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**Letter of Transmittal**

To:	Alameda County Environmental Health Services 1131 Harbor Bay Pkwy Alameda CA 94502	Date: 1/14/2004
		Job No: SJ67-50S-1.2004
Attn:	Mr. Scott Scery	

We are sending the following items:

Date	Copies	Description
15-Jan-04	1	<b>4Q03 Quarterly Monitoring, Sampling &amp; Remediation Status Report</b>
		<b>6750 Santa Rita Road</b>
		<b>Pleasanton, CA</b>
		<b>Incident No. 97464711</b>

These are transmitted:

For your information     For action specified below     For review and comment     For your use     As requested

**RELEASER'S SIGNATURE**

Copies to: By: Garrett Haertel

Title: Project Engineer

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San Jose, California 95119 USA  
408.224.4724 800.477.7411  
Fax 408.225.8506

January 15, 2004  
Project No. SJ67-50S-1.2004

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

**Re: Fourth Quarter 2003 - Quarterly Monitoring, Sampling and Remediation Status Report**  
**Shell Service Station**  
**6750 Santa Rita Road**  
**Pleasanton, California**  
**Incident No. 97464711**

Dear Mr. Seery:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared the following fourth quarter 2003 groundwater monitoring and sampling report for the above referenced site. Groundwater sampling was performed by Blaine Tech Services (Blaine), at the direction of Delta, on October 3, 2003. A site location map is included as Figure 1.

#### **QUARTERLY GROUND WATER MONITORING PROGRAM**

Groundwater monitoring wells were gauged and sampled by Blaine on October 3, 2003. 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 submitted by Blaine to Severn Trent Laboratories, Inc. in Pleasanton, California for analysis for total purgeable petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and fuel oxygenates methyl tert-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butanol (TBA), 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.

#### **REMEDIATION SUMMARY**

Delta/Shell continued monthly groundwater batch extraction during the fourth quarter 2003. This remedial action was taken to address the presence of MTBE in groundwater. Groundwater was extracted from Wells MW-2 and MW-3 on October 28, November 24, and December 29, 2003 using a positive air displacement pump operated by Blaine. The purged groundwater was transported to the Shell refinery in Martinez, California for recycling. Approximately 492 gallons of groundwater were extracted during the fourth quarter 2003. The MTBE concentration in Well MW-3 continued to decrease from the historic high of 15,000 ug/l to 8,800 ug/l in the fourth quarter 2003.

#### **DISCUSSION**

Previous site data has indicated a groundwater flow direction to the south-southwest. The groundwater gradient on October 3, 2003 was toward the south-southeast at a magnitude of 0.01 feet/feet.

MTBE was detected in all site wells at concentrations ranging from 23 micrograms per liter to 8,800 ug/l. MTBE concentrations in Well MW-1 have reached a historic high of 810 ug/l. MTBE concentrations in Wells MW-2 and MW-4 remain below historic levels, while the MTBE concentration in Well MW-3 continues to decrease from a historic high of 15,000 ug/l. TBA concentrations in Wells MW-1, MW-2, and MW-3 have increased from last quarter to concentrations of 540 ug/l, 3,000 ug/l, and 6,600 ug/l, respectively.

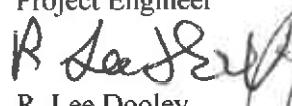
In the first quarter 2004 Blaine will gauge and sample site wells and tabulate the data. Groundwater batch extraction will continue in the first quarter of 2004. Delta will prepare a first quarter 2004 monitoring, sampling, and remediation status report.

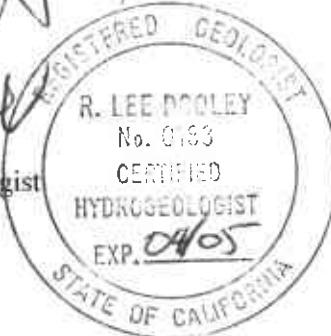
#### **REMARKS**

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 report.

