



Shell Oil Products US

April 22, 2003

eva chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Alameda County
APR 30 2003
Environmental Health

Subject: Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California

Dear Ms. chu:

Attached for your review and comment is a copy of the *First Quarter 2003 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna
Sr. Environmental Engineer

April 22, 2003

eva chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **First Quarter 2003 Monitoring Report**
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California
Incident #98995328
Cambria Project #245-0548-002



Dear Ms. chu:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

FIRST QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map with a rose diagram showing groundwater gradient (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

Additional Analysis: As requested in a February 6, 2002 correspondence from the Alameda County Health Care Services Agency (ACHCSA), wells MW-2, MW-3, and MW-4 were sampled and analyzed for diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA). Results are summarized on Table 1. No DIPE, ETBE, or TAME has been detected in wells MW-2, MW-3 and MW-4 since quarterly monitoring for these constituents began during the second quarter 2002.

**Cambria
Environmental
Technology, Inc.**

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

Subsurface Investigation: A right-of-entry agreement for the Coco's Restaurant property located across San Ramon Road from the site was finalized in the end of February 2003. Cambria scheduled the fieldwork for the investigation described in our July 29, 2002 *Investigation Work Plan Addendum* for April 1, 2003.

ANTICIPATED SECOND QUARTER 2003 ACTIVITIES



Groundwater Monitoring: Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

Additional Analysis: Based on the consistent non-detect groundwater monitoring results for DIPE, ETBE and TAME in wells MW-2, MW-3 and MW-4 at the site, Cambria recommends discontinuing analysis for these compounds. Quarterly groundwater monitoring samples collected from wells MW-2, MW-3 and MW-4 will continue to be analyzed for TBA, in addition to the typical sampling for total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, and methyl tertiary butyl ether. Unless otherwise directed by the ACHCSA, Cambria will implement this change in analysis during the third quarter 2003.

Subsurface Investigation: Fieldwork for the investigation will be completed during the second quarter 2003. A subsurface investigation report will be submitted approximately 60 days after completion of field activities.

CLOSING

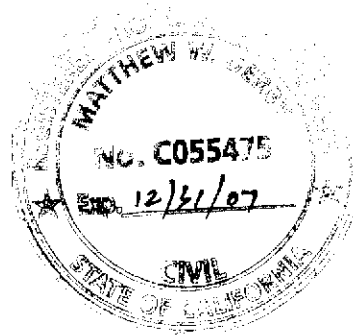
We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc



