

June 16, 2004

TRC Project No. 42016101

Don Hwang Alameda County Health Services 1131 Harbor Bay Parkway Alameda, CA 94502-6577

RE:

Quarterly Status Report - First Quarter 2004

76 Service Station #1871, 96 Macarthur Boulevard, Oakland, California

Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the First Quarter 2004 Quarterly Status Report for the subject site, shown in attached Figure 3.

PREVIOUS ASSESSMENTS

The site is located on the north corner of the intersection of MacArthur Boulevard and Harrison Street in Oakland, California. The site is currently an operating service station.

May 1992: Roux Associates (Roux) performed a dispenser and product piping modification project.

October 1992: Roux installed three 4-inch diameter groundwater monitoring wells onsite.

January 1993: Quarterly groundwater sampling and monitoring began.

August 1994: A 280-gallon single-wall steel waste oil underground storage tank (UST) was replaced with a 550-gallon double-wall fiberglass UST. Conformation sampling was performed.

February 1996: The Alameda County Health Care Service Agency (ACHCSA) approved Unocal's request to reduce the groundwater monitoring and sampling program from quarterly to semiannually (KEI, 1996).

March 1996: Two monitoring wells were installed at the site.

May 1998: All underground and aboveground equipment and facilities were removed by John's Excavating of Santa Rosa, California. Facilities included two 12,000-gallon double-wall steel gasoline USTs, one 550-gallon double-wall steel waste oil UST, two hydraulic lifts, two dispenser islands and related single-wall product piping, and one service station building. Gettler-Ryan Inc.

QSR – First Quarter 2004 76 Service Station #1871, Oakland, California June 16, 2004 Page 2

(GR) personnel performed soil and groundwater sampling activities in conjunction with the station demolition. A total of 1,252.78 tons of soil were removed from the site during demolition activities and transported to Forward Landfill for disposal.

September 1998: Two wells that were damaged during site demolition activities were drilled out and the boreholes backfilled with neat cement to grade. In addition, one soil boring was advanced onsite to a total depth of 16.5 feet below ground surface (bgs). Groundwater was encountered at approximately 10.5 feet bgs. Soil and groundwater samples were collected for use in a Risk Based Corrective Action (RBCA) analysis for the site.

February 1999: GR performed a RBCA evaluation. The RBCA evaluation determined that, since the site was scheduled for construction of a fuel dispensing facility covered with concrete and asphalt and no groundwater receptors were located within a .25 mile radius of the site, the potential threat to public health and environment was not of significant concern.

June 1999: GR installed three offsite groundwater monitoring wells, and advanced nine soil borings on and near the site. Depth-discrete soil and groundwater samples were collected.

April 2002: An ozone injection system was installed and activated at the site.

September 2003: Operations and maintenance responsibilities for the remediation system were transferred to Secor International Inc. (SECOR).

October 2003: Site environmental consulting responsibilities were transferred to TRC.

SENSITIVE RECEPTORS

According to the RBCA evaluation, no groundwater receptors were located within a .25 mile radius of the site. No other sensitive receptor survey has been identified.

MONITORING AND SAMPLING

One onsite and six offsite wells are currently monitored quarterly. All wells were sampled this quarter. The groundwater gradient and flow direction were 0.05 foot/foot to the southwest. These data were consistent with historical data.

CHARACTERIZATION STATUS

Total purgeable petroleum hydrocarbons (TPPH) were detected in four of seven wells, with a maximum concentration of 34,000 micrograms per liter (µg/l) in onsite well MW-1.

Benzene was detected in two of seven wells, with a maximum concentration of 690 μ g/l in onsite well MW-1.



QSR – First Quarter 2004 76 Service Station #1871, Oakland, California June 16, 2004 Page 3

Methyl tertiary butyl ether (MTBE) was detected in five of seven wells, with a maximum concentration of 19,000 µg/l in offsite well MW-7.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring wells MW-10 and MW-11 were non-detect for benzene and MTBE, and had low levels of TPPH. Perimeter downgradient monitoring well MW-9 contained 1,200 μg/l MTBE and was non-detect for benzene and TPPH.

REMEDIATION STATUS

April 2002: GR installed an ozone sparging system utilizing 10 ozone sparge wells completed to maximum depths of 25 to 30 feet bgs. The system was activated on April 8, 2002. Since then approximately 88 pounds of ozone have been injected.

First Quarter 2004 Evaluation: Since system activation, hydrocarbon concentrations have declined in MW-1 and MW-6. Hydrocarbon concentrations in MW-7 initially increased, then decreased, and have been relatively stable over the last year. Petroleum hydrocarbon concentrations in perimeter downgradient monitoring wells MW-9 through MW-11 have remained stable.

RECENT CORRESPONDENCE

No correspondence this quarter.

CURRENT QUARTER ACTIVITIES

January 7, 2004: TRC performed groundwater monitoring and sampling. Wastewater generated from well purging and equipment cleaning was stored at TRC's groundwater monitoring facility in Concord, California, and transported by Onyx to the ConocoPhillips Refinery in Rodeo, California, for treatment and disposal.

January-March 2004: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. Approximately 6.3 pounds of ozone was injected during the fourth quarter. No waste was generated at the site.

NEXT QUARTER ACTIVITIES

Continue quarterly monitoring and sampling to assess plume stability and concentration trends.

Continue operating the ozone sparging system to reduce hydrocarbon mass in the subsurface. Continue sampling of monitoring wells MW-1, MW-6, and MW-7 to aid in evaluation of the ozone sparging system.



QSR – First Quarter 2004 76 Service Station #1871, Oakland, California June 16, 2004 Page 4

If you have any questions regarding this report, please call Roger Batra at (925) 688-2466.

