9:50	68.2	6.5	917	71000	5	
9:53	68.2	6.6	919	71000	7	

Did well dewater? Yes (No) Gallons actually evacuated: 7

Sampling Date: 9/1/04 Sampling Time: 1002 Depth to Water: 44.37 JJ

Sample I.D.: MW-1 Laboratory: (STL) Other ____

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other:

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 #: 040901-MG-1	Site: 1155 Portola Ave.
Sampler: MG	Date: 9/1/04
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 59.13	Depth to Water (DTW): 45.03
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]: 47.85	

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: _____

2.3 (Gals.) X 3 = 6.8 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
10:51	70.2	6.7	896	meter malfunction	2.5	
10:55	69.2	6.7	894	↓	5	
10:58	69.0	6.7	898	↓	7	

Did well dewater? Yes (No) Gallons actually evacuated: 7

Sampling Date: 9/1/04 Sampling Time: 1105 Depth to Water: 45.05

Sample I.D.: MW-2 Laboratory: (STL) Other_____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

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 #: 040901-MG-1	Site: 1155 Portola Ave.
Sampler: MG	Date: 9/1/04
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 54.38	Depth to Water (DTW): 43.29
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 11.09 x 0.20) + DTW]:	45.50

Purge Method: Bailer / Disposable Bailer / X Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: X Bailer / 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	radius² * 0.163

1.8 (Gals.) X 3 = 5.4 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1024	69.8	6.6	1036	>1,000	2	Brown
1026	70.0	6.6	1036	>1,000	4	
0028	70.0	6.6	1034	>1,000	6	

Did well dewater? Yes (No) Gallons actually evacuated: 6

Sampling Date: 9/1/04 Sampling Time: 1033 Depth to Water: 43.38

Sample I.D.: MW-3 Laboratory: (STL) Other ____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

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 #: 040901 - MG1	Site: 1155 Portola Ave.
Sampler: MS	Date: 9/1/04
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 59.00	Depth to Water (DTW): 44.18
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]: 47.14	

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: ____

2.4 (Gals.) X	3	=	7.2 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1129	71.0	6.9	1139	meter malfunction	2.5	
1132	70.6	7.0	1110	↓	5.0	
1135	70.4	7.0	1086	↓	7.5	

Did well dewater? Yes (No) Gallons actually evacuated: 7.5

Sampling Date: 9/1/04 Sampling Time: 1142 Depth to Water: 44.66

Sample I.D.: MW-4 Laboratory: (STL) Other ____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

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