Jacquelyn L. Jones
Project Geologist

Matthew W. Derby, P.E.
Senior Project Engineer



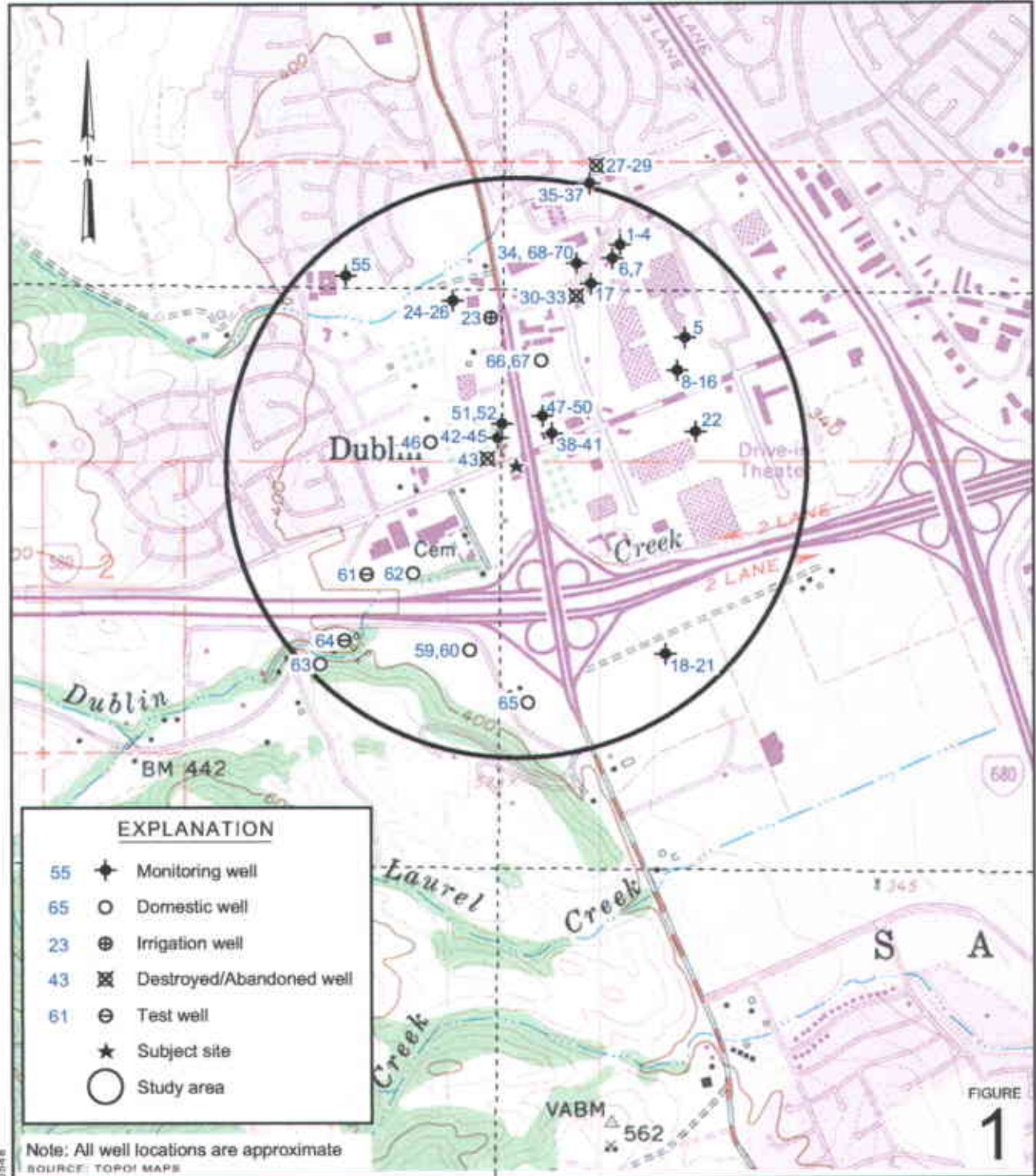
Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map

