CAMBRIA

August 2, 2005

Mr. Barney Chan
Alameda County Health Care Services
Department of Environmental Health
1153 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Interim Corrective Action Overpurge Results**
Wells MW-2, MW-3 and MW-4, April 7, 2005
Former Chevron Service Station No. 9-1851
451 Hegenberger Road.
Oakland, California

Dear Mr. Chan:

Cambria Environmental Technology, Inc. (Cambria) has been requested by Chevron Products Company (Chevron) to conduct periodic overpurging of groundwater at the above referenced site. Overpurging events were approved as part of Delta Environmental Consultants, Inc. (Delta) *Interim Corrective Action Plan*, dated August 1, 2000. A site vicinity map is shown as Figure 1 and a site plan is shown as Figure 2.

Presented below are the results of the overpurge event conducted on April 7, 2005. Fieldwork included collecting depth to water measurements for all wells and collecting pre- and post-purge groundwater samples from the overpurged wells (MW-2, MW-3, MW-4) for chemical analysis of dissolved petroleum hydrocarbons.

Groundwater elevations were calculated for monitoring wells MW-1 through MW-7 using depth to groundwater measurements. Groundwater elevations and depth to water data are presented in Table 1. Measurements recorded on April 7, 2005 were used to create the pre- and post-purge groundwater elevation contour maps shown as Figures 3 and 4, respectively.

SCOPE OF WORK AND RESULTS

The purging of monitoring wells MW-2, MW-3 and MW-4 occurred over approximately 8 hours. Groundwater samples were collected from each well before and after the overpurge event. Monitoring wells MW-2, MW-3 and MW-4 did not recharge to sufficient levels to continue extraction. After approximately 8 hours, only 50 gallons of water has been purged.

Cambria Environmental Technology, Inc.

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

Laboratory Analysis: Selected groundwater samples were analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPHg) by modified EPA Method 8015;
- TPH as diesel (TPHd) by modified EPA Method 8015;
- TPH as motor oil (TPHmo) by modified EPA Method 8015;
- BTEX and MTBE by EPA Method 8260B.

Volume of Impacted Groundwater Removed: A cumulative total of approximately 50 gallons of groundwater were extracted from monitoring wells MW-2, MW-3 and MW-4. Based on average concentrations of TPHg and MTBE reported in groundwater samples collected from MW-2, MW-3 and MW-4 during the event, it is estimated that approximately 0.000006 gallons of TPHg and 0.000036 gallons of MTBE were extracted during this event. A total of 0.001996 gallons of TPHg, and a total of 0.008952 gallons of MTBE have been extracted from the site. Groundwater extraction data are shown on Table 2.

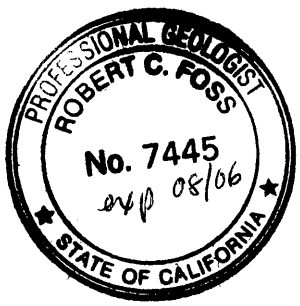
CLOSING

Please contact Robert Foss at (510) 420-3348 or bfoss@cambria-env.com with any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Laura Genin
Senior Staff Scientist

Robert Foss, P.G. #7445
Associate Geologist



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Barney Chan
August 2, 2005

Figure: 1 – Vicinity Map
2 – Site Map
3 – Groundwater Elevation Contour Map (pre-purge)
4 – Groundwater Elevation Contour Map (post-purge)

Tables: 1 – Groundwater Elevation Data
2 – Groundwater Extraction Data
3 – Groundwater Analytical Results

Attachment: A – Laboratory Analytical Results

Cc: Mr. Mark Inglis, Chevron Products Co., P.O. Box 6012, San Ramon, CA 94583
Mr. Ben Shimek, Petroleum Sales Inc., 31 Industrial Way, Greenbrae, CA 94904

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TABLES

Table 1. Groundwater Elevation Data - Chevron Station 9-1851, 451 Hegenberger Road, Oakland CA

	Date	Time	Top of Casing Elevation (ft.)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Change in Groundwater Elevation
Pre Purge						
MW-1	4/7/2005	0845	8.61	3.00	5.61	
MW-2	4/7/2005	0840	9.52	2.60	6.92	
MW-3	4/7/2005	0855	9.08	4.35	4.73	
MW-4	4/7/2005	0930	9.48	5.35	4.13	
MW-5	4/7/2005	0822	8.77	4.75	4.02	
MW-6	4/7/2005	0905	11.45	5.45	6.00	
MW-7	4/7/2005	0920	10.58	5.75	4.83	
Post Purge						
MW-1	4/7/2005	1530	8.61	3.00	5.61	0.00
MW-2	4/7/2005	1510	9.52	13.90	-4.38	11.30
MW-3	4/7/2005	1130	9.08	5.50	3.58	1.15
MW-4	4/7/2005	1300	9.48	14.80	-5.32	9.45
MW-5	4/7/2005	1540	8.77	4.90	3.87	0.15
MW-6	4/7/2005	1550	11.45	5.50	5.95	0.05
MW-7	4/7/2005	1600	10.58	6.00	4.58	0.25

Table 2. Groundwater Extraction Data - Chevron Station 9-1851, 451 Hegenberger Road, Oakland CA