Sincerely,  
**Delta Environmental Consultants, Inc.**

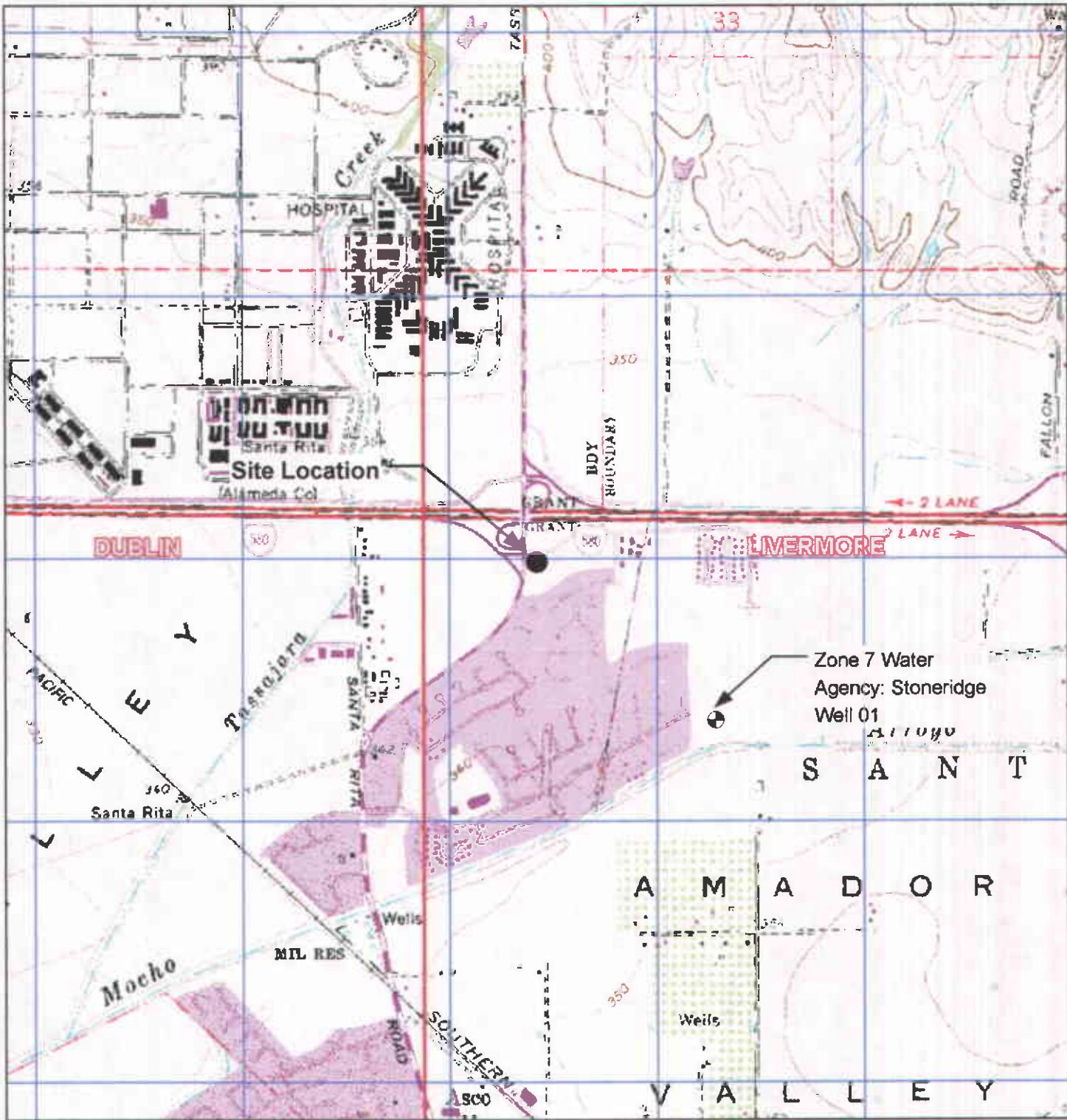
  
Garrett Haertel  
Project Engineer  
  
R. Lee Dooley  
Senior Hydrogeologist  
CHG 0183

  
REGISTERED GEOLOGIST  
R. LEE DOOLEY No. Q183  
CERTIFIED HYDROGEOLOGIST  
EXP. 04/05  
STATE OF CALIFORNIA

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

Attachment A – Groundwater Monitoring and Sampling Report, November 7, 2003

cc: Karen Petryna, Shell Oil Products US, Carson  
Betty Graham, Regional Water Quality Control Board, San Francisco Bay Region