Table: 1 - Groundwater Analytical Data - Oxygenates

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

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

G:\Dublin 11989 Dublin\Qm\1q03\1q03qm.doc

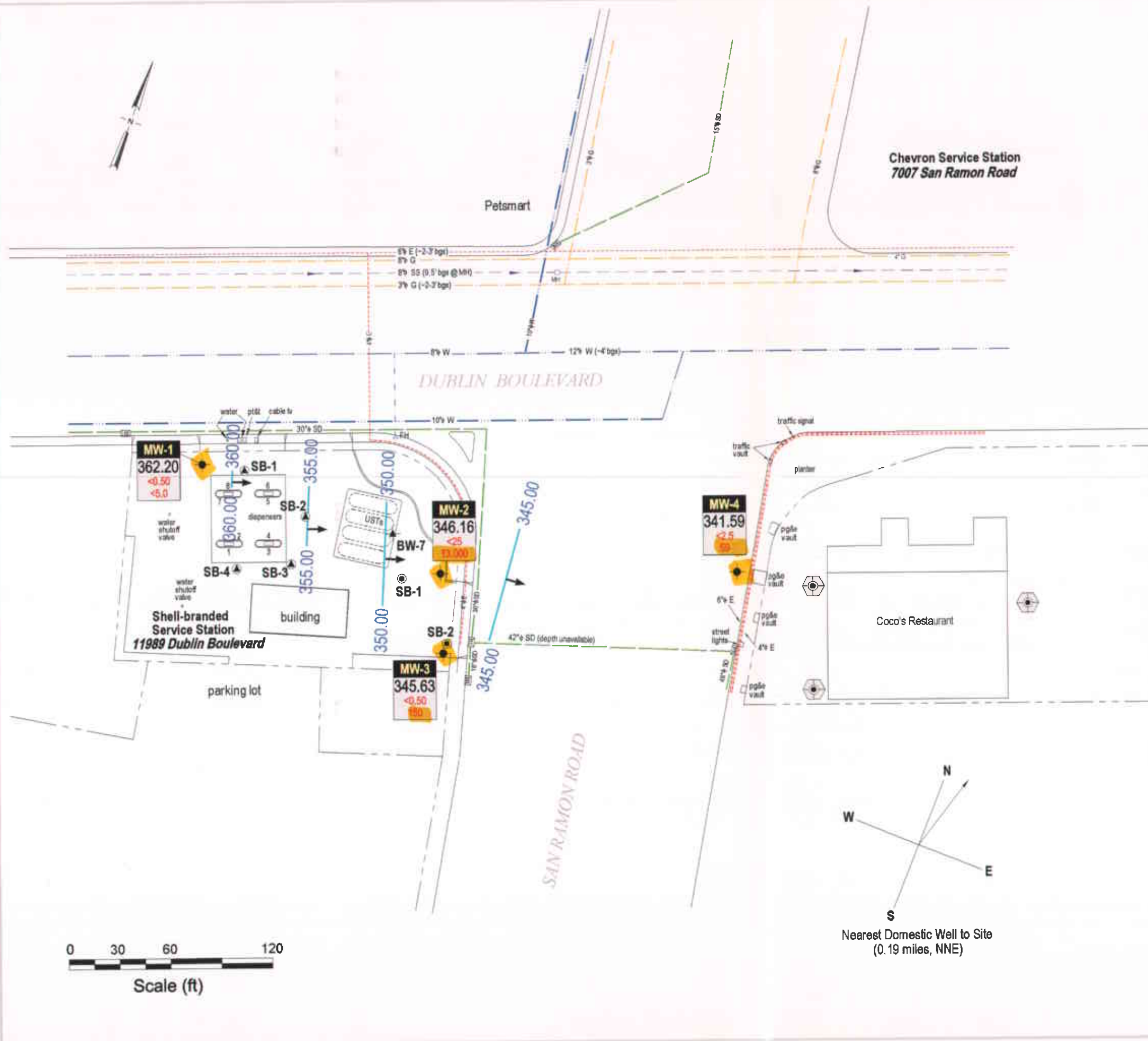


Shell-branded Service Station
 11989 Dublin Boulevard
 Dublin, California



Vicinity/Area Well Survey Map
 (1/2 Mile Radius)

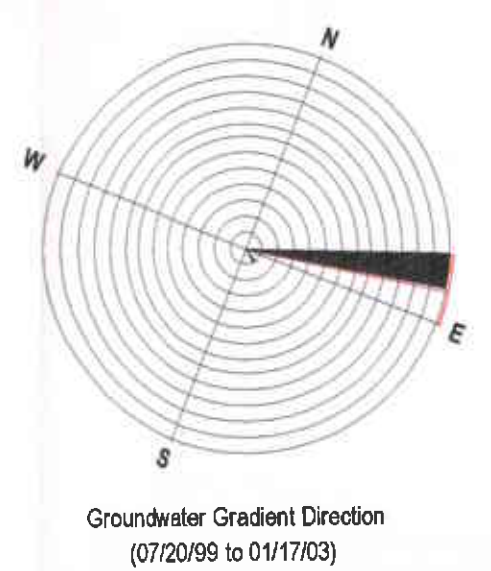
G:\DUBLIN\11989\DUBLIN\FIGURES\COM3-MP.DWG



EXPLANATION

- Proposed soil boring location
- MW-1** Monitoring well location
- BW-7** Tank backfill well
- SB-1** Soil boring location (11/16/97)
- SB-1** Soil boring location (8/5/98)
- Fire Hydrant (FH)
- Manhole (MH)
- Storm drain inlet
- Utility depth below ground surface
- Flow direction indicator
- Gas line (G)
- Storm Drain line (SD)
- Water line (W)
- Sanitary Sewer line (SS)
- Electric line (E)
- Groundwater flow direction
- Groundwater elevation contour, in feet above mean sea level (msl), approximately located

Well
ELEV Well designation
 Benzene Groundwater elevation, in feet above msl
 MTBE Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.



Nearest Domestic Well to Site
(0.19 miles, NNE)

FIGURE
2

Table 1. Groundwater Analytical Data - Oxygenates - Shell-branded Service Station, Incident #98995328, 11989 Dublin Boulevard, Dublin, California

Sample ID	Date Sampled	MTBE	DIPE	ETBE	TAME	TBA	Ethanol
		(Concentrations in ppb)					
MW-2	10/26/01	9,200	<20	<20	<20	1,800	<500
	05/22/02	20,000	<50	<50	<50	6,300	---
	07/15/02	16,000	<50	<50	<50	3,100	---
	10/11/02	8,200	<20	<20	<20	1,600	---
	01/17/03	13,000	<25	<25	<25	7,700	---
MW-3	10/26/01	680	<2.0	<2.0	<2.0	79	<500
	05/22/02	680	<2.0	<2.0	<2.0	58	---
	07/15/02	520	<2.0	<2.0	<2.0	53	---
	10/11/02	320	<2.0	<2.0	<2.0	330	---
	01/17/03	150	<2.0	<2.0	<2.0	440	---
MW-4	05/22/02	3,200	<5.0	<5.0	<5.0	2,500	---
	07/15/02	7,000	<20	<20	<20	2,000	---
	10/11/02	2,900	<5.0	<5.0	<5.0	5,100	---
	01/17/03	59	<2.5	<2.5	<2.5	7,000	---