Date	Extracted Groundwater Per Event (Gallons)	Cumulative Extracted Groundwater Volume (Gallons)	Extracted TPHg Volume Per Event* (Gallons)	Extracted MTBE Volume Per Event** (Gallons)	Cumulative Extracted TPHg Volume (Gallons)	Cumulative Extracted MTBE Volume (Gallons)
5/3/2001	200	200	0.000085	0.000700	0.000085	0.000700
6/6/2001	508	708	0.000177	0.001450	0.000261	0.002150
8/30/2001	400	1,108	0.000241	0.000824	0.000502	0.002974
1/15/2002	450	1,558	0.000187	0.000707	0.000689	0.003681
3/5/2002	700	2,258	0.000298	0.001012	0.000987	0.004693
6/18/2002	700	2,958	0.000260	0.001133	0.001247	0.005826
8/8/2002	750	3,708	0.000132	0.000813	0.001378	0.006639
10/31/2002	630	4,338	0.000236	0.000736	0.001614	0.007376
5/20/2003	600	4,938	0.000159	0.000399	0.001773	0.007775
1/5/2004	500	5,438	0.000172	0.000828	0.001945	0.008603
8/5/2004	200	5,638	0.000045	0.000314	0.001990	0.008916
4/7/2005	50	5,688	0.000006	0.000036	0.001996	0.008952

Abbreviations/Notes:

TPHg = Total Petroleum Hydrocarbons as Gasoline
MTBE = Methyl Tertiary Butyl Ether

* $VTPH = VGW\ [TPH]\ \rho TPH/1x10^6$
Where:
VTPH = Volume of TPH as gasoline in gallons
VGW = Volume of Groundwater in gallons
[TPH] = Average TPH as gasoline concentrations in micrograms per liter (ug/L)
ρTPH = density of TPH as gasoline = 0.74 kilograms per liter (kg/L).
$1x10^6$ = Conversion factor from ug to g.

** $VMTBE = VGW\ [MTBE]\ \rho MTBE/1x10^6$
Where:
VMTBE = Volume of MTBE in gallons
VGW = Volume of Groundwater in gallons
[MTBE = Average MTBE concentrations in micrograms per liter (ug/L)
ρMTBE = density of MTBE = 0.74 kilograms per liter (kg/L).
$1x10^6$ = Conversion factor from ug to g.

Table 3. Groundwater Analytical Results - Chevron Station 9-1851, 451 Hegenberger Road, Oakland CA

Sample ID	Sample Date	TPHg	MTBE	TPHd	B	T	E	X
		Concentrations reported in micrograms per Liter - ug/l = Parts Per Billion						
MW-4-pre	5/3/2001	491	2,020*/4,270	NA	<2.5	<2.5	<2.5	<2.5
MW-4-post	5/3/2001	370	3,330*/4,250	NA	<2.5	<2.5	<2.5	<2.5
MW-7-pre	5/3/2001	191	1,070*/1,190	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	5/3/2001	201	472*/647	NA	0.619	<0.5	1.65	0.961
Average	5/3/2001	313	2589.25	NA	1.09	0.75	1.10	0.93
MW-4-pre	6/11/2001	520	4,000*/3,700	NA	<5.0	<5.0	<5.0	<5.0
MW-4-post	6/11/2001	<500	5,900*/3,500	NA	<5.0	<5.0	<5.0	<5.0
MW-7-pre	6/11/2001	130	730*/690	NA	<5.0	<5.0	<5.0	<5.0
MW-7-post	6/11/2001	130	590*/560	NA	<5.0	<5.0	<5.0	<5.0
Average	6/11/2001	257.5	2112.5	NA	2.5	2.5	2.5	2.5
MW-4-pre	8/30/2001	720	3,000	NA	<1.0	<1.0	<1.0	<1.0
MW-4-post	8/30/2001	590	2,600	NA	<1.0	<1.0	<1.0	<1.0
MW-7-pre	8/30/2001	140	400	NA	<1.0	<1.0	<1.0	<1.0
MW-7-post	8/30/2001	330	97	NA	<1.0	<1.0	<1.0	<1.0
Average	8/30/2001	445	1,524	NA	0.5	0.5	0.5	0.5
MW-4-pre	1/15/2002	640	2,800	NA	<1.0	<1.0	<1.0	<1.0
MW-4-post	1/15/2002	290	1,100	NA	<0.5	<0.5	<0.5	<0.5
MW-7-pre	1/15/2002	89	290	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	1/15/2002	210	460	NA	<0.5	<0.5	<0.5	<0.5
Average	1/15/2002	307	1,163	NA	0.31	0.31	0.31	0.31
MW-4-pre	3/5/2002	420	2,200	NA	<1.0	<1.0	<1.0	<1.0
MW-4-post	3/5/2002	160	1,200	NA	<3.0	<3.0	<3.0	<3.0
MW-7-pre	3/5/2002	140	440	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	3/5/2002	540	440	NA	<0.5	<0.5	<0.5	<0.5
Average	3/5/2002	315	1,070	NA	0.625	0.625	0.625	0.625

Table 3. Groundwater Analytical Results - Chevron Station 9-1851, 451 Hegenberger Road, Oakland CA