Sincerely,

TRC

Roger Batra

Senior Project Manager

Roger Poatra

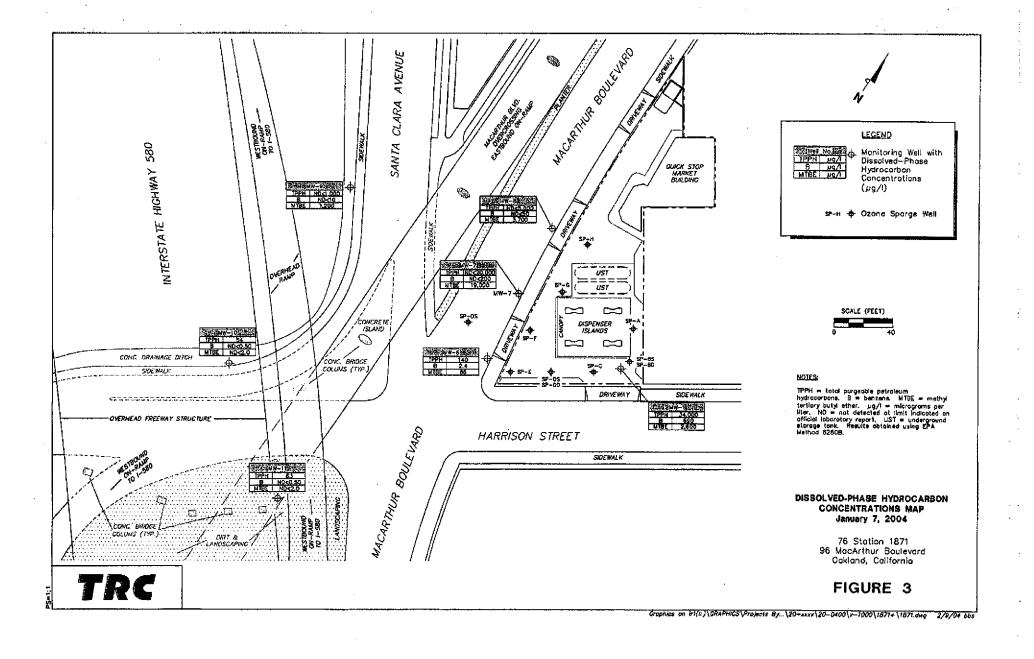
Barbara Moed, R.G.

Senior Project Geolog

Attachment:

Figure 3 – Dissolved Phase Hydrocarbon Concentrations Map, January 7, 2004, from First Quarter 2004 Fluid Level Monitoring and Sampling Report, dated February 20, 2004 by TRC.

cc: Thomas Kosel, ConocoPhillips (hard copy and electronic upload)





June 16, 2004

Don Hwang Alameda County Health Services 1131 Harbor Bay Parkway Alameda, CA 94502-6577 TRC Project No. 42016101



RE: Quarterly Status Report - Fourth Quarter 2003

76 Service Station #1871, 96 MacArthur Boulevard, Oakland, California

Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Fourth Quarter 2003 Quarterly Status Report for the subject site, shown in attached Figure 3.

PREVIOUS ASSESSMENTS

The site is located on the north corner of the intersection of MacArthur Boulevard and Harrison Street in Oakland, California. The site is currently an operating service station.

May 1992: Roux Associates (Roux) performed a dispenser and product piping modification project.

October 1992: Roux installed three 4-inch diameter groundwater monitoring wells onsite.

January 1993: Quarterly groundwater sampling and monitoring began.

August 1994: A 280-gallon single-wall steel waste oil underground storage tank (UST) was replaced with a 550-gallon double-wall fiberglass UST. Conformation sampling was performed.

February 1996: The Alameda County Health Care Service Agency (ACHCSA) approved Unocal's request to reduce the groundwater monitoring and sampling program from quarterly to semiannually (KEI, 1996).

March 1996: Two monitoring wells were installed at the site.

May 1998: All underground and aboveground equipment and facilities were removed by John's Excavating of Santa Rosa, California. Facilities included two 12,000-gallon double-wall steel gasoline USTs, one 550-gallon double-wall steel waste oil UST, two hydraulic lifts, two dispenser islands and related single-wall product piping, and one service station building. Gettler-Ryan Inc. (GR) personnel performed soil and groundwater sampling activities in conjunction with the station

QSR – Fourth Quarter 2003 76 Service Station #1871, Oakland, California June 16, 2004 Page 2

demolition. A total of 1,252.78 tons of soil were removed from the site during demolition activities and transported to Forward Landfill for disposal.

September 1998: Two wells that were damaged during site demolition activities were drilled out and the boreholes backfilled with neat cement to grade. In addition, one soil boring was advanced onsite to a total depth of 16.5 feet bgs. Groundwater was encountered at approximately 10.5 feet bgs. Soil and groundwater samples were collected for use in a Risk Based Corrective Action (RBCA) analysis for the site.

February 1999: GR performed a RBCA evaluation. The RBCA evaluation determined that, since the site was scheduled for construction of a fuel dispensing facility covered with concrete and asphalt and no groundwater receptors were located within a .25 mile radius of the site, the potential threat to public health and environment was not of significant concern.

June 1999: GR installed three offsite groundwater monitoring wells, and advanced nine soil borings on and near the site. Depth-discrete soil and groundwater samples were collected.

April 2002: An ozone injection system was installed and activated at the site.

September 2003: Operations and maintenance responsibilities for the remediation system were transferred to Secor International Inc. (SECOR).

October 2003: Site environmental consulting responsibilities were transferred to TRC.