Abbreviations & Notes:

MTBE = Methyl tert-butyl ether, analyzed by EPA Method 8260
 DIPE = Di-isopropyl ether, analyzed by EPA Method 8260
 ETBE = Ethyl tert-butyl ether, analyzed by EPA Method 8260
 TAME = Tert-amyl methyl ether, analyzed by EPA Method 8260
 TBA = Tert-butyl alcohol, analyzed by EPA Method 8260
 ppb = Parts per billion
 Ethanol analyzed by EPA Method 8260

ATTACHMENT A
Blaine Groundwater Monitoring Report
and Field Notes

BLAINE
TECH SERVICES INC.



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

February 20, 2003

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

First Quarter 2003 Groundwater Monitoring at
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, CA

Monitoring performed on January 17, 2003

Groundwater Monitoring Report 030117-DA-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/jt

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

cc: Anni Kreml
Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Oakland, CA 94608

WELL CONCENTRATIONS
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	D.O. Reading (ppm)
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MW-1	07/20/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	367.99	6.24	361.75	NA
MW-1	10/25/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	367.99	6.36	361.63	NA
MW-1	01/27/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.65	362.34	NA
MW-1	04/03/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.68	362.31	1.2/1.6
MW-1	07/27/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.69	362.30	1.0/1.1
MW-1	10/16/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.74	362.25	1.2/0.8
MW-1	01/16/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.71	362.28	0.59/2.8
MW-1	04/19/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.63	362.36	1.4/1.5
MW-1	07/13/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.70	362.29	2.3/3.1
MW-1	08/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	367.99	5.72	362.27	NA
MW-1	10/26/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.73	362.26	0.4/0.0
MW-1	01/11/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.55	362.44	5.4/2.0
MW-1	05/22/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.55	362.44	NA
MW-1	07/15/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.70	362.29	NA
MW-1	10/11/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.87	362.12	NA
MW-1	01/17/2003	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.79	362.20	NA

MW-2	07/20/1999	2,600	699	55.0	<2.50	59.5	<2.50	9,370	NA	365.43	20.31	345.12	NA
MW-2	10/25/1999	4,710	761	61.1	<10.0	74.6	<10.0	22,800	NA	365.43	22.80	342.63	NA
MW-2	01/27/2000	3,820	1490	60.8	<10.0	156	<10.0	13,400	15,000a	365.43	19.17	346.26	NA
MW-2	04/03/2000	7,130	NA	184	14.9	238	18.8	34,200	28,000	365.43	19.03	346.40	1.6/1.7
MW-2	07/27/2000	311	NA	10.0	<0.500	<0.500	<0.500	280	NA	365.43	19.09	346.34	1.9/1.7
MW-2	10/16/2000	3,970	NA	123	<5.00	68.5	<5.00	14,000	15,600	365.43	23.98	341.45	0.5/0.5
MW-2	01/16/2001	5,780	NA	125	9.71	139	6.93	7,660	7,810	365.43	22.12	343.31	0.90/2.61
MW-2	04/19/2001	4,460	NA	114	7.61	115	4.87	15,200	18,400	365.43	20.95	344.48	1.6/1.5
MW-2	07/13/2001	<5,000	NA	<25	<25	110	<25	NA	15,000	365.43	22.62	342.81	2.7/1.8
MW-2	08/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	365.43	22.33	343.10	NA
MW-2	10/26/2001	3,700	NA	<20	<20	66	<20	NA	9,200	365.43	22.32	343.11	0.7/0.8

WELL CONCENTRATIONS
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	D.O. Reading (ppm)
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MW-2	01/11/2002	<5,000	NA	<50	<50	54	<50	NA	15,000	365.43	18.72	346.71	5.1/c
MW-2	05/22/2002	<5,000	NA	53	<50	57	<50	NA	20,000	365.43	20.59	344.84	NA
MW-2	07/15/2002	<5,000	NA	<50	<50	<50	<50	NA	16,000	365.43	21.90	343.53	NA
MW-2	10/11/2002	3,600	NA	<20	<20	48	<20	NA	8,200	365.43	22.45	342.98	NA
MW-2	01/17/2003	4,700	NA	<25	<25	87	<25	NA	13,000	365.43	19.27	346.16	NA