Sample ID	Sample Date	TPHg	MTBE	TPHd	B	T	E	X
		Concentrations reported in micrograms per Liter - ug/l = Parts Per Billion						
MW-4-pre	6/18/2002	530	2,900	NA	<0.5	<0.5	<0.5	<0.5
MW-4-post	6/18/2002	180	1,200	NA	<0.5	<0.5	<0.5	<0.5
MW-7-pre	6/18/2002	120	290	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	6/18/2002	270	400	NA	<0.5	<0.5	<0.5	<0.5
Average	6/18/2002	275	1,198	NA	0.25	0.25	0.25	0.25
MW-4-pre	8/8/2002	370	2,400	NA	<0.5	<0.5	<0.5	<0.5
MW-4-post	8/8/2002	<50	220	NA	<0.5	<0.5	<0.5	<0.5
MW-7-pre	8/8/2002	74	190	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	8/8/2002	50	400	NA	<0.5	<0.5	<0.5	<0.5
Average	8/8/2002	130	803	NA	0.25	0.25	0.25	0.25
MW-4-pre	10/31/2002	490	2,200	NA	<0.5	<0.5	<0.5	<0.5
MW-4-post	10/31/2002	330	770	NA	0.9	1	2	13
MW-7-pre	10/31/2002	89	230	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	10/31/2002	200	260	NA	<0.5	<0.5	<0.5	<0.5
Average	10/31/2002	277	865	NA	0.41	0.44	0.69	3.44
MW-4-pre	5/20/2003	340	1,400	NA	<0.5	0.5	<0.5	<0.5
MW-4-post	5/20/2003	140	190	NA	<0.5	8	2	13
MW-7-pre	5/20/2003	93	170	NA	<0.5	<0.5	<0.5	<0.5
MW-7-post	5/20/2003	210	210	NA	2	22	4	27
Average	5/20/2003	196	493	NA	0.69	7.69	1.63	10.13
MW-3-pre	1/5/2004	290	1,500	NA	<1.0	<1.0	<1.0	<1.0
MW-3-post	1/5/2004	260	1,300	NA	<1.0	<1.0	<1.0	<1.0
MW-4-pre	1/5/2004	330	1,500	NA	<1.0	<1.0	<1.0	<1.0
MW-4-post	1/5/2004	140	600	NA	<0.5	<0.5	<0.5	<0.5
Average	1/5/2004	255	1,225	NA	0.44	0.44	0.44	0.44

Table 3. Groundwater Analytical Results - Chevron Station 9-1851, 451 Hegenberger Road, Oakland CA

Sample ID	Sample Date	TPHg	MTBE	TPHd	B	T	E	X
		Concentrations reported in micrograms per Liter - ug/l = Parts Per Billion						
MW-3-pre	8/5/2004	250	1,700	NA	2	<1.0	<1.0	<1.0
MW-3-post	8/5/2004	88	590	NA	<0.5	<0.5	<0.5	<0.5
MW-4-pre	8/5/2004	300	2,000	NA	<1.0	<1.0	<1.0	<1.0
MW-4-post	8/5/2004	<50	350	NA	<0.5	<0.5	<0.5	<0.5
Average	8/5/2004	165.75	1,160	NA	0.75	0.38	0.38	0.38
MW-2-pre	**4/7/2005**	**<50**	**2**	**3,500**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-2-post	**4/7/2005**	**<50**	**34**	**2,900**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3-pre	**4/7/2005**	**<50**	**86**	**300**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3-post	**4/7/2005**	**100**	**420**	**240**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-4-pre	**4/7/2005**	**240**	**1,900**	**NA**	**<3**	**<3**	**<3**	**<3**
MW-4-post	**4/7/2005**	**130**	**730**	**NA**	**<1**	**<1**	**<1**	**<1**
Average	**4/7/2005**	**91**	**529**	**1735.00**	**0.50**	**0.50**	**0.50**	**0.50**

Abbreviations/Notes:

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M

Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B

Methyl tertiary butyl ether (MTBE) by EPA Method 8260B, * = by EPA method 8021

<x = Not detected above method detection limit

NA = Not analyzed

Avergates were calculated using 1/2 of the detection limit if hydrocarbons were not detected above method reporting limits.

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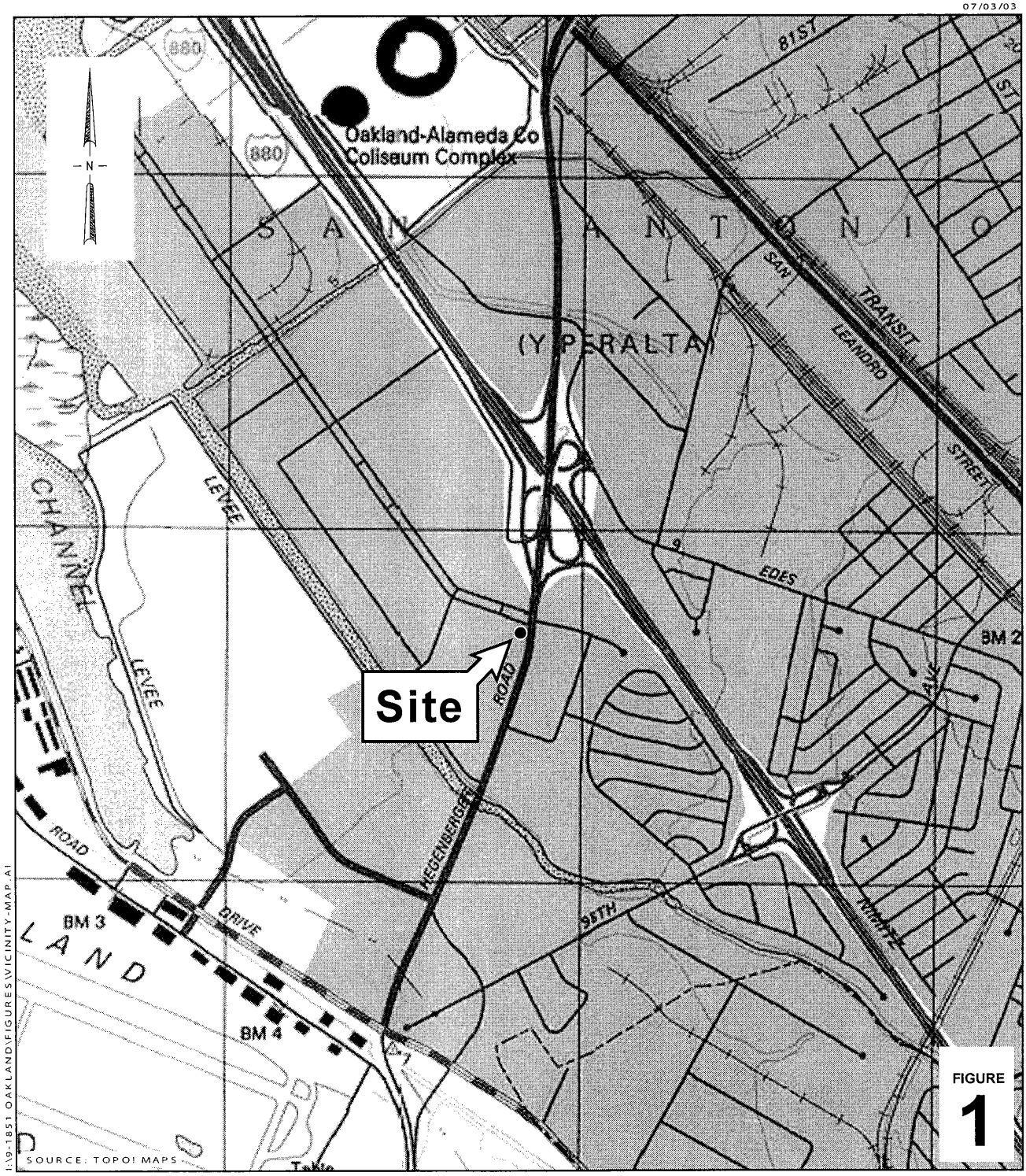
FIGURES