SENSITIVE RECEPTORS

According to the RBCA evaluation, no groundwater receptors were located within a .25 mile radius of the site. No other sensitive receptor survey has been identified.

MONITORING AND SAMPLING

One onsite and six offsite wells are currently monitored quarterly. All wells were sampled this quarter. The groundwater gradient and flow direction were 0.02 foot/foot to the southwest. These data were consistent with historical data.

CHARACTERIZATION STATUS

Total purgeable petroleum hydrocarbons (TPPH) were detected in five of seven wells, with a maximum concentration of 45,000 micrograms per liter (µg/l) in onsite well MW-1.

Benzene was not detected above the reporting limit, except in onsite well MW-1 at a concentration of $1,400 \mu g/l$.



QSR – Fourth Quarter 2003 76 Service Station #1871, Oakland, California June 16, 2004 Page 3

Methyl tertiary butyl ether (MTBE) was detected in five of seven wells, with a maximum concentration of 22,000 µg/l in offsite well MW-7.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring wells MW-10 and MW-11 were non-detect for TPPH, benzene, and MTBE. Perimeter downgradient monitoring well MW-9 contained 890 µg/l TPPH and 990 µg/l MTBE.

REMEDIATION STATUS

April 2002: GR installed an ozone sparging system utilizing 10 ozone sparge wells completed to maximum depths of 25 to 30 feet bgs. The system was activated on April 8, 2002. Since then approximately 88 pounds of ozone have been injected.

Fourth Quarter 2003 Evaluation: Since system activation, hydrocarbon concentrations have declined in MW-1 and MW-6. Hydrocarbon concentrations in MW-7 initially increased, then decreased, and have been relatively stable over the last three quarters. Petroleum hydrocarbon concentrations in perimeter downgradient monitoring wells MW-9 through MW-11 have remained stable.

RECENT CORRESPONDENCE

No correspondence this quarter.

CURRENT QUARTER ACTIVITIES

October 2, 2003: TRC performed groundwater monitoring and sampling. Wastewater generated from well purging and equipment cleaning was stored at TRC's groundwater monitoring facility in Concord, California, and transported by Onyx to the ConocoPhillips Refinery in Rodeo, California, for treatment and disposal.

October-December 2003: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. Approximately 0.98 pounds of ozone was injected during the fourth quarter. No waste was generated at the site.

NEXT QUARTER ACTIVITIES

Continue quarterly monitoring and sampling to assess plume stability and concentration trends.

Continue operating the ozone sparging system to reduce hydrocarbon mass in the subsurface. Continue sampling of monitoring wells MW-1, MW-6, and MW-7 to aid in evaluation of the ozone sparging system.



QSR – Fourth Quarter 2003 76 Service Station #1871, Oakland, California June 16, 2004 Page 4

If you have any questions regarding this report, please call Roger Batra at (925) 688-2466.

Sincerely,

TRC

Roger Batra

Roger Batra Senior Project Manager Barbara Moed, R.G.
Senior Project Geologist

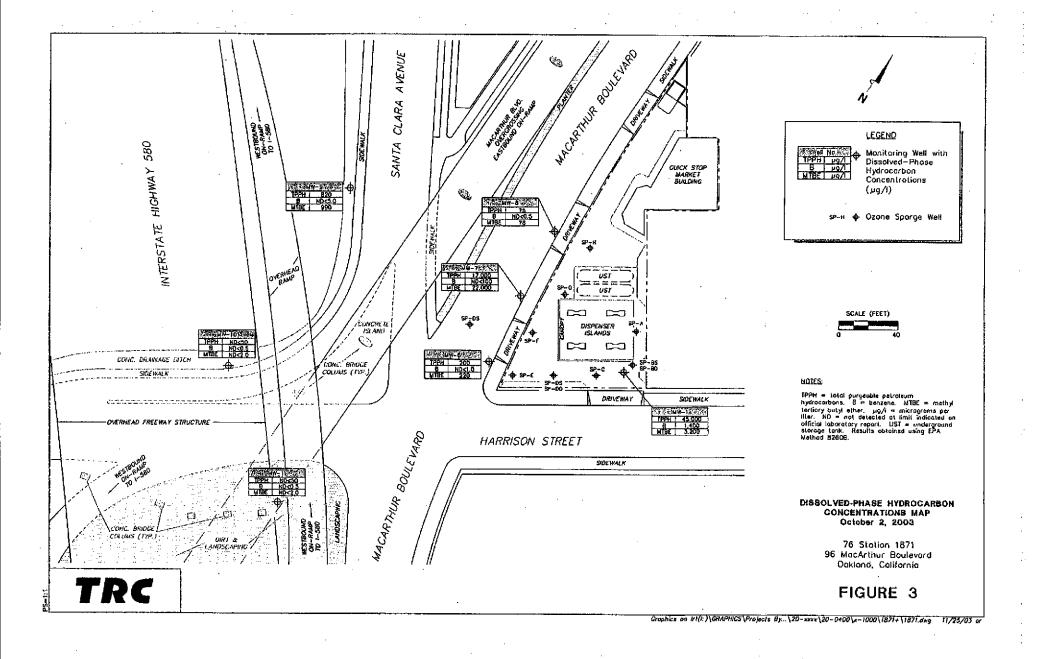
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Exp. 7/31/05

Attachment:

Figure 3 – Dissolved - Phase Hydrocarbon Concentrations Map, October 2, 2003, from Fourth Quarter 2003 Fluid Level Monitoring and Sampling Report, dated December 11, 2003 by TRC.

cc: Thomas Kosel, ConocoPhillips (hard copy and electronic upload)







May 25, 2004

ConocoPhillips Company 76 Broadway Sacramento, California 95818 Alcanada County

JUN 1 8 2004

Environmentario

ATTN:

MR. THOMAS H. KOSEL

SITE:

76 STATION 1871

96 MACARTHUR BOULEVARD

OAKLAND, CALIFORNIA

RE:

QUARTERLY MONITORING REPORT

APRIL THROUGH JUNE 2004

Dear Mr. Kosel:

Please find enclosed our Quarterly Monitoring Report for 76 Station, located at 96 MacArthur Boulevard, Oakland, California. If you have any questions regarding this report, please call us at (949) 753-0101.