MW-3	07/20/1999	208	177	4.69	<0.500	<0.500	<0.500	664	NA	364.97	24.23	340.74	NA
MW-3	10/25/1999	378	182	9.49	<0.500	<0.500	<0.500	1,410	NA	364.97	23.26	341.71	NA
MW-3	01/27/2000	428	100	29.4	<0.500	<0.500	<0.500	941	NA	364.97	19.53	345.44	NA
MW-3	04/03/2000	<125	NA	11.4	<1.25	<1.25	<1.25	639	NA	364.97	19.13	345.84	1.4/1.9
MW-3	07/27/2000	4,360	NA	78.4	6.95	85.8	2.61	26,600	25,200b	364.97	19.10	345.87	1.9/2.0
MW-3	10/16/2000	586	NA	21.3	<0.500	<0.500	<0.500	3,310	NA	364.97	24.11	340.86	1.1/0.8
MW-3	01/16/2001	558	NA	14.7	<0.500	<0.500	<0.500	2,210	NA	364.97	22.19	342.78	0.87/3.5
MW-3	04/19/2001	376	NA	9.08	<0.500	<0.500	<0.500	667	NA	364.97	20.96	344.01	1.7/1.4
MW-3	07/13/2001	370	NA	<2.0	<2.0	<2.0	<2.0	NA	670	364.97	22.77	342.20	3.1/4.8
MW-3	08/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	364.97	22.59	342.38	NA
MW-3	10/26/2001	<200	NA	<2.0	<2.0	<2.0	<2.0	NA	680	364.97	22.81	342.16	1.0/3.2
MW-3	01/11/2002	480	NA	<2.0	<2.0	<2.0	<2.0	NA	830	364.97	18.88	346.09	1.1/3.2
MW-3	05/22/2002	570	NA	<1.0	<1.0	<1.0	<1.0	NA	680	364.97	20.75	344.22	NA
MW-3	07/15/2002	420	NA	1.1	<1.0	<1.0	1.1	NA	520	364.97	22.09	342.88	NA
MW-3	10/11/2002	730	NA	<0.50	<0.50	<0.50	<0.50	NA	320	364.97	22.68	342.29	NA
MW-3	01/17/2003	740	NA	<0.50	<0.50	<0.50	<0.50	NA	150	364.97	19.34	345.63	NA

MW-4	08/10/2001	NA	NA	NA	NA	NA	NA	NA	NA	364.01	25.63	338.38	NA
MW-4	08/13/2001	2,400	NA	<10	<10	<10	<10	NA	8,300	364.01	26.32	337.69	4.2/2.7
MW-4	10/26/2001	<2,000	NA	<20	<20	<20	<20	NA	8,600	364.01	26.02	337.99	3.1/2.8
MW-4	01/11/2002	<2,000	NA	<20	<20	<20	<20	NA	5,100	364.01	22.25	341.76	7.9/3.0
MW-4	05/22/2002	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	3,200	364.01	23.96	340.05	NA

WELL CONCENTRATIONS
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	D.O. Reading (ppm)
MW-4	07/15/2002	<2,500	NA	<20	<20	<20	<20	NA	7,000	363.97	25.18	338.79	NA
MW-4	10/11/2002	1,900	NA	<5.0	<5.0	<5.0	<5.0	NA	2,900	363.97	25.91	338.06	NA
MW-4	01/17/2003	580	NA	<2.5	<2.5	<2.5	<2.5	NA	59	363.97	22.38	341.59	NA

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 13, 2001, analyzed by EPA Method 8015.

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to July 13, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether by EPA Method 8020.

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

n/n = Pre-purge/Post-purge DO Readings

NA = Not applicable

Notes:

a = Sample was analyzed outside the EPA recommended holding time.

b = Concentration is an estimate.

c = D.O. meter malfunctioning.

Wells surveyed June 21, 1999, by Virgil Chavez Land Surveying of Vallejo, California.

Wells surveyed August 23, 2001, and February 18, 2002, by Virgil Chavez Land Surveying of Vallejo, California.



Report Number : 31012

Date : 1/24/2003

Leon Gearhart
Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject : 4 Water Samples
Project Name : 11989 Dublin Boulevard, Dublin
Project Number : 030117-DA-1
P.O. Number : 98995328

Dear Mr. Gearhart,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, looping initial "J".