07/03/03



I:\9-1851 OAKLAND\FIGURES\VICINITY-MAP.AI

FIGURE
1

Chevron Service Station 9-1851

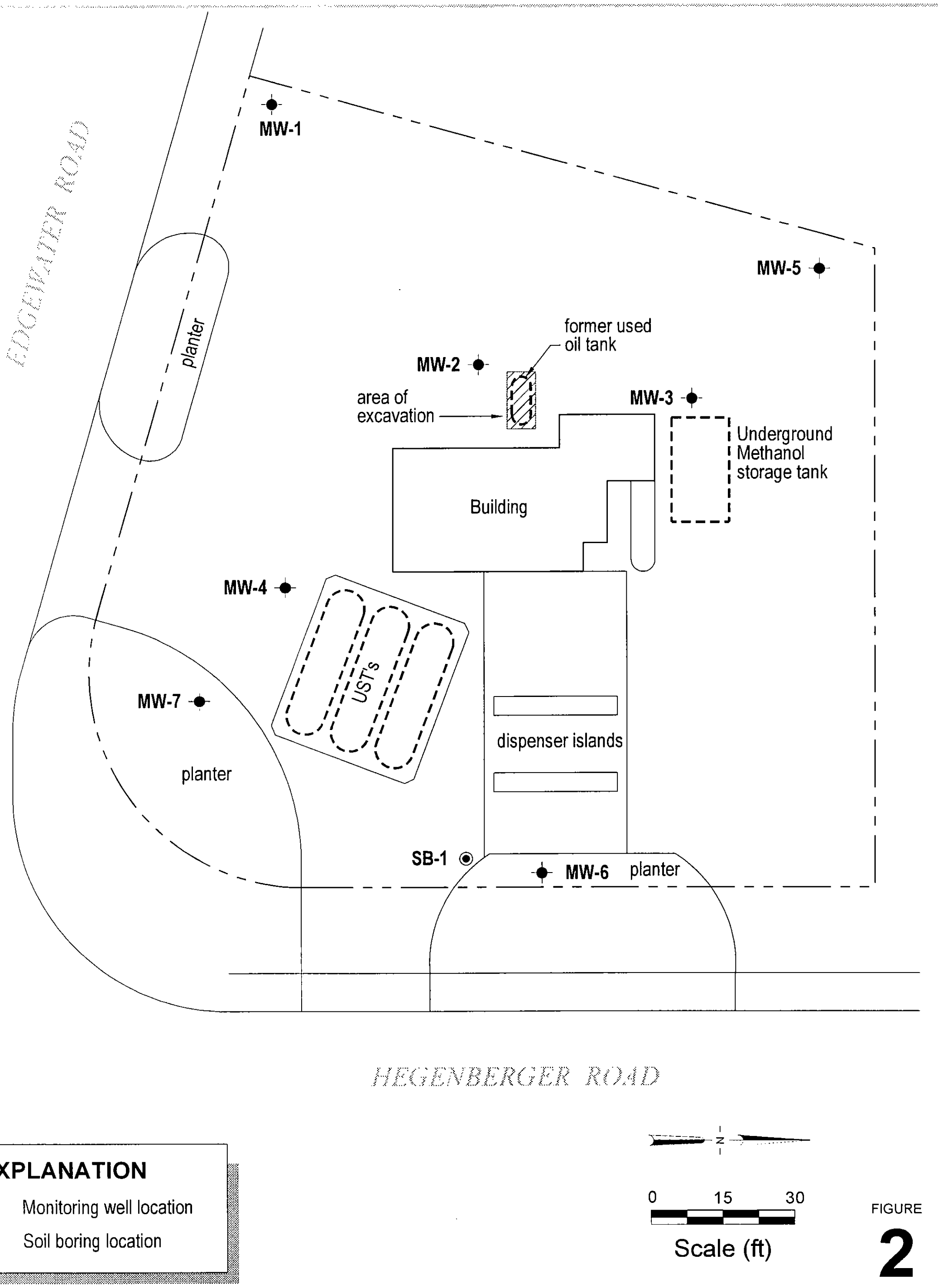
451 Hegenberger Road

Oakland, California

CAMBRIA

Vicinity Map

07/02/03



EXPLANATION

MW-1 ● Monitoring well location

SB-1 ◉ Soil boring location

FIGURE
2

Chevron Service Station 9-1851