Sincerely,

TRC

Anju Farfan

QMS Operations Manager

CC:

Mr. Don Hwang, Alameda County Health Care Services

Ms. Barbara Moed, TRC

Enclosures 1871R03.QMS



QUARTERLY MONITORING REPORT APRIL THROUGH JUNE 2004

76 STATION 1871 96 MacArthur Boulevard Oakland, California

Prepared For:

Mr. Thomas H. Kosel CONOCOPHILLIPS COMPANY 76 Broadway Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations May 25, 2004

QUARTERLY MONITORING REPORT

	LIST OF ATTACHMENTS
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key
	Table 1: Summary of Groundwater Levels and Chemical Analysis Results
	Table 2: Historic Groundwater Levels and Chemical Analysis Results
	Table 3: Summary of Additional Chemical Analysis Results
Figures	Figure 1: Vicinity Map
	Figure 2: Groundwater Elevation Contour Map
	Figure 3: Dissolved-Phase TPPH Concentration Map
	Figure 4: Dissolved-Phase Benzene Concentration Map
	Figure 5: Dissolved-Phase MTBE Concentration Map
Graphs	Benzene Concentrations vs. Time
	Hydrographs
Field Activities	General Field Procedures
	Groundwater Sampling Field Notes
Laboratory	Official Laboratory Reports
Reports	Quality Control Reports
	Chain of Custody Records
Statements	Purge Water Transport and Disposal
	Limitations

Summary of Gauging and Sampling Activities April 2004 through June 2004 76 Station 1871

76 Station 187*°* 96 MacArthur Oakland, CA

76 Station

96 MacArthur

	rmation:

Site:

Oakland, CA

Project Coordinator/Phone Number: Thomas Kosel/916-558-7666
Groundwater wells onsite: 1
Groundwater wells offsite: 6

Field Activity: TRC

Sampling consultant: TRC
Date(s) sampled: 04/02/04
Groundwater wells gauged: 7

Groundwater wells gauged: 7
Groundwater wells sampled: 7

Purging method: bailer/diaphragm pump
Treatment/disposal method during sampling event: Onyx/Rodeo Unit 100

Free product pumpouts other than sampling event: No Treatment/Disposal method during free product pumpouts: N/A

Site Hydrogeology:

Minimum depth to groundwater (feet bgs): 7.49

Maximum depth to groundwater (feet bgs): 18.01

Average groundwater elevation (feet relative to mean sea level): 69.20

Average change in groundwater elevations since previous event (feet): -0.87

Groundwater gradient and flow direction: 0.05 ft/ft, southwest

Previous gradient and/or flow direction (and date): 0.05 ft/ft, southwest (01/07/04)

Groundwater Condition (Benzene Maximum Contaminant Level [MCL] = 1.0 µg/l)

Wells with benzene concentrations below MCL:

Wells with benzene concentrations at or above MCL:

1

Minimum benzene concentration (µg/l):

ND

Maximum benzene concentration (µg/l): 1.8 (MW-1)

 Minimum MTBE concentration (μg/l):
 ND

 Maximum MTBE concentration (μg/l):
 5900

 Minimum TPPH concentration (μg/l):
 ND

Maximum TPPH concentration (μg/l): 3400 (MW-7)

Groundwater wells with free product; 0
Minimum free product thickness (feet): 0
Maximum free product thickness (feet): 0

Additional Information:

This report presents the results of groundwater monitoring and sampling activities performed by TRC. Please contact the primary consultant for other specific information on this site.

TABLES

TABLE KEY

ABBREVIATIONS / SYMBOLS

LPH = liquid-phase hydrocarbons

μg/l = micrograms per liter mg/l = milligrams per liter

ND = not detected at or above laboratory detection limit

DTSC = Department of Toxic Substances Control

N/A = not applicable DNA = data not available

Trace = less than 0.01 foot of LPH in well

USTs = underground storage tanks

- not analyzed, measured, or collected

TPH-G = total petroleum hydrocarbons with gasoline distinction BTEX = benzene, toluene, ethyl benzene, and total xylenes TPH-D = total petroleum hydrocarbons with diesel distinction

TRPH = total recoverable petroleum hydrocarbons

MTBE = methyl tertiary butyl ether
TAME = tertiary amyl methyl ether
ETBE = ethyl tertiary butyl ether

DIPE = di-isopropyl ether
TBA = tertiary butyl alcohol
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene

1,2-DCE = cis- and trans-1,2-Dichloroethene

PCE = tetrachloroethene TCA = trichloroethane TCE = trichloroethene

PCB = polychlorinated biphenyls

TPPH = total purgeable petroleum hydrocarbons

NOTES

Elevations are in feet above mean sea level.

Groundwater elevation for wells with LPH is calculated as follows:

Surface elevation – depth to water + (0.75 x LPH thickness).

Concentration Graphs have been modified to plot non-detect results at the reporting limit stated in the official laboratory report. All non-detect results prior to the Second Quarter 2000 were plotted at $0.1 \,\mu g/l$ for graphical display.