Joel Kiff



Report Number : 31012

Date : 1/24/2003

Subject : 4 Water Samples
Project Name : 11989 Dublin Boulevard, Dublin
Project Number : 030117-DA-1
P.O. Number : 98995328

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with samples MW-4, MW-2 for the analytes Tert-Butanol, Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By:  _____
Joel Kiff



Report Number : 31012

Date : 1/24/2003

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 030117-DA-1

Sample : MW-1

Matrix : Water

Lab Number : 31012-01

Sample Date : 1/17/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/22/2003
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	1/22/2003
4-Bromofluorobenzene (Surr)	97.3		% Recovery	EPA 8260B	1/22/2003

Approved By:  Joel Kiff



Report Number : 31012

Date : 1/24/2003

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 030117-DA-1

Sample : MW-2

Matrix : Water

Lab Number : 31012-02

Sample Date :1/17/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 25	25	ug/L	EPA 8260B	1/24/2003
Toluene	< 25	25	ug/L	EPA 8260B	1/24/2003
Ethylbenzene	87	25	ug/L	EPA 8260B	1/24/2003
Total Xylenes	< 25	25	ug/L	EPA 8260B	1/24/2003
Methyl-t-butyl ether (MTBE)	13000	25	ug/L	EPA 8260B	1/24/2003
Diisopropyl ether (DIPE)	< 25	25	ug/L	EPA 8260B	1/24/2003
Ethyl-t-butyl ether (ETBE)	< 25	25	ug/L	EPA 8260B	1/24/2003
Tert-amyl methyl ether (TAME)	< 25	25	ug/L	EPA 8260B	1/24/2003
Tert-Butanol	7700	250	ug/L	EPA 8260B	1/24/2003
TPH as Gasoline	4700	2500	ug/L	EPA 8260B	1/24/2003
Toluene - d8 (Surr)	95.3		% Recovery	EPA 8260B	1/24/2003
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	1/24/2003

Approved By:  Joel Kiff



Report Number : 31012

Date : 1/24/2003

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 030117-DA-1

Sample : MW-3

Matrix : Water

Lab Number : 31012-03

Sample Date :1/17/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/22/2003
Methyl-t-butyl ether (MTBE)	150	0.50	ug/L	EPA 8260B	1/22/2003
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	1/22/2003
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	1/22/2003
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	1/22/2003
Tert-Butanol	440	50	ug/L	EPA 8260B	1/22/2003
TPH as Gasoline	740	50	ug/L	EPA 8260B	1/22/2003
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	1/22/2003
4-Bromofluorobenzene (Surr)	99.0		% Recovery	EPA 8260B	1/22/2003

Approved By:  Joel Kiff



Report Number : 31012

Date : 1/24/2003

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 030117-DA-1

Sample : MW-4

Matrix : Water

Lab Number : 31012-04

Sample Date : 1/17/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Toluene	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Ethylbenzene	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Total Xylenes	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Methyl-t-butyl ether (MTBE)	59	2.5	ug/L	EPA 8260B	1/23/2003
Diisopropyl ether (DIPE)	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Ethyl-t-butyl ether (ETBE)	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Tert-amyl methyl ether (TAME)	< 2.5	2.5	ug/L	EPA 8260B	1/23/2003
Tert-Butanol	7000	50	ug/L	EPA 8260B	1/23/2003
TPH as Gasoline	580	250	ug/L	EPA 8260B	1/23/2003
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	1/23/2003
4-Bromofluorobenzene (Surr)	99.5		% Recovery	EPA 8260B	1/23/2003

Approved By:  Joel Kiff

QC Report : Method Blank DataProject Name : **11989 Dublin Boulevard, Dublin**Project Number : **030117-DA-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/23/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/23/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/23/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/23/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/23/2003
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	1/23/2003
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	1/23/2003
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	1/23/2003
Tert-Butanol	< 50	50	ug/L	EPA 8260B	1/23/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/23/2003
Toluene - d8 (Surr)	103		%	EPA 8260B	1/23/2003
4-Bromofluorobenzene (Surr)	99.4		%	EPA 8260B	1/23/2003

Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/21/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/21/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/21/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/21/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/21/2003
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	1/21/2003
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	1/21/2003
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	1/21/2003
Tert-Butanol	< 50	50	ug/L	EPA 8260B	1/21/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/21/2003
Toluene - d8 (Surr)	99.7		%	EPA 8260B	1/21/2003
4-Bromofluorobenzene (Surr)	98.4		%	EPA 8260B	1/21/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St. Suite 300 Davis, CA 95616 530-297-4800