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

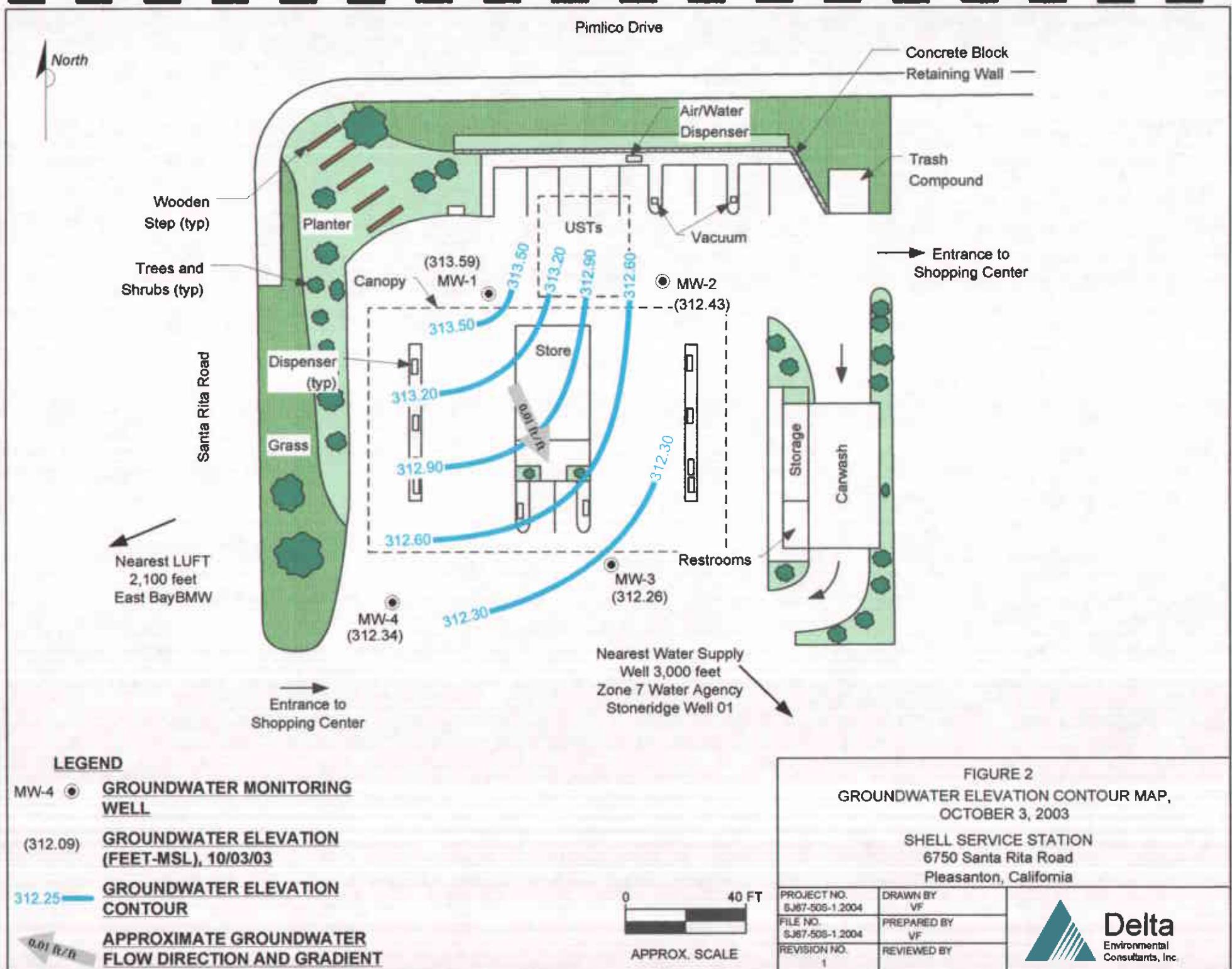


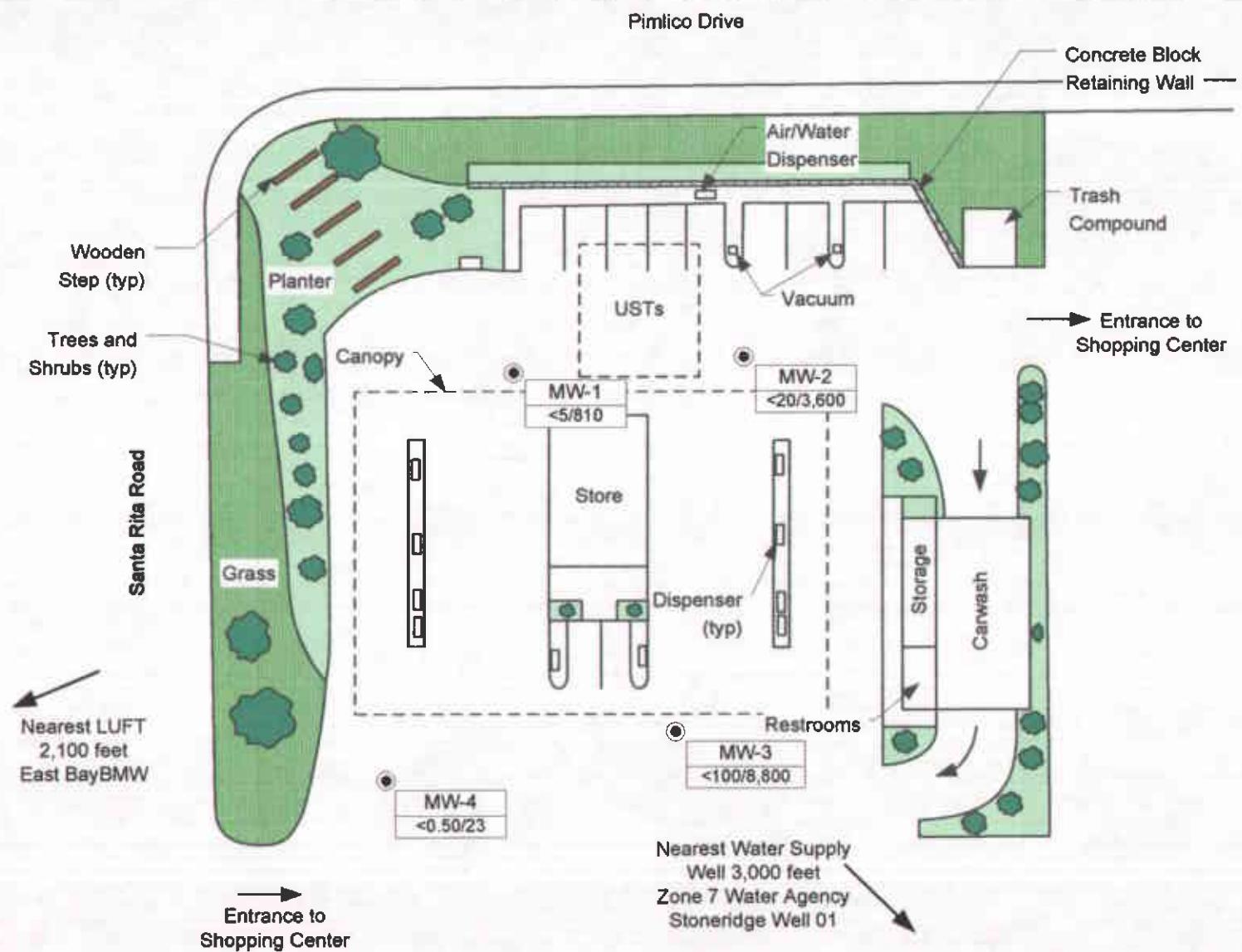
**FIGURE 1**  
**SITE LOCATION AND WELL SURVEY MAP**

**SHELL-BRANDED SERVICE STATION**  
6750 Santa Rita Road  
Pleasanton, California

PROJECT NO. SJ67-505-1.2004	DRAWN BY VF 12/04/03
FILE NO. SJ67-505-1.2004	PREPARED BY VF
REVISION NO.	REVIEWED BY







#### LEGEND

<b>MW-4</b>	● GROUNDWATER MONITORING WELL
<b>WELL ID</b>	
<b>BENZENE/MTBE CONCENTRATIONS (UG/L), 10/3/03</b>	
<b>&lt;0.50/75</b>	

0 40 FT  
APPROX. SCALE

FIGURE 3  
BENZENE AND MTBE CONCENTRATIONS MAP  
OCTOBER 3, 2003

SHELL SERVICE STATION  
6750 Santa Rita Road  
Pleasanton, California

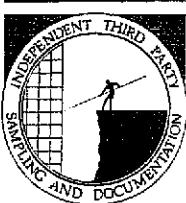
PROJECT NO. SJ67-503-1.2004	DRAWN BY VF
FILE NO. SJ67-503-1.2004	PREPARED BY VF
REVISION NO. 1	REVIEWED BY

**Attachment A**

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**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](http://www.blainetech.com)

November 7, 2003

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

Fourth Quarter 2003 Groundwater Monitoring at  
Shell-branded Service Station  
6750 Santa Rita Road  
Pleasanton, CA

Monitoring performed on July 31, August 29,  
September 23, October 3 and 28, 2003

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Groundwater Monitoring Report **031003-MD-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. 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: Debbie Arnold  
Delta Environmental  
175 Bernal Road, Suite 200  
San Jose, CA 95119

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6750 Santa Rita Road**  
**Pleasanton, 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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
---------	------	----------------	----------------	-------------	-------------	-------------	-------------	------------------------	--------------	----------------------------	--------------------------

MW-1	12/04/2002	NA	NA	NA	NA	NA	NA	NA	NA	31.75	NA
MW-1	12/22/2002	<50	81	<0.50	<0.50	<0.50	<0.50	62	NA	31.93	NA
MW-1	03/28/2003	<50	70	<0.50	<0.50	<0.50	<1.0	130	343.48	31.59	311.89
MW-1	05/09/2003	<250	NA	<2.5	<2.5	<2.5	<5.0	280	343.48	31.10	312.38
MW-1	06/30/2003	NA	NA	NA	NA	NA	NA	NA	343.48	31.65	311.83
MW-1	07/08/2003	<250	NA	<2.5	<2.5	<2.5	<5.0	160	343.48	30.90	312.58
MW-1	07/17/2003	NA	NA	NA	NA	NA	NA	NA	343.48	31.53	311.95
MW-1	07/31/2003	NA	NA	NA	NA	NA	NA	NA	343.48	29.95	313.53
MW-1	08/29/2003	NA	NA	NA	NA	NA	NA	NA	343.48	29.99	313.49
MW-1	09/23/2003	NA	NA	NA	NA	NA	NA	NA	343.48	30.02	313.46
MW-1	10/03/2003	<500	NA	<5.0	<5.0	<5.0	<10	810	343.48	29.89	313.59
MW-1	10/28/2003	NA	NA	NA	NA	NA	NA	NA	343.48	31.38	312.10

MW-2	12/04/2002	NA	NA	NA	NA	NA	NA	NA	NA	31.25	NA
MW-2	12/22/2002	<200	120	<2.0	<2.0	<2.0	<2.0	660	NA	30.70	NA
MW-2	03/28/2003	<2,500	60	<25	<25	<25	<50	4,200	342.86	30.30	312.56
MW-2	05/09/2003	<2,500	NA	<25	<25	<25	<50	4,000	342.86	29.83	313.03
MW-2	06/30/2003	NA	NA	NA	NA	NA	NA	NA	342.86	30.45	312.41
MW-2	07/08/2003	<2,000	NA	<20	<20	<20	<40	2,800	342.86	29.86	313.00
MW-2	07/17/2003	NA	NA	NA	NA	NA	NA	NA	342.86	30.33	312.53
MW-2	07/31/2003	NA	NA	NA	NA	NA	NA	NA	342.86	29.33	313.53
MW-2	08/29/2003	NA	NA	NA	NA	NA	NA	NA	342.86	29.98	312.88
MW-2	09/23/2003	NA	NA	NA	NA	NA	NA	NA	342.86	30.21	312.65
MW-2	10/03/2003	<2,000	NA	<20	<20	<20	<40	3,600	342.86	30.43	312.43
MW-2	10/28/2003	NA	NA	NA	NA	NA	NA	NA	342.86	29.79	313.07