J = estimated concentration, value is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL)

REFERENCE

TRC began groundwater monitoring and sampling activities in October 2003. Historical data for 76 Station 1871 was provided by Gettler-Ryan Inc., Dublin, California, in an excel table received in September 2003.

Table 1
SUMMARY OF GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS
April 2, 2004
76 Station 1871

TOC	Depth to	LPH	Ground- Change in	TPH-G	TPPH	Benzene	7

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
M	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	$(\mu g/l)$	(μg/l)	
MW-1		(Screen I	nterval in fe	et: 9.5-24	.5)									
4/2/04	86.99	13.18	0.00	73.81	-0.88		350	1.8	ND<0.50	6.2	30		19	
MW-6		(Screen I	nterval in fe	et: 5.0-25	.0)									
4/2/04	79.67	8.63	0.00	71.04	-0.55		3200	ND<20	ND<20	ND<20	ND<40		5900	
MW-7		(Screen I	nterval in fe	et: 5.0-25	.0)									
4/2/04	80.67	8.09	0.00	72.58	-0.82		3400	ND<20	ND<20	ND<20	ND<40		5100	
MW-8		(Screen I	nterval in fe	et: 5.0-25.	.0)				•					
4/2/04	81.71	8.51	0.00	73.20	-0.30		3000	ND<20	ND<20	ND<20	ND<40		5200	
MW-9		(Screen I	nterval in fe	et: DNA)										
4/2/04	82.07	15.08	0.00	66.99	-0.43		510	ND<5.0	ND<5.0	ND<5.0	ND<10		850	
MW-10		(Screen I	nterval in fe	et: DNA)										
4/2/04	74.98	7.49	0.00	67.49	-1.27		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.0	
MW-11		(Screen I	nterval in fe	et: DNA)										
4/2/04	77.31	18.01	0.00	59.30	-1.81		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	

Table 2
HISTORIC GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS
November 1992 Through April 2004

76 Station 1871

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	
MW-1	(Screen Inte	erval in feet	t: 9.5-24.5)										
1/25/93	3 81.18		0.00			120000		2100	4600	4900	22000			
4/29/93	81.18	13.71	0.00	67.47		100000		850	2000	4300	19000			
7/16/93	81.18	14.51	0.00	66.67	-0.80	29000		590	560	980	4200			
10/19/9	3 81.18	15.20	0.00	65.98	-0.69	67000		1400	2600	2900	5000			
1/20/94	4 81.18	15.17	0.00	66.01	0.03	92000		1200	3000	3400	17000			
4/13/94	4 81.18	14.44	0.00	66.74	0.73	51000		1000	2600	3200	15000			
7/13/94	4 81.18	14.88	0.00	66.30	-0.44	35000		550	150	1400	5700			
10/10/9	4 81.18	15.55	0.00	65.63	-0.67	52000		1000	810	3300	12000			
1/10/95	81.18	12.44	0.00	68.74	3.11	810		16	18	59	250			
4/17/95	81.18	12.68	0.00	68.50	-0.24	48000		880	530	2500	11000			
7/24/9:	5 81.18	13.97	0.00	67.21	-1.29	48000		1500	420	2700	9700			
10/23/9	5 81.18	14.85	0.00	66.33	-0.88	47000		780	210	2100	11000	270		
1/18/96	5 81.18	14.21	0.00	66.97	0.64	30000		1500	500	3500	13000	2400	••	
4/18/96	86.24	13.40	0.00	72.84	5.87	66000		2700	2200	3100	13000	57000		
7/24/90	6 86.24	14.15	0.00	72.09	-0.75	5600		2100	ND	160	160	24000		
10/24/9	6 86.24	14.85	0.00	71.39	-0.70	110000		7500	8000	3300	14000	58000		
1/28/9	7 86.24	11.25	0.00	74.99	3.60	94000		7700	19000	3100	15000	120000		
7/29/9	7 86.24	14.67	0.00	71.57	-3.42	ND		ND	ND	ND	ND	70000		
1/14/9	8 86.24	12.27	0.00	73.97	2.40	85000		6100	10000	3000	17000	110000		
7/1/98	86.24	14.32	0.00	71.92	-2.05	110000		8700	12000	2700	15000	110000		
6/18/95	9 86.24	13.93	0.00	72.31	0.39	49000		6900	6500	380	12000	72000	47000	
1/21/0	0 86.24	15.05	0.00	71.19	-1.12	63700		5520	2000	2640	13100	57100		
7/10/00	0 86.24	13.97	0.00	72.27	1.08	67800		9910	4120	3330	16100	67400	54000	
1/4/01	86.24	14.92	0.00	71.32	-0.95	63900		6270	784	2,670	12,900		38100	
7/16/0	1 86.24	14.32	0.00	71.92	0.60	66000		7100	330	2300	9800	36000	41000	