451 Hegenberger Road

Oakland, California

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Site Plan

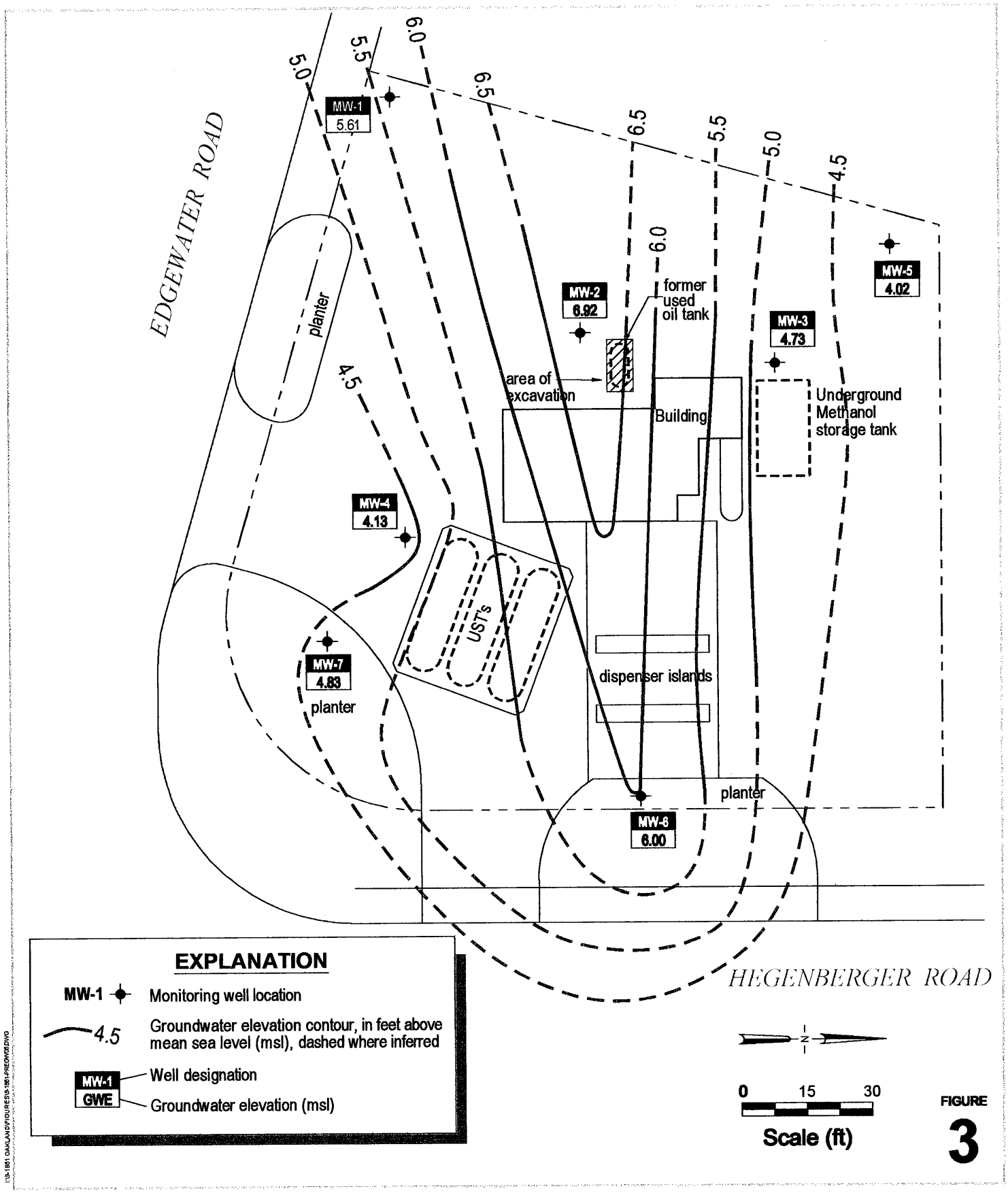

FIGURE 3

Chevron Service Station 9-1851

451 Hegenberger Road

Oakland, California

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Groundwater Elevation Contour Map