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6750 Santa Rita Road**  
**Pleasanton, 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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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MW-3	12/04/2002	NA	NA	NA	NA	NA	NA	NA	NA	31.65	NA
MW-3	12/22/2002	<2,000	72	<20	<20	<20	<20	8,000	NA	31.10	NA
MW-3	03/28/2003	<5,000	89	<50	<50	<50	<100	10,000	342.23	30.76	311.47
MW-3	05/09/2003	11,000	NA	<100	<100	<100	<200	15,000	342.23	30.04	312.19
MW-3	06/30/2003	NA	NA	NA	NA	NA	NA	NA	342.23	30.23	312.00
MW-3	07/08/2003	<10,000	NA	<100	<100	<100	<200	9,500	342.23	30.11	312.12
MW-3	07/17/2003	NA	NA	NA	NA	NA	NA	NA	342.23	29.80	312.43
MW-3	07/31/2003	NA	NA	NA	NA	NA	NA	NA	342.23	29.94	312.29
MW-3	08/29/2003	NA	NA	NA	NA	NA	NA	NA	342.23	30.05	312.18
MW-3	09/23/2003	NA	NA	NA	NA	NA	NA	NA	342.23	29.95	312.28
MW-3	10/03/2003	<10,000	NA	<100	<100	<100	<200	8,800	342.23	29.97	312.26
MW-3	10/28/2003	NA	NA	NA	NA	NA	NA	NA	342.23	29.97	312.26

MW-4	12/04/2002	NA	NA	NA	NA	NA	NA	NA	NA	32.92	NA
MW-4	12/22/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	93	NA	32.20	NA
MW-4	03/28/2003	<50	67	<0.50	<0.50	<0.50	<1.0	2.4	343.44	32.07	311.37
MW-4	05/09/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	75	343.44	31.35	312.09
MW-4	06/30/2003	NA	NA	NA	NA	NA	NA	NA	343.44	31.42	312.02
MW-4	07/08/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	18	343.44	31.42	312.02
MW-4	07/17/2003	NA	NA	NA	NA	NA	NA	NA	343.44	31.20	312.24
MW-4	07/31/2003	NA	NA	NA	NA	NA	NA	NA	343.44	31.05	312.39
MW-4	08/29/2003	NA	NA	NA	NA	NA	NA	NA	343.44	31.20	312.24
MW-4	09/23/2003	NA	NA	NA	NA	NA	NA	NA	343.44	31.15	312.29
MW-4	10/03/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	23	343.44	31.10	312.34
MW-4	10/28/2003	NA	NA	NA	NA	NA	NA	NA	343.44	31.14	312.30

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6750 Santa Rita Road**  
**Pleasanton, 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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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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

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:

Site surveyed November 22, 2002, by Mid Coast Engineers.

Blaine Tech Services, Inc.

October 17, 2003

1680 Rogers Avenue  
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 031003-MD3

Project: 97464711

Site: 6750 Santa Rita Rd., Pleasanton

Dear Mr. Gearhart,

Attached is our report for your samples received on 10/06/2003 17:00

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  
11/20/2003 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](mailto:vvancil@stl-inc.com)

Sincerely,



Vincent Vancil  
Project Manager

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](http://www.stl-inc.com) \* CA DHS ELAP# 2496

**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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	10/03/2003 16:30	Water	1
MW-2	10/03/2003 16:35	Water	2
MW-3	10/03/2003 16:45	Water	3
MW-4	10/03/2003 15:10	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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

Prep(s): 5030B

Sample ID: MW-1

Sampled: 10/03/2003 16:30

Matrix: Water

Analysis Flag: o ( See Legend and Note Section )

Test(s): 8260FAB

Lab ID: 2003-10-0237 - 1

Extracted: 10/16/2003 11:42

QC Batch#: 2003/10/16-1C.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	500	ug/L	10.00	10/16/2003 11:42	
Benzene	ND	5.0	ug/L	10.00	10/16/2003 11:42	
Toluene	ND	5.0	ug/L	10.00	10/16/2003 11:42	
Ethylbenzene	ND	5.0	ug/L	10.00	10/16/2003 11:42	
Total xylenes	ND	10	ug/L	10.00	10/16/2003 11:42	
tert-Butyl alcohol (TBA)	540	50	ug/L	10.00	10/16/2003 11:42	
Methyl tert-butyl ether (MTBE)	810	5.0	ug/L	10.00	10/16/2003 11:42	
Di-isopropyl Ether (DIPE)	ND	20	ug/L	10.00	10/16/2003 11:42	
Ethyl tert-butyl ether (ETBE)	ND	20	ug/L	10.00	10/16/2003 11:42	
tert-Amyl methyl ether (TAME)	ND	20	ug/L	10.00	10/16/2003 11:42	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	107.9	76-130	%	10.00	10/16/2003 11:42	
Toluene-d8	97.7	78-115	%	10.00	10/16/2003 11:42	

## 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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-2

Lab ID: 2003-10-0237 - 2

Sampled: 10/03/2003 16:35

Extracted: 10/16/2003 14:17

Matrix: Water

QC Batch#: 2003/10/16-1C.62

Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	2000	ug/L	40.00	10/16/2003 14:17	
Benzene	ND	20	ug/L	40.00	10/16/2003 14:17	
Toluene	ND	20	ug/L	40.00	10/16/2003 14:17	
Ethylbenzene	ND	20	ug/L	40.00	10/16/2003 14:17	
Total xylenes	ND	40	ug/L	40.00	10/16/2003 14:17	
tert-Butyl alcohol (TBA)	3000	200	ug/L	40.00	10/16/2003 14:17	
Methyl tert-butyl ether (MTBE)	3600	20	ug/L	40.00	10/16/2003 14:17	
Di-isopropyl Ether (DIPE)	ND	80	ug/L	40.00	10/16/2003 14:17	
Ethyl tert-butyl ether (ETBE)	ND	80	ug/L	40.00	10/16/2003 14:17	
tert-Amyl methyl ether (TAME)	ND	80	ug/L	40.00	10/16/2003 14:17	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	111.6	76-130	%	40.00	10/16/2003 14:17	
Toluene-d8	99.5	78-115	%	40.00	10/16/2003 14:17	