Page 1 of 7

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)
	continued												
1/31/02			0.00	73.45	1.53	42000		5800	1800	2000	8200	26000	26000
4/11/0			0.00	73.35	-0.10	58000		2900	1200	1800	10000		19000
7/11/02			0.00	73.03	-0.32		5900	330	ND<10	230	600	3400	3400
10/15/0			0.00	72.28	-0.75		470	16	ND<2.5	14	16	390	390
1/14/03			0.00	74.22	1.94		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	49	49
4/16/03			0.00	73.81	-0.41		510	57	0.62	29	61	160	160
7/16/03		14.26	0.00	72.73	-1.08		27000	260	23	730	3200	1200	1200
10/2/03		14.95	0.00	72.04	-0.69		45000	1400	32	2900	7600		3200
1/7/04	86.99	12.30	0.00	74.69	2.65		34000	690	41	1600	5200		2600
4/2/04	86.99	13.18	0.00	73.81	-0.88		350	1.8	ND<0.50	6.2	30		19
MW-2	(\$	Screen Inte	rval in feet	: DNA)									
11/3/92	76.61			<u></u>		140		2.2	ND	ND	2		
1/25/93	76.61					2100		56	1.1	90	140		
4/29/93	76.61	9.73	0.00	66.88		1500		290	ND	33	11		
7/16/93	76.61	10.17	0.00	66.44	-0.44	510		17	0.6	3.2	2.5		
10/19/9	3 76.61	11.18	0.00	65.43	-1.01	6 7 0		24	1.1	7.7	23	**	
1/20/94	4 76.61	11.12	0.00	65.49	0.06	820	**	97	ND	12	ND		
4/13/94	4 76.61	10.12	0.00	66.49	1.00	550		71	ND	5.1	1.3		
7/13/94	4 76.61	10.86	0.00	65.75	-0.74	2000		490	ND	17	13		
10/10/9	4 76.61	11.48	0.00	65.13	-0.62	2300		340	ND	25	ND		
1/10/95	76.61	8.71	0.00	67.90	2.77	850		3.8	ND	8.5	1.3		
4/17/95	76.61	8.90	0.00	67.71	-0.19	1300		4.7	ND	8.3	1.2		
7/24/95	76.61	9.94	0.00	66.67	-1.04	960		20	ND	4.2	6.2		
10/23/9	5 76.61	10.70	0.00	65.91	-0.76	ND	-	ND	ND	ND	ND	19	
1/18/96	76.61	10.11	0.00	66.50	0.59	900	N-0	300	86	7.6	18	4300	
4/18/96	81.66	9.27	0.00	72.39	5.89	18000		3600	680	890	4100	19000	
7/24/96	81.66	10.02	0.00	71.64	-0.75	100000		13000	21000	2700	16000	120000	
10/24/9	6 81.66	10.78	0.00	70.88	-0.76	800		110	17	11	20	20000	
1/28/97	7 81.66	7.70	0.00	73.96	3.08	45000		2400	2900	2000	7600	29000	

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Comments

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	ТРН-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments -
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	·
	continued													
7/29/9				71.38	-2.58	ND		1.2	0.72	0.63	0.62	17000		
1/14/98			0.00	73.03	1.65	14000		1000	150	790	3300	23000		
7/1/98			0.00	72.13	-0.90	2700		100	ND	180	78	7100		
6/18/99	9													Well was destroyed
MW-3			erval in feet	t: DNA)										
11/3/92						2100		120	15	38	200			
1/25/93					. ==	2300		80	1	55	52			
4/29/93		11.37		66.11		4500		1700	ND	200	140			
7/16/93		12.09		65.39	-0.72	4000		1100	28	52	70			
10/19/9		12.69		64.79	-0.60	3800		42	ND	50	56			
1/20/94		12.65		64.83	0.04	4200		11	ND	21	15			
4/13/94		12.02		65.46	0.63	4200		210	ND	36	53			
7/13/94		12.46		65.02	-0.44	1800		16	16	ND	21			
10/10/9		12.98		64.50	-0.52	4300		11	ND	12	ND			
1/10/95		10.42		67.06	2.56	310		4.6	ND	3.5	2.1			
4/17/95		10.42		67.06	0.00	7800		ND	4.6	300	450	**		
7/24/95		11.76		65.72	-1.34	3200		170	ND	22	16			
10/23/9		12.50		64.98	-0.74	3900		55	ND	19	11	4500		
1/18/96		11.79		65.69	0.71	2200		270	33	26	18	5500		
4/18/96		11.30		71.25	5.56	6000		1800	ND	100	230	48000		
7/24/96		12.17		70.38	-0.87	ND		2500	ND	ND	ND	71000		
10/24/9		12.65		69.90	-0.48	3800		660	ND	15	ND	65000		
1/28/97		9.50	0.00	73.05	3.15	4400		250	13	87	47	54000		
7/29/97		11.99	0.00	70.56	-2.49	ND	~=	3500	ND	220	ND	75000		
1/14/98		10.30		72.25	1.69	ND		430	ND	100	380	37000	**	
7/1/98		11.70		70.85	-1.40	ND		430	ND	ND	ND	45000		777.11
6/18/99														Well was destroyed
MW-4 4/18/96		Screen Into 9.83	erval in feet 0.00	: DNA) 72.21		ND		630	ND	ND	ND	18000		