Pre-Purge

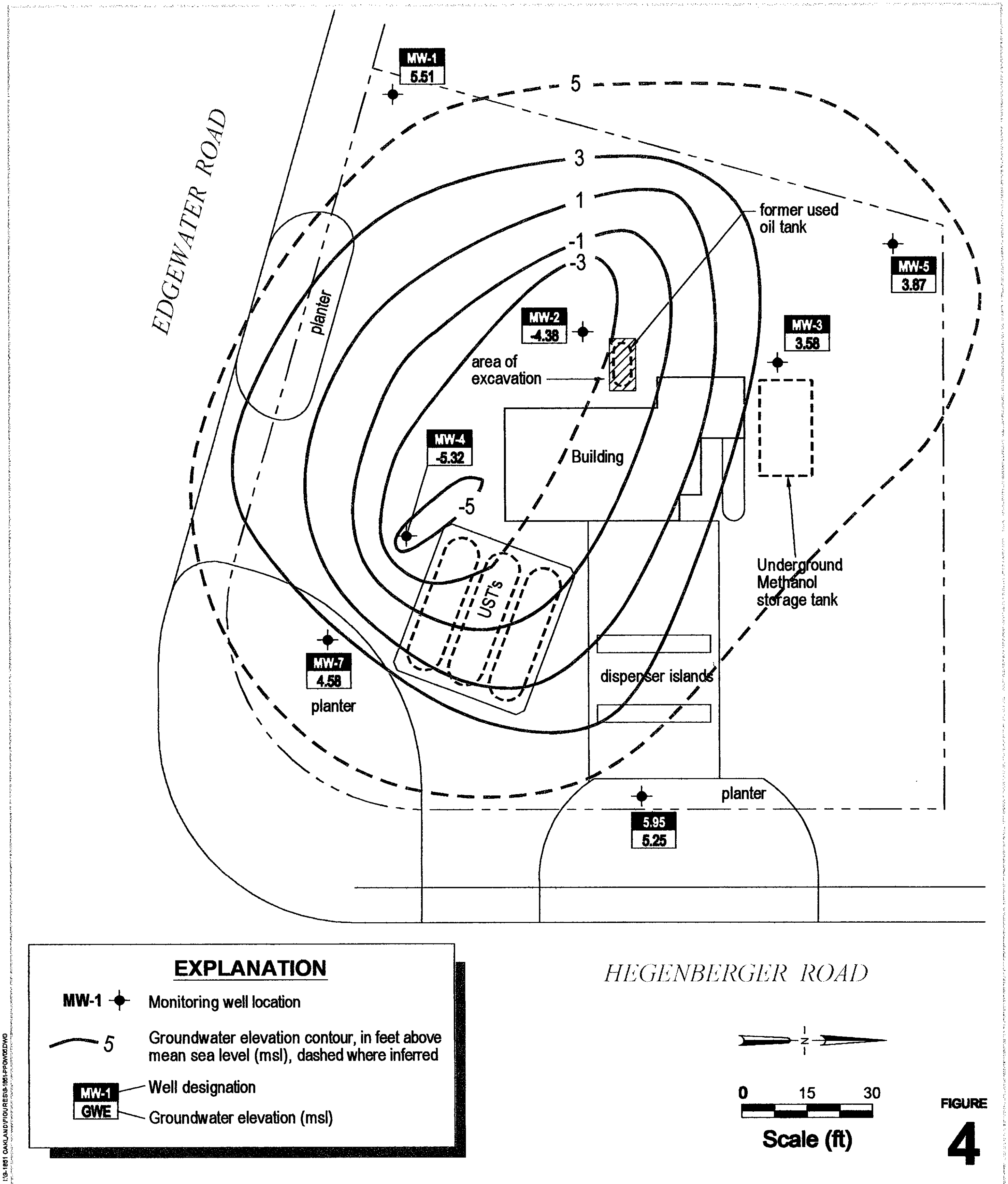

FIGURE
4

Chevron Service Station 9-1851

451 Hegenberger Road

Oakland, California

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Groundwater Elevation Contour Map

Post-Purge

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APPENDIX A
LABORATORY ANALYTICAL RESULTS

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

925-842-8582

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 938804. Samples arrived at the laboratory on Saturday, April 09, 2005. The PO# for this group is 99011184 and the release number is INGLIS.

Client Description			Lancaster Labs Number
MW-2-pre-W-050407	Grab	Water	4499733
MW-2-post-W-050407	Grab	Water	4499734
MW-3-pre-W-050407	Grab	Water	4499735
MW-3-post-W-050407	Grab	Water	4499736
MW-4-pre-W-050407	Grab	Water	4499737
MW-4-post-W-050407	Grab	Water	4499738

1 COPY TO Cambria Environmental Attn: Bob Foss

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Questions? Contact your Client Services Representative
Angela M Miller at (717) 656-2300.

Respectfully Submitted,

Michele M. Turner

Michele M. Turner
Manager

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 4499733

MW-2-pre-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-2-pre
Collected:04/07/2005 14:15 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

2-PRE

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
05553	TPH - DRO CA LUFT (Waters)	n.a.	3,500.	50.	ug/l	2
02500	TPH Fuels by GC (Waters)					
02501	Total TPH	n.a.	4,200.	400.	ug/l	10
02508	TPH Motor Oil C16-C36	n.a.	4,200.	400.	ug/l	10
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	2.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2005 06:33	Linda C Pape	1
05553	TPH - DRO CA LUFT (Waters)	CALUFT-DRO/8015B, Modified	1	04/16/2005 05:47	Sarah M Snyder	2
02500	TPH Fuels by GC (Waters)	SW-846 8015B, modified	1	04/16/2005 05:14	Matthew E Barton	10
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 22:04	Dawn M Harle	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2005 06:33	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/13/2005 22:04	Dawn M Harle	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	04/12/2005 18:05	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	04/12/2005 18:05	JoElla L Rice	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 4499733

MW-2-pre-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-2-pre
Collected:04/07/2005 14:15 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

2-PRE

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 4499734

MW-2-post-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-2-post
Collected:04/07/2005 15:20 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

2-PST

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH = 4.					
05553	TPH - DRO CA LUFT (Waters)	n.a.	2,900.	50.	ug/l	1
02500	TPH Fuels by GC (Waters)					
02501	Total TPH	n.a.	3,400.	400.	ug/l	10
02508	TPH Motor Oil C16-C36	n.a.	3,400.	400.	ug/l	10
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	34.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2005 07:01	Linda C Pape	1
05553	TPH - DRO CA LUFT (Waters)	CALUFT-DRO/8015B, Modified	1	04/14/2005 23:12	Sarah M Snyder	1
02500	TPH Fuels by GC (Waters)	SW-846 8015B, modified	1	04/16/2005 06:01	Matthew E Barton	10
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 15:51	Ginelle L Haines	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2005 07:01	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/13/2005 15:51	Ginelle L Haines	n.a.