## 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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-3

Lab ID: 2003-10-0237 - 3

Sampled: 10/03/2003 16:45

Extracted: 10/16/2003 14:40

Matrix: Water

QC Batch#: 2003/10/16-1C.62

Analysis Flag: o ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10000	ug/L	200.00	10/16/2003 14:40	
Benzene	ND	100	ug/L	200.00	10/16/2003 14:40	
Toluene	ND	100	ug/L	200.00	10/16/2003 14:40	
Ethylbenzene	ND	100	ug/L	200.00	10/16/2003 14:40	
Total xylenes	ND	200	ug/L	200.00	10/16/2003 14:40	
tert-Butyl alcohol (TBA)	6600	1000	ug/L	200.00	10/16/2003 14:40	
Methyl tert-butyl ether (MTBE)	8800	100	ug/L	200.00	10/16/2003 14:40	
Di-isopropyl Ether (DIPE)	ND	400	ug/L	200.00	10/16/2003 14:40	
Ethyl tert-butyl ether (ETBE)	ND	400	ug/L	200.00	10/16/2003 14:40	
tert-Amyl methyl ether (TAME)	ND	400	ug/L	200.00	10/16/2003 14:40	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	114.4	76-130	%	200.00	10/16/2003 14:40	
Toluene-d8	105.6	78-115	%	200.00	10/16/2003 14:40	

## 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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

Prep(s): 5030B

Test(s): 8260FAB

Sample ID: MW-4

Lab ID: 2003-10-0237 - 4

Sampled: 10/03/2003 15:10

Extracted: 10/16/2003 15:24

Matrix: Water

QC Batch#: 2003/10/16-1C.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/16/2003 15:24	
Benzene	ND	0.50	ug/L	1.00	10/16/2003 15:24	
Toluene	ND	0.50	ug/L	1.00	10/16/2003 15:24	
Ethylbenzene	ND	0.50	ug/L	1.00	10/16/2003 15:24	
Total xylenes	ND	1.0	ug/L	1.00	10/16/2003 15:24	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/16/2003 15:24	
Methyl tert-butyl ether (MTBE)	23	0.50	ug/L	1.00	10/16/2003 15:24	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	10/16/2003 15:24	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	10/16/2003 15:24	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	10/16/2003 15:24	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	110.0	76-130	%	1.00	10/16/2003 15:24	
Toluene-d8	106.0	78-115	%	1.00	10/16/2003 15:24	

## 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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

## Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Method Blank

Water

QC Batch # 2003/10/16-1C.62

MB: 2003/10/16-1C.62-014

Date Extracted: 10/16/2003 10:14

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/16/2003 10:14	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/16/2003 10:14	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/16/2003 10:14	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	10/16/2003 10:14	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	10/16/2003 10:14	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	10/16/2003 10:14	
Benzene	ND	0.5	ug/L	10/16/2003 10:14	
Toluene	ND	0.5	ug/L	10/16/2003 10:14	
Ethylbenzene	ND	0.5	ug/L	10/16/2003 10:14	
Total xylenes	ND	1.0	ug/L	10/16/2003 10:14	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	103.6	76-130	%	10/16/2003 10:14	
Toluene-d8	95.7	78-115	%	10/16/2003 10:14	

## 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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

## Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

## Laboratory Control Spike

## Water

QC Batch # 2003/10/16-1C.62

LCS 2003/10/16-1C.62-030

Extracted: 10/16/2003

Analyzed: 10/16/2003 09:30

LCSD 2003/10/16-1C.62-052

Extracted: 10/16/2003

Analyzed: 10/16/2003 09:52

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	24.4	20.8	25	97.6	83.2	15.9	65-165	20		
Benzene	23.0	21.4	25	92.0	85.6	7.2	69-129	20		
Toluene	23.9	21.9	25	95.6	87.6	8.7	70-130	20		
<i>Surrogates(s)</i>										
1,2-Dichloroethane-d4	521	496	500	104.2	99.2		76-130			
Toluene-d8	514	486	500	102.8	97.2		78-115			

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: 031003-MD3  
97464711

Received: 10/06/2003 17:00

Site: 6750 Santa Rita Rd., Pleasanton

---

Legend and Notes

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**Analysis Flag**

Reporting limits were raised due to high level of analyte present in the sample.

LAB: STC

## SHELL Chain Of Custody Record

78130

Lab Identification is necessary:

Addressee:

City, State, Zip:

## Shell Project Manager to be Invoiced:

- SCIENCE & ENGINEERING  
 TECHNICAL SERVICES  
 CRMT HOUSTRON

Karen Petryna

INCIDENT NUMBER (S&amp;E ONLY)

9 7 4 6 4 7 1 1

SAP or CRMT NUMBER (TS/CRMT)

DATE: 10/3/03PAGE: 1 of 12003-10-0237

Blaine Tech Services 1680 Rogers Avenue, San Jose, CA 95112		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>6750 Santa Rita Rd., Pleasanton</b>	STATE/COUNTY: <b>CA</b>	ZIP CODE: <b>94566</b>	POLICE: <b>pending</b>	CONSULTANT PROJECT NO.: <b>031003-MD3</b>	
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	EMAIL: <b>lgearhart@blainetech.com</b>	EDD DELIVERABLE (If Environmental Path or Designee): <b>Garrett Haertel</b>	PHONE NO.: <b>(408)224-4724</b>	EMAIL: <b>gheertel@deltanv.com</b>	LAB USE ONLY: <b>BTSS #</b>		
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED		<i>Johnathan De Jong</i>						
REQUESTED ANALYSIS								
LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TEST - Gas, Purgeable		FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes  <i>H. H C</i>
		DATE	TIME			BTEX	MTBE (8021B + Appb RL)	
	MW-1	10/3/03	40	3	✓	✓	✓	
	MW-2	1635		3	✓	✓	✓	
	MW-3	1645		3	✓	✓	✓	
	MW-4	1510	+	3	✓	✓	✓	
								TEMPERATURE ON RECEIPT C°: <i>44</i>
Received by (Signature): <i>John De Jong</i>		Received by (Signature): <i>D. May</i>		Date: <u>10/6/03</u>	Time: <u>1320</u>			
Received by (Signature): <i>Deuse Harrington / STC-SF</i>		Received by (Signature): <i>Deuse Harrington / STC-SF</i>		Date: <u>10/6/03</u>	Time: <u>1700</u>			
Released by (Signature): <i>John De Jong 10/6/03 1700</i>		Released by (Signature): <i>D. May</i>						
Released by (Signature): <i>Deuse Harrington / STC-SF</i>		Released by (Signature): <i>Deuse Harrington / STC-SF</i>						