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Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments -
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/1)	(μg/l)	
	continued													
7/24/9		10.47	0.00	71.57	-0.64	ND		ND	ND	ND	5.2	3900		
10/24/9		11.14	0.00	70.90	-0.67	ND		ND	ND	ND	ND	6300	**	
1/28/9		7.94	0.00	74.10	3.20	1200		490	ND	17	6.8	16000	Pa 64	
7/29/9		10.86	0.00	71.18	-2.92	50		1.5	0.61	0.73	0.78	15000	**	
1/14/9		8.73	0.00	73.31	2.13	ND		ND	ND	ND	ND	5200		
7/1/98		10.51	0.00	71.53	-1.78	ND		ND	ND	ND	ND	640		
6/18/99	9 82.04													Well was destroyed
MW-5			rval in feet	: DNA)										
4/18/9		9.65	0.00	72.15		31000		5500	1400	1700	8100	66000		
7/24/90		10.80	0.00	71.00	-1.15	32000		6400	ND	1600	6100	120000		
10/24/9		11.40	0.00	70.40	-0.60	17000		6900	ND	970	130	84000		
1/28/9		7.76	0.00	74.04	3.64	19000		6100	62	82	310	160000		
7/29/9		11.58	0.00	70.22	-3.82	ND		ND	ND	ND	ND	71000		
1/14/98		9.08	0.00	72.72	2.50	ND		3600	ND	ND	ND	80000		
7/1/98		11.25	0.00	70.55	-2.17	6400		2100	21	120	330	61000		
6/18/99	9 81.80						•-	4h M	**		••	40	=-	Well was destroyed
MW-6			rval in feet	: 5.0-25.0)										
6/18/99		9.30	0.00	69.61		. 2100		21	29	ND	47	97000	71000	
1/21/00		9.37	0.00	69.54	-0.07	1880	••	143	31.2	106	196	41200	48800	
7/10/00		8.94	0.00	69.97	0.43	5710		869	209	301	1430	22200	19500	
1/4/01		9.21	0.00	69.70	-0.27	ND		ND	ND	ND	ND		9510	
7/16/0		9.42	0.00	69.49	-0.21	4800		200	21	150	440	29000	34000	
1/31/02		8.50	0.00	70.41	0.92	12000		250	92	500	1500	26000	31000	
4/11/02		9.08	0.00	70.59	0.18	3600		42	32	39	280	120000		
7/11/02		9.70	0.00	69.97	-0.62		12000	ND<100	ND<100	ND<100	ND<200		15000	
10/15/0		9.96	0.00	69.71	-0.26		1300	ND<10	ND<10	ND<10	ND<20		3200	
1/14/03		8.31	0.00	71.36	1.65		ND<50		ND<0.50		ND<1.0		120	
4/16/03		8.21	0.00	71.46	0.10		270		ND<0.50	ND<0.50	1.3		15	
7/16/03	3 79.67	9.43	0.00	70.24	-1.22		290	39	0.6	ND<0.50	15		150	

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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (μg/l)	TPPH 8260B (μg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (μg/l)	MTBE 8260B (μg/l)	Comments
			(Icet)	(ICCI)	(IEEL)	(μg/1)	(μg/1)	(μg/1)	(181)	(48/1)	(µg/1)	(µg))	(481)	
MW-6 10/2/03	continued 3 79.67		0.00	69.75	-0.49		200	ND<1.0	ND<1.0	ND<1.0	ND<2.0		220	
1/7/04			0.00	71.59	1.84		140	2.4	ND<1.0	8.6	13		86	
4/2/04			0.00	71.04	-0.55	**	3200	2.4 ND<20	ND<1.0	0.0 ND<20	ND<40		5900	
					-0.55		3200	ND~20	ND~20	ND~20	ND~40		3700	
MW-7	•		erval in feet 0.00			NID		NID	ND	ND	ND	16000	13000	
6/18/99				71.22		ND		ND						
1/21/00			0.00	70.62	-0.60	ND		ND	ND	ND	ND	12300	18200	
7/10/00			0.00	71.20	0.58	ND		ND	ND	ND	ND	16900	13800	
1/4/01			0.00	70.75	-0.45	ND		ND	ND	ND	0.719		37.3	
7/16/0			0.00	70.90	0.15	ND		ND	ND	ND	ND	7200	4700	
1/31/02		7.91	0.00	72.01	1.11	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	8900	9900	
4/11/02												**		Inaccessible
7/11/02	2 80.67											**		Inaccessible
10/15/0	2 80.67	9.81	0.00	70.86		•	ND<5000	ND<50	ND<50	ND<50	ND<100		12000	
1/14/03	3 80.67	7.89	0.00	72.78	1.92		ND<25000	ND<250	ND<250	ND<250	ND<500		33000	
4/16/03	3 80.67	8.04	0.00	72.63	-0.15		ND<25000	ND<250	ND<250	ND<250	ND<500		37000	
7/16/00	3 80.67	9.19	0.00	71.48	-1.15		25000	ND<250	ND<250	ND<250	ND<500		38000	
10/2/03	3 80.67	9.89	0.00	70.78	-0.70		17000	ND<100	ND<100	ND<100	ND<200		22000	
1/7/04	80.67	7.27	0.00	73.40	2.62		ND<20000	ND<200	460	ND<200	540		19000	
4/2/04	80.67	8.09	0.00	72.58	-0.82		3400	ND<20	ND<20	ND<20	ND<40		5100	
MW-8	C	Screen Int	erval in feet	: 5.0-25.0)										
6/18/99	,		0.00	71.86		ND		ND	ND	ND	ND	290	160	
1/21/00	0 80.96	10.00	0.00	70.96	-0.90	ND		ND	ND	ND	1.09	224	221	
7/10/00	0 80.96	7.94	0.00	73.02	2.06	ND		ND	ND	ND	ND	234	223	
1/4/01	80.96	9.76	0.00	71.20	-1.82	3790		141	8.92	128	375		34200	
7/16/0	1 80.96	9.15	0.00	71.81	0.61	ND		ND	ND	ND	ND	66	70	
1/31/0	2 80.96		0.00	72.97	1.16	5900		86	ND<10	630	390	670	700	
4/11/0:		9.00	0.00	72.71	-0.26	250		2.0	ND<0.50	38	2.2	410		
7/11/0:		9.60	0.00	72.11	-0.60		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		120	
10/15/0		10.60		71.11	-1.00		ND<50		ND<0.50		ND<1.0		21	
									•					