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Analysis Report

Lancaster Laboratories Sample No. WW 4499734

MW-2-post-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-2-post
Collected:04/07/2005 15:20 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

2-PST

02135	Extraction - DRO Water Special	TPH by CA LUFT	1	04/12/2005 18:05	JoElla L Rice	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	04/12/2005 18:05	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories Sample No. WW 4499735

MW-3-pre-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-3-pre
Collected:04/07/2005 10:00 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

3-PRE

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH = 7.					
05553	TPH - DRO CA LUFT (Waters)	n.a.	300.	50.	ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	86.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2005 07:30	Linda C Pape	1
05553	TPH - DRO CA LUFT (Waters)	CALUFT-DRO/8015B, Modified	1	04/15/2005 00:19	Sarah M Snyder	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 22:25	Dawn M Harle	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2005 07:30	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/13/2005 22:25	Dawn M Harle	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	04/12/2005 18:05	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories Sample No. WW 4499736

MW-3-post-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-3-post
Collected:04/07/2005 11:30 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

3-PST

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	100.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
05553	TPH - DRO CA LUFT (Waters)	n.a.	240.	50.	ug/l	1
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	420.	3.	ug/l	5
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2005 07:59	Linda C Pape	1
05553	TPH - DRO CA LUFT (Waters)	CALUFT-DRO/8015B, Modified	1	04/15/2005 00:41	Sarah M Snyder	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 17:04	Ginelle L Haines	5
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 22:46	Dawn M Harle	1
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2005 07:59	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/13/2005 22:46	Dawn M Harle	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	2	04/13/2005 17:04	Ginelle L Haines	n.a.
02135	Extraction - DRO Water Special	TPH by CA LUFT	1	04/12/2005 18:05	JoElla L Rice	1

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Analysis Report

Lancaster Laboratories Sample No. WW 4499737

MW-4-pre-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-4-pre
Collected:04/07/2005 12:00 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

4-PRE

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	240.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH = 6.					
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	1,900.	13.	ug/l	25
05401	Benzene	71-43-2	N.D.	3.	ug/l	5
05407	Toluene	108-88-3	N.D.	3.	ug/l	5
05415	Ethylbenzene	100-41-4	N.D.	3.	ug/l	5
06310	Xylene (Total)	1330-20-7	N.D.	3.	ug/l	5
	Due to the level of methyl tertiary butyl ether, the reporting limits for all GC/MS volatile compounds were raised.					

State of California Lab Certification No. 2116
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2005 08:28	Linda C Pape	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 17:28	Ginelle L Haines	5
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 17:53	Ginelle L Haines	25
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2005 08:28	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/13/2005 17:28	Ginelle L Haines	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	2	04/13/2005 17:53	Ginelle L Haines	n.a.

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Analysis Report

Lancaster Laboratories Sample No. WW 4499738

MW-4-post-W-050407 Grab Water
Facility# 91851 CETR
451 Hegenberger-Oakland T0600102238 MW-4-post
Collected:04/07/2005 13:35 by MT

Account Number: 10880

Submitted: 04/09/2005 09:25
Reported: 04/21/2005 at 11:28
Discard: 05/22/2005

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

4-PST

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO - Waters	n.a.	130.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06054	BTEX+MTBE by 8260B					
02010	Methyl Tertiary Butyl Ether	1634-04-4	730.	5.	ug/l	10
05401	Benzene	71-43-2	N.D.	1.	ug/l	2
05407	Toluene	108-88-3	N.D.	1.	ug/l	2
05415	Ethylbenzene	100-41-4	N.D.	1.	ug/l	2
06310	Xylene (Total)	1330-20-7	N.D.	1.	ug/l	2
	Due to the level of methyl tertiary butyl ether, the reporting limits for all GC/MS volatile compounds were raised.					

State of California Lab Certification No. 2116
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	04/14/2005 08:57	Linda C Pape	1
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 08:45	Ginelle L Haines	2
06054	BTEX+MTBE by 8260B	SW-846 8260B	1	04/13/2005 09:09	Ginelle L Haines	10
01146	GC VOA Water Prep	SW-846 5030B	1	04/14/2005 08:57	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/13/2005 08:45	Ginelle L Haines	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	2	04/13/2005 09:09	Ginelle L Haines	n.a.

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Analysis Report

Quality Control Summary

Client Name: ChevronTexaco
Group Number: 938804
Reported: 04/21/05 at 11:29 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 051010021A	Sample number(s): 4499733-4499734							
Total TPH	N.D.	40.	ug/l	70	85	57-115	19	20
TPH Motor Oil C16-C36	N.D.	40.	ug/l					
Batch number: 051010023A	Sample number(s): 4499733-4499736							
TPH - DRO CA LUFT (Waters)	N.D.	50.	ug/l	74	85	64-125	14	20
Batch number: 05104A16A	Sample number(s): 4499733-4499738							
TPH-GRO - Waters	N.D.	50.	ug/l	103	104	70-130	1	30
Batch number: Z051031AA	Sample number(s): 4499738							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96		77-127		
Benzene	N.D.	0.5	ug/l	85		85-117		
Toluene	N.D.	0.5	ug/l	90		85-115		
Ethylbenzene	N.D.	0.5	ug/l	95		82-119		
Xylene (Total)	N.D.	0.5	ug/l	94		83-113		
Batch number: Z051032AA	Sample number(s): 4499734,4499736-4499737							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	103		77-127		
Benzene	N.D.	0.5	ug/l	89		85-117		
Toluene	N.D.	0.5	ug/l	89		85-115		
Ethylbenzene	N.D.	0.5	ug/l	92		82-119		
Xylene (Total)	N.D.	0.5	ug/l	92		83-113		
Batch number: Z051033AA	Sample number(s): 4499733,4499735-4499736							
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	105		77-127		
Benzene	N.D.	0.5	ug/l	93		85-117		
Toluene	N.D.	0.5	ug/l	95		85-115		
Ethylbenzene	N.D.	0.5	ug/l	97		82-119		
Xylene (Total)	N.D.	0.5	ug/l	97		83-113		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 05104A16A	Sample number(s): 4499733-4499738								
TPH-GRO - Waters	115		63-154						
Batch number: Z051031AA	Sample number(s): 4499738								
Methyl Tertiary Butyl Ether	96	98	69-134	1	30				
Benzene	92	92	83-128	0	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco
Group Number: 938804
Reported: 04/21/05 at 11:29 AM

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Toluene	97	98	83-127	1	30				
Ethylbenzene	102	102	82-129	1	30				
Xylene (Total)	100	101	82-130	0	30				
Batch number: Z051032AA	Sample number(s): 4499734,4499736-4499737								
Methyl Tertiary Butyl Ether	107	108	69-134	1	30				
Benzene	95	98	83-128	3	30				
Toluene	97	99	83-127	2	30				
Ethylbenzene	102	102	82-129	0	30				
Xylene (Total)	100	101	82-130	1	30				
Batch number: Z051033AA	Sample number(s): 4499733,4499735-4499736								
Methyl Tertiary Butyl Ether	108	109	69-134	1	30				
Benzene	99	100	83-128	1	30				
Toluene	102	103	83-127	0	30				
Ethylbenzene	106	104	82-129	1	30				
Xylene (Total)	104	103	82-130	1	30				

Surrogate Quality Control

Analysis Name: TPH Fuels by GC (Waters)
Batch number: 051010021A

	Chlorobenzene	Orthoterphenyl
4499733	63	104
4499734	64	80
Blank	58	74
LCS	64	93
LCSD	120	112
Limits:	14-141	37-146

Analysis Name: TPH - DRO CA LUFT (Waters)
Batch number: 051010023A

	Orthoterphenyl
4499733	95
4499734	84
4499735	80
4499736	74
Blank	93
LCS	101
LCSD	109
Limits:	52-134

Analysis Name: TPH-GRO - Waters
Batch number: 05104A16A

	Trifluorotoluene-F
4499733	101
4499734	101

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Analysis Report

Quality Control Summary

Client Name: ChevronTexaco Group Number: 938804
Reported: 04/21/05 at 11:29 AM

Surrogate Quality Control

4499735	101
4499736	101
4499737	102
4499738	102
Blank	100
LCS	101
LCSD	102
MS	103
Limits:	70-142

Analysis Name: BTEX+MTBE by 8260B
Batch number: Z051031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4499738	100	100	91	92
Blank	100	102	91	91
LCS	102	104	92	95
MS	101	101	92	94
MSD	101	102	91	95
Limits:	81-120	82-112	85-112	83-113

Analysis Name: BTEX+MTBE by 8260B
Batch number: Z051032AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4499734	111	111	94	100
4499737	109	110	94	98
Blank	109	111	94	98
LCS	112	110	94	101
MS	106	106	95	101
MSD	107	109	94	101
Limits:	81-120	82-112	85-112	83-113

Analysis Name: BTEX+MTBE by 8260B
Batch number: Z051033AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4499733	108	106	95	95
4499735	102	106	95	96
4499736	103	105	95	96
Blank	103	104	95	96
LCS	107	99	95	98
MS	104	104	95	98
MSD	110	104	95	98
Limits:	81-120	82-112	85-112	83-113

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

040805-02

Acct. #: 10680 Sample #: 4494233-8

For Lancaster Laboratories use only 6H SCR#: 938804

Facility #: Former Chevron #9-1851 - BSL AM 4/11/05
Site Address: 451 Hegenberger Rd, Oakland
Chevron PM: M. Ingle Lead Consultant:
Consultant/Office: Cambria/Emeryville
Consultant Prj. Mgr.: R. Foss
Consultant Phone #: 510 420 3348 Fax #: 510 420 9170
Sampler: M. Terry
Service Order #: ☐ Non SAR:

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers
MW-2-pre	W			05 04 07	1415		X		7
MW-2-post					1520				7
MW-3-pre					1000				7
MW-3-post					1130				7
MW-4-pre					1200				6
MW-4-post					1335				6

Analyses Requested

Preservation Codes

BTEX + MTBE 8260 ■ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	___ Oxygenates	Lead 7420 ☐ 7421 ☐	TPH-mo - 8015
X	X	X				X
X	X	X				X
X	X	X				
X	X	X				
X	X					
X	X					

MT 4/7/05

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
Mona Terry	4.8.05	1145	Andrea Arruza	4805	1145
Andrea Arruza	4805	1530	DHL	4/8/05	
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier: UPS FedEx Other DHL
Temperature Upon Receipt 2.0°-2.2°C°

Received by: Date 4/9/05 Time 0925
Custody Seals Intact? (Yes) No

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.