## **WELLHEAD INSPECTION CHECKLIST**

Page 1 of 1

Client 97464711 Date 10/28/03

Date 10/28/03

Site Address ~~6750~~ 6750 Santa Rita Rd., Pleasanton

Job Number 031028-MD) Technician John D. Ross

**NOTES:**

## **WELLHEAD INSPECTION CHECKLIST**

Page 1 of 1

Client 97464711 Date 10/3/03

Date 10/3/03

Site Address 6750 Santa Rita Rd., Pleasanton

Job Number 03/003-MD3 Technician Joha De Jonge

**NOTES:**

## **WELLHEAD INSPECTION CHECKLIST**

Page 1 of 1

Client 9746471 Date 9/23/03

Date 9/23/03

Site Address 6750 Santa Rita Rd., Pleasanton

Job Number 030923-14D1 Technician John De Jong

#### **NOTES:**

## SITE INSPECTION CHECKLIST

Client Shell Date 9/18/03  
Site Address 6750 Santa Rita Rd., Pleasanton, CA  
Job Number 030918-MG4 Technician MG  
Site Status Shell Branded Station Vacant Lot Other \_\_\_\_\_

- Inspected / Labeled / Cleaned - All Wells on Scope Of Work
- Inspected / Cleaned Components - All Other Identifiable Wells   N/A
- Inspected Site for Investigation Related Trip Hazards
- Addressed All Outstanding Wellhead Repair Order(s)   N/A
- Completed Repair Data Sheets(s)  N/A
- Inspected Treatment / Remediation System Compound For Security, Cleanliness and Appearance   N/A
- Inspected Vacant Lot for Signs of Habitation, Hazardous Materials or Terrain, Overgrown Vegetation and Security   N/A

PLEASE BE ADVISED THAT, UNLESS OTHERWISE INSTRUCTED, NO REPAIRS ARE PLANNED FOR THE ISSUES DESCRIBED BELOW

Outstanding Problems / Comments <small>(In addition to other issues, note all SOW wellboxes that, by design, are not securable)</small>

PROJECT COORDINATOR ONLY

Checklist Reviewed	Initials/Date	Notes
<u>LG</u>	<u>9/22/03</u>	

## REPAIR DATA SHEET

Page 1 of 1Client ShellDate 9/18/03Site Address 6750 Santa Rita Rd., Pleasanton, CAJob Number D30918-MG4 Technician MB

Repair Location	<u>MW -1</u>
Deficiencies Corrected	<u>Rim seal broken</u> <u>Added new Gasket</u>
Materials Used	<u>Gasket</u>

Repair Location	<u>MW -3</u>
Deficiencies Corrected	<u>Rim seal damaged</u> <u>Added new gasket</u>
Materials Used	<u>Gasket</u>

Repair Location	
Deficiencies Corrected	
Materials Used	

Repair Location	
Deficiencies Corrected	
Materials Used	

Repair Location	
Deficiencies Corrected	
Materials Used	

Repair Location	
Deficiencies Corrected	
Materials Used	

## WELL GAUGING DATA

Project # 031028-MSS Date 10/28/03 Client 97464711

Site 6750 Santa Rita Rd., Pleasanton

# SHELL WELL MONITORING DATA SHEET

BTS #: MW-2 031028-MJ)	Site: 97464711		
Sampler: John DeJong	Date: 10/28/03		
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8		
Total Well Depth (TD): 41.75	Depth to Water (DTW): 29.75		
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]:			

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible

Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing

<i>overpurge 2 hrs (or 20% of truck capacity)</i>		Other:	
Well Diameter	Multipier	Well Diameter	Multipier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

(Gals.) X Specified Volumes = Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
13:30	Began purging	2	15 gpm			DTW = 29.75
14:20					15	mw1 = 29.85 mw3 = 30.87 mw2 = 38.61 mw4 = 31.05
14:50			5 sec	purging to 2.5 gpm	30	mw1 = 29.72 mw3 = 30.12 mw2 = 39.21 mw4 = 30.92
15:20					37.5	mw1 = 29.95 mw3 = 30.12 mw2 = 37.11 mw4 = 31.03
15:50					45	mw1 = 29.91 mw3 = 30.02 mw2 = 39.41 mw4 = 30.03

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: 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 #: 031028-MJ1	Site: 97464711
Sampler: John De Jong	Date: 10/28/03
Well I.D.: MW-3	Well Diameter: ② 3 4 6 8
Total Well Depth (TD): 43.91	Depth to Water (DTW): 29.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer  
 Disposable Bailer  
~~Positive Air Displacement~~  
 Electric Submersible

Waterm Peristaltic Extraction Pump Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port Dedicated Tubing

Over-purge Gals (or 80% capacity of truck trailer)		Other:	
1 Case Volume (Gals.) X Specified Volumes	= Calculated Volume	Well Diameter	Multiplier
		1"	0.04
		2"	0.16
		3"	0.37
		4"	0.65
		6"	1.47
		Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	DTW	Observations
7:45		8.5	1000	Purging @ 15 gpm	—	29.97	
8:15					15	MW-1 = 31.02 MW-3 = 30.12	MW-2 = 24.42 MW-4 = 31.12
8:45					30	MW-1 = 30.75 MW-3 = 31.12	MW-2 = 29.42 MW-4 = 31.12
9:15				Slowed purge to 2.5 gpm	45	MW-1 = 30.53 MW-3 = 31.01	MW-2 = 29.42 MW-4 = 31.12
9:45					52.5	MW-1 = 30.55 MW-3 = 38.41	MW-2 = 29.35 MW-4 = 31.12

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: Laboratory: STS 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

## WELL DEVELOPMENT DATA SHEET

*On top of*

Well I.D.	PAGE 2 OF 2
Project #: 031028- <del>W01</del>	Client: 97464711

overpage of MW-3

## WELL GAUGING DATA

Project# 031003-MD3 Date 10/3/03 Client 97464711

Site 6750 Santa Rita Rd., Pleasanton

# SHELL WELL MONITORING DATA SHEET

BTS #: 031003-MD3	Site: 97464711
Sampler: John D. Long	Date: 10/3/03
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 44.00	Depth to Water (DTW): 29.84
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]: 32.71	

Purge Method: Bailei  
 Disposable Bailei  
 Positive Air Displacement  
 Electric Submersible

Waterma Sampling Method: Bailei  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Disposable Bailei  
 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 <sup>2</sup> * 0.163

$$\frac{7.3 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = \frac{6.9 \text{ Gals.}}{\text{Specified Volumes}} \quad \text{Calculated Volume}$$

Time	Temp (°F)	pH	Cond. (mS or $\mu\text{S}$ )	Turbidity (NTUs)	Gals. Removed	Observations
1529	68.5	7.2	2597	>200	2.3	Partly cloudy, slight gas odor
1532	67.7	7.3	2634	>200	4.6	
1534	66.8	7.1	2658	>200	6.9	
						DTW = 32.71