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (μg/l)	TPPH 8260B (μg/l)	Benzene (μg/l)	Toluene (μg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021Β (μg/l)	MTBE 8260B (µg/l)	Comments .
MW-8	continued													
1/14/03		8.63	0.00	73.08	1.97		ND<250	2.6	ND<2.5	18	ND<5.0	-	430	
4/16/03	81.71	8.98	0.00	72.73	-0.35		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		18	
7/16/03	81.71	9.63	0.00	72.08	-0.65		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		140	
10/2/03	81.71	10.41	0.00	71.30	-0.78		75	ND<0.50	ND<0.50	ND<0.50	ND<1.0		78	
1/7/04	81.71	8.21	0.00	73.50	2.20		ND<5000	ND<50	ND<50	ND<50	340		3700	
4/2/04	81.71	8.51	0.00	73.20	-0.30		3000	ND<20	ND<20	ND<20	ND<40		5200	
MW-9	(5	Screen Inte	erval in feet	: DNA)		•								
1/31/02		14.72		67.35		· ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	680	910	
4/11/02	82.07	14.85	0.00	67.22	-0.13	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	620		
7/11/02	82.07	15.39	0.00	66.68	-0.54		580	ND<5.0	ND<5.0	ND<5.0	ND<10		580	
10/15/02	2 82.07	16.16	0.00	65.91	-0.77		570	ND<5.0	ND<5.0	ND<5.0	ND<10		1400	
1/14/03	82.07	14.75	0.00	67.32	1.41		ND<200	ND<2.0	ND<2.0	ND<2.0	ND<4.0		220	
4/16/03	82.07	14.51	0.00	67.56	0.24		ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10		860	•
7/16/03	82.07	15.54	0.00	66.53	-1.03		ND<2500	ND<25	ND<25	ND<25	ND<50		1300	
10/2/03	82.07	16.28	0.00	65.79	-0.74		820	ND<5.0	ND<5.0	ND<5.0	ND<10		990	
1/7/04	82.07	14.65	0.00	67.42	1.63		ND<1000	ND<10	ND<10	ND<10	ND<20		1200	
4/2/04	82.07	15.08	0.00	66.99	-0.43		510	ND<5.0	ND<5.0	ND<5.0	ND<10		850	
MW-10	(8	Screen Inte	erval in feet	: DNA)										
1/31/02	74.98	8.02	0.00	66.96		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	1.2	
4/11/02	74.98	7.60	0.00	67.38	0.42	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
7/11/02	74.98	8.91	0.00	66.07	-1.31		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.1	
10/15/02	2 74.98	11.49	0.00	63.49	-2.58		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	***	ND<2.0	
1/14/03	74.98	8.47	0.00	66.51	3.02		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
4/16/03	74.98	7.92	0.00	67.06	0.55		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
7/16/03	74.98	7.03	0.00	67.95	0.89		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
10/2/03	74.98	7.63	0.00	67.35	-0.60		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
1/7/04	74.98	6.22	0.00	68.76	1.41		54	ND<0.50	ND<0.50	1.3	4.5		ND<2.0	
4/2/04	74.98	7.49	0.00	67.49	-1.27		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	-	1.0	

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MW-11

(Screen Interval in feet: DNA)

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments -
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	
MW-11	continue	i												
1/31/0	2 77.31	11.71	0.00	65.60		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<1.0	
4/11/0	2 77.31	11.95	0.00	65.36	-0.24	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
7/11/0	2 77.31	12.79	0.00	64.52	-0.84	·	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
10/15/0	2 77.31	13.67	0.00	63.64	-0.88		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
1/14/0	3 77.31	13.31	0.00	64.00	0.36		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	-	ND<2.0	
4/16/03	3 77.31	14.08	0.00	63.23	-0.77		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
7/16/03	3 77.31	12.98	0.00	64.33	1.10		65	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
10/2/03	3 77.31	12.96	0.00	64.35	0.02		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
1/7/04	77.31	16.20	0.00	61.11	-3.24		63	ND<0.50	ND<0.50	0.68	2.2		ND<2.0	
4/2/04	77.31	18.01	0.00	59.30	-1.81		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	

Table 3 SUMMARY OF ADDITIONAL CHEMICAL ANALYSIS RESULTS 76 Station 1871

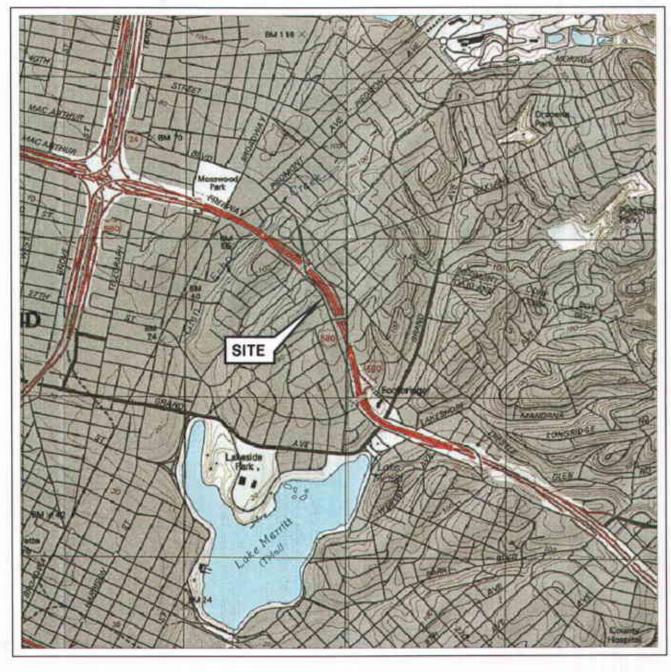
Date Sampled	TPH-D	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8015B	Ethanol 8260B	H- Alkalinity	1,