Report Number : 31012

Date : 1/24/2003

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 11989 Dublin Boulevard,

Project Number : 030117-DA-1

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	31029-01	<0.50	55.9	55.9	55.7	55.7	ug/L	EPA 8260B	1/23/03	99.7	99.7	0.00	70-130	25
Toluene	31029-01	<0.50	55.9	55.9	53.8	54.3	ug/L	EPA 8260B	1/23/03	96.3	97.2	0.930	70-130	25
Tert-Butanol	31029-01	960	279	279	1360	1280	ug/L	EPA 8260B	1/23/03	147	118	21.7	70-130	25
Methyl-t-Butyl Ether	31029-01	350	55.9	55.9	386	401	ug/L	EPA 8260B	1/23/03	55.6	83.1	39.7	70-130	25
Benzene	31010-03	<0.50	40.0	40.0	42.1	41.4	ug/L	EPA 8260B	1/21/03	105	104	1.53	70-130	25
Toluene	31010-03	<0.50	40.0	40.0	41.4	41.2	ug/L	EPA 8260B	1/21/03	103	103	0.485	70-130	25
Tert-Butanol	31010-03	5.2	200	200	203	211	ug/L	EPA 8260B	1/21/03	98.9	103	3.78	70-130	25
Methyl-t-Butyl Ether	31010-03	<0.50	40.0	40.0	42.0	42.1	ug/L	EPA 8260B	1/21/03	105	105	0.309	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

QC Report: Laboratory Control Sample (LCS)

Project Name: 11989 Dublin Boulevard,

Project Number: 030117-DA-1

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	1/23/03	96.1	70-130
Toluene	20.0	ug/L	EPA 8260B	1/23/03	92.7	70-130
Tert-Butanol	100	ug/L	EPA 8260B	1/23/03	118	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	1/23/03	87.4	70-130
Benzene	40.0	ug/L	EPA 8260B	1/21/03	104	70-130
Toluene	40.0	ug/L	EPA 8260B	1/21/03	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/21/03	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/21/03	106	70-130

KIFF ANALYTICAL, LLC

Approved By:


Joel Kiff

CHAIN OF CUSTODY RECORD

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

SCIENCE & ENGINEERING
 TECHNICAL SERVICES
 CRMT HOUSTON

Karen Petryna

31012

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 3 2 8

SAP or CRMT NUMBER (TS/CRMT)

DATE: 1/17/03

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services		LOG CODE: BTSS		SITE ADDRESS (Street and City): 11989 Dublin Boulevard, Dublin					GLOBAL ID NO.: T0600102083																										
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112				EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml			PHONE NO.: 510-420-3335		E-MAIL: ShellOaklandEDF@cambria-env.com		CONSULTANT PROJECT NO.: BTS # 030117-04-7																								
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart				SAMPLER NAME(S) (Print): DAVE					LAB USE ONLY																										
TELEPHONE: 408-573-0555		FAX: 408-573-7771		E-MAIL: lgearhart@blainetech.com																															
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"/> UST AGENCY: _____																																			
GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____																																			
SPECIAL INSTRUCTIONS OR NOTES: _____ CHECK BOX IF EDD IS NOT NEEDED <input type="checkbox"/>																																			
LAB USE ONLY	Field Sample Identification			SAMPLING		MATRIX	NO. OF CONT.	TPH - Cas, Purgeable	BTEX	MTBE (#021B - 5ppb RL)	MTBE (#260B - 0.5ppb RL)	Oxygenates (5) by (#260B)	Ethanol (#260B)	Methanol	1,2-DCA (#260B)	EDS (#260B)	TPH - Diesel, Extractable (#015m)	REQUESTED ANALYSIS					FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes												
	DATE		TIME																																
	Mw-1			1/17/03	0810													W	3	X	X	X													-01
	Mw-2				0755															X	X				X										-02
	Mw-3				0805															X	X				X										-03
Mw-4				0703			X	X			X										-04														
Retinquished by: (Signature)				Received by: (Signature)				Date:				Time:																							
<i>[Signature]</i>								1/20/03				1038																							
Retinquished by: (Signature)				Received by: (Signature)				Date:				Time:																							
Retinquished by: (Signature)				Received by: (Signature)				Date:				Time:																							
				<i>John Little / Kiff Analytical</i>				012003				1038																							