Did well dewater? Yes  No Gallons actually evacuated: 6.9

Sampling Date: 10/3/03 Sampling Time: 1630 Depth to Water: 35.28

Sample I.D.: MW-1 Laboratory: STL Other: \_\_\_\_\_

Analyzed for: TPH-G  BTEX MTBE TPH-D Other:  0.015

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 #: 031003-M03	Site: 97464711
Sampler: John DeJong	Date: 10/3/03
Well I.D.: MW-2	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 41.75	Depth to Water (DTW): 30.43
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]: 32.69	

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Peristaltic Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: 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	radius <sup>2</sup> * 0.163

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1546	67.0	7.1	2668	7200	1.8	cloudy, tail slight gasode
1549	66.9	7.1	2838	7200	3.6	more turbid than
1552	67.0	7.1	3019	7200	5.4	less turbid
						DTW = 36.85

Did well dewater? Yes  No Gallons actually evacuated: 5.4

Sampling Date: 10/3/03 Sampling Time: 16:35 Depth to Water: 31.14

Sample I.D.: MW-2 Laboratory: STL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: OKY's

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
--------------------	------------	----	-------------	----

# SHELL WELL MONITORING DATA SHEET

BTS #: 031003-MD3	Site: 97464 711
Sampler: John Dr. Long	Date: 10/3/03
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 43.91	Depth to Water (DTW): 29.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: FVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 32.76	

Purge Method: Builer Disposable Bailer <del>Positive Air Displacement</del> Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other _____																
$\frac{2.2 \text{ (Gals.)} \times 3}{\text{Case Volume}} = \frac{6.6 \text{ Gals.}}{\text{Specified Volumes}}$		<table border="1"> <thead> <tr> <th>Well Diameter</th> <th>Multplier</th> <th>Well Diameter</th> <th>Multplier</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>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multplier	Well Diameter	Multplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multplier	Well Diameter	Multplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius <sup>2</sup> * 0.163															

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1603	67.1	7.1	2871	>200	2.2	cloudy, tan, gas odor
1607	67.2	7.2	2845	>200	4.4	
1609	67.3	7.2	2802	>200	6.6	
						DTW = 32.12

Did well dewater?	Yes	No	Gallons actually evacuated: 6.6
Sampling Date: 10/3/03	Sampling Time: 1645	Depth to Water: 30.37	
Sample I.D.: MW-3	Laboratory: STL	Other: _____	
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: oxy's		
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 #: 031003-MD3	Site: 97464711		
Sampler: John De Jong	Date: 10/3/03		
Well I.D.: MW-4	Well Diameter <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8		
Total Well Depth (TD): 43.98	Depth to Water (DTW): 31.10		
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]: 33.68			

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:

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

2 (Gals.) X 3 = 6 Gals.  
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
1512	69.3	7.3	2428	>200	2	tiny cloudy
1513	68.2	7.2	2417	>200	4	
1515	67.7	7.1	2522	>200	6	
						DTW = 36.12

Did well dewater?	Yes	No	Gallons actually evacuated:	6
Sampling Date:	10/3/03	Sampling Time:	1510	Depth to Water: 31.16
Sample I.D.:	MW-4	Laboratory:	STL	Other
Analyzed for:	<input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TPH-D	Other:	oxy's	
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 GAUGING DATA

Project # 030923-MD | Date 9/23/03 Client 97464711

Site 6750 Santa Rita Rd, Pleasanton

## SHELL WELL MONITORING DATA SHEET

Pg 1 of 2

BTS #: 030923-MD1	Site: 97464711
Sampler: John De Jong	Date: 9/23/03
Well I.D.: MW-3	Well Diameter: 3 4 6 8
Total Well Depth (TD): 43.91	Depth to Water (DTW): 29.95
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 35.53	

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible

Walterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing

## Gals Overpurge

7.2 (Gals.) X \_\_\_\_\_ = Gals.  
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplicator	Well Diameter	Multiplicator
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	DTW Observations
700 Started purging @ ~5 gpm						DTW = 29.95
730					15	MW = 29.91 MW-3 = 36.15 MW-2 = 24.05 MW-4 = 31.15
750 well dewatered @					2.0 gpm	MW-3 = 41.14 754 DTW = 35.91 75.0 Tur = 34.91 75.0 DTW = 38.85
765 began purging again @ 25 gpm					3	DTW 34.91 MW-2 = 29.93 MW-4 = 31.14

Did well dewater? Yes No - Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: 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

## WELL DEVELOPMENT DATA SHEET

## Our Oceans

Well I.D. M05-3	PAGE 2 OF 2
Project #: 030923.MD1	Client: 97464711

## WELL MONITORING DATA SHEET

Pg 1 of 2

Project #: 070923-MD1	Client: 97464711	
Sampler: John DeJong	Start Date: 9/23/03	
Well I.D.: MWZ	Well Diameter: ② 3 4 6 8	
Total Well Depth: 41.75	Depth to Water: 30.21	
Before: After:	Before: After:	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH	

Purge Method: 60% recharge = 24.83

Sampling Method:

Bailer

Bailer

Water

Disposable Bailer

Disposable Bailer

Peristaltic

Extraction Port

Positive Air Displacement

Extraction Pump

Dedicated Tubing

Electric Submersible

Other

Other:

Overcharge 2 hrs

(Gals.) X

Gals.

Case Volume Specified Volumes Calculated Volume

Well Diameter	Multipier	Well Diameter	Multipier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
1310	Decon purging	② 125 pH				1310 gals 29.75
1340					10	1340 well 30.5 mwh2 = 30.5
1405	well dewatered				18 gal	1405 mwh2 = 40.32
1410	mwh2 = 39.91 mwh2 = 39.59 mwh2 = 39.21 1410 mwh2 = 39.00 1410 mwh2 = 38.86 1410 mwh2 = 38.61 1410 mwh2 = 38.35					1410 mwh2 = 37.86 1410 mwh2 = 37.51 1410 mwh2 = 37.94 1410 mwh2 = 37.74 1410 mwh2 = 37.54 1410 mwh2 = 37.46 1410 mwh2 = 37.27
1425	mwh2 = 35.71	1430 mwh2 = 34.75	→ see pg. 2			

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date:

Sample I.D.: Laboratory: STL

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

Equipment Blank I.D.: Duplicate I.D.:

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

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

## WELL MONITORING DATA SHEET

Pg 2 of 2

Project #: 030923-MD1	Client: 97464711
ampler: John De Jong	Start Date: 9/22/03
Well I.D.: MW2	Well Diameter: <input checked="" type="checkbox"/> 3    4    6    8
Total Well Depth: 41.75	Depth to Water: 30.21
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH

Purge Method:	Sampling Method:	Bailer																
Bailer	Waterra	Disposable Bailer																
Disposable Bailer	Peristaltic	Extraction Port																
<u>Positive Air Displacement</u>	Extraction Pump	Dedicated Tubing																
Electric Submersible	Other _____	Other: _____																
(Gals.) X _____ = _____ Gals.	Case Volume Specified Volumes Calculated Volume	<table border="1"> <thead> <tr> <th>Well Diameter</th> <th>Multipier</th> <th>Well Diameter</th> <th>Multipier</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>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multipier	Well Diameter	Multipier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multipier	Well Diameter	Multipier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius <sup>2</sup> * 0.163															

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
1430			D <sub>low</sub> = 34.75	Began re-purging @ ~2.7m	24	MW1 = 29.89 MW3 = 30.1
1500						MW1 = 29.93 MW3 = 30.0
1510			Stopped purging		25	MW2 = 29.12 MW4 = 31.0
						MW1 = 29.90 MW3 = 30.0
						MW2 = 29.51 MW4 = 31.15

Did well dewater?	Yes	No	Gallons actually evacuated:	
Sampling Time:	Sampling Date:			
Sample I.D.:	Laboratory:	STL		
Analyzed for:	TPH-G BTEX MTBE TPH-D	Other:		
Equipment Blank I.D.:	@ Time	Duplicate I.D.:		
Analyzed for:	TPH-G BTEX MTBE TPH-D	Other:		
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

## WELL GAUGING DATA

Project # 030829.BA1 Date 8/29/03 Client Shell

Site 6750 Santa Rita Rd, Pleasanton

## SHELL WELL MONITORING DATA SHEET

Page 1 of 2

BTS #: 030829-BA1	Site: 6750 Santa Rita Rd., Pleasanton		
Sampler: Brian Arcoria	Date: 8/29/03		
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8		
Total Well Depth (TD): 43.91	Depth to Water (DTW): 30.05		
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]:

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

(6 Hour Overpurge Event)

1 Case Volume	(Gals.) X 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 <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0800	Blaine Purge w/PAD @ 1/2 GPM					DTW = 30.05
0830	MW-1 = 29.93 MW-2 = 29.93 MW-4 = 31.20	15 gallons	36.42			
0900	29.78	29.55	31.22	30	38.40	
0930	30.00	29.51	31.21	45	38.12	
1000	29.99	29.48	31.22	60	37.85	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: Sampling Time: Depth to Water:

Sample I.D.: 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

## WELL DEVELOPMENT DATA SHEET

Well I.D. MW-3	PAGE 2 OF 2
Project #: 030829-BA1	Client: Shell - 6750 Santa Rita Rd., Pleasanton

## SHELL WELL MONITORING DATA SHEET

Page 1 of 2

BTS #: 030829-RA)	Site: 6750 Santa Rita Rd., Pleasanton		
Sampler: Brian Aucano	Date: 8/29/03		
Well I.D.: MW-2	Well Diameter: ② 3 4 6 8		
Total Well Depth (TD): 41.75	Depth to Water (DTW): 29.46 w/stinger		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: <i>Ave</i>	Grade	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 34.38			

Purge Method: Bailer  
*enriched*  
*Stainless*  
*Purge*  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible

Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing

Other: \_\_\_\_\_

## 2 Hour Overpump Event

1 Case Volume (Gals.) X Specified Volumes	= Calculated Volume Gals.	Well Diameter	Multiplier	Well Diameter	Multiplier
		1"	0.04	4"	0.65
		2"	0.16	6"	1.47
		3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1400	Began Purging w/PAD @	1/2 gpm				DTW = 29.46
1420	Well Dewatered @ 10 gallons					38.30
1440	Monitored well each minute for 15 minutes and again at 2nd Recharge @ 0.2 fpm					
	Resumed purging @ 1/4 gpm					
1440	MW-1 = 35.35 MW-3 = 29.46 MW-4 = 31.18				10	34.30

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date:	Sampling Time:	Depth to Water:
Sample I.D.:	Laboratory:	STL Other
Analyzed for:	TPH-G BTEX MTBE TPH-D	Other:
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:
O.R.P. (if req'd):	Pre-purge:	mV Post-purge:

## WELL DEVELOPMENT DATA SHEET

Well I.D.: MW-2	PAGE 2 OF 2
Project #: 536829-B41	Client: Shell - 6050 Santa Rita Rd., Pleasanton

## WELL GAUGING DATA

Project # 03073-Ac Date 7/31/03 Client 097464711

Site 6750 Santa Rita Rd Pleasanton

# SHELL WELL MONITORING DATA SHEET

BTS #: 030731-Ac	Site: 97464711
Sampler: AC	Date: 7/31/03
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 41.75	Depth to Water (DTW): 29.33
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 50% Recharge [(Height of Water Column x 0.20) + DTW]: 34.21	

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible

Water  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:  
 Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated NTubing

Other: \_\_\_\_\_

2 Hour Overpurge

1 Case Volume	(Gals.) X Specified Volumes	Gals.	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 <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1230	started overpurge w/ m.b. pump			@ .5 gpm	15	DTW = 29.40 MW-1 = 29.99 MW-3 = 30.9 MW-2 = 29.49 MW-4 = 31.22 MW-1 = 30.09 MW-3 = 30.12 MW-2 = 29.52 MW-4 = 31.29 MW-1 = 30.14 MW-3 = 30.08 MW-2 = 29.97 MW-4 = 31.36 MW-1 = 30.03 MW-3 = 29.46 MW-2 = 29.56 MW-4 = 31.40
1300					30	
1330					45	
1400					60	
1430						

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date:	Sampling Time:	Depth to Water:
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	mg/L
O.R.P. (if req'd): Pre-purge:	mV	mV

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

\*wells will not De water @ a rate of .5 gpm or less\*

### SHELL WELL MONITORING DATA SHEET

BTS #: 030731 - Acl	Site: 97-964-711
Sampler: AC	Date: 7/31/03
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 43.91	Depth to Water (DTW): 29.94
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH
DTW with 60% Recharge [(Height of Water Column x 0.26) + DTW]: 35.52	

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 \_\_\_\_\_

6 Hour Diverge

(Gals.) X \_\_\_\_\_ = 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 <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0630	Started	purge w/ M.B. pump	@ 0.5 gpm	DTW = 29.94		MW-1 = 30.05 MW-3 = 30.68
0700				15		MW-2 = 29.40 MW-4 = 31.06
0730				30		MW-1 = 30.02 MW-3 = 30.66
0800				45		MW-2 = 29.51 MW-4 = 31.14
0830				60		MW-1 = 30.16 MW-3 = 30.84

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date:	Sampling Time:	Depth to Water:
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:
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:

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

\* Wells will not De-Water @ a rate of .5 gpm or less \*

## WELL DEVELOPMENT DATA SHEET

Well I.D. MW-3	PAGE 2 OF 2
Project #: 030731-A01	Client: 97464711