WELL GAUGING DATA

Project # 030117-DA-1 Date 1/17/03 Client Shell

Site 11989- Dublin Blvd. Dublin, CA

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	4					5.79	19.78	TOC
MW-2	4					19.27	32.53	↓
MW-3	4					19.34	32.65	
MW-4	2					22.38	35.20	

SHELL WELL MONITORING DATA SHEET

BTS #: 030117-DA-2	Site: 11989 Dublin Blvd. Dublin, CA
Sampler: Dave A.	Date: 1/17/03
Well I.D.: Mw-1	Well Diameter: 2 3 @ 6 8
Total Well Depth (TD): 19.78	Depth to Water (DTW): 5.79
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: 170 Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.59	

Purge Method: Bailer Disposable Bailer Middleburg <input checked="" type="checkbox"/> Electric Submersible	Water: Peristaltic Extraction Pump Other:	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other:
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9.1 (Gals.) X 3 = 27.3 Gals. 1 Case Volume Specified Volume 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>@ 6"</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	@ 6"	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	@ 6"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0722	58.9	6.9	1244	91	9.5	
0724	65.5	6.9	1215	63	18	
0726	65.5	6.9	1208	55	28	DTW = 14.02

Did well dewater? Yes No Gallons actually evacuated: 28

Sampling Date: 1/17/03 Sampling Time: 0830 Depth to Water: 5.01

Sample I.D.: Mw-1 Laboratory: ~~KIT~~ SPL 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:	mg/L
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O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV
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SHELL WELL MONITORING DATA SHEET

BTS #: 030117-DA-2	Site: 11989 Dublin Blvd., Dublin, CA
Sampler: Dave A.	Date: 1/17/03
Well I.D.: MW-2	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 32.53	Depth to Water (DTW): 19.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVG</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.92	

Purge Method: Bailer	Watertra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Middleburg	Extraction Pump	Extraction Port
<input checked="" type="checkbox"/> Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

8.6 (Gals.) X	3	= 25.8 Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	<u>4"</u>	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
744	56.5	6.7	1119	22	9	clear
747	62.3	6.8	1132	21	18	
0748	63.4	6.9	1159	19	26	

Did well dewater? Yes Gallons actually evacuated: 26

Sampling Date: 1/17/03 Sampling Time: 0755 Depth to Water: 21.92

Sample I.D.: MW-2 Laboratory: RTI SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oil'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 #: 030117-DA-2	Site: 11989 Dublin Blvd. Dublin, CA
Sampler: Dave A.	Date: 1/17/03
Well I.D.: MW-3	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 32.65	Depth to Water (DTW): 19.34
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.00	

Purge Method: Bailer Disposable Bailer Middleburg <input checked="" type="checkbox"/> Electric Submersible	Water: Peristaltic Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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$8.7 \text{ (Gals.)} \times 3 = 26.1 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Well Diameter</th> <th style="text-align: left;">Multiplier</th> <th style="text-align: left;">Well Diameter</th> <th style="text-align: left;">Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td><u>4"</u></td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	<u>4"</u>	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	<u>4"</u>	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0709	60.9	6.9	1287	42	9	clear
0711	62.6	7.0	1293	22	19	"
0713	63.5	7.0	1328	21	26.5	DTW = 27.62

Did well dewater? Yes No

Gallons actually evacuated: 26.5

Sampling Date: 1/17/03 Sampling Time: 0815 Depth to Water: ~~18.7~~ 21.18

Sample I.D.: MW-3 Laboratory: SPL Other: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxy'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 #: 030117-DA-2	Site: 11989 Dublin Blvd., Dublin, CA
Sampler: Dave A.	Date: 1/17/03
Well I.D.: MW-4	Well Diameter: 2 3 <input checked="" type="radio"/> 6 8
Total Well Depth (TD): 35.20	Depth to Water (DTW): 22.38
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>Eye</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 24.44	

Purge Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible	Water: <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input type="checkbox"/> Other _____	Sampling Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$\frac{2.0 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = \frac{6.0 \text{ Gals.}}{\text{Specified Volumes}} = \text{Calculated Volume}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <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><input checked="" type="radio"/> 6"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multplier	Well Diameter	Multplier	1"	0.04	<input checked="" type="radio"/> 6"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multplier	Well Diameter	Multplier														
1"	0.04	<input checked="" type="radio"/> 6"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0655	61.0	6.9	1133	7200	2	cloudy
0658	63.4	7.0	1102	7200	4	"
0700	63.6	7.0	1092	7200	6	"

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Date: 1/17/03 Sampling Time: 0703 Depth to Water: 24.31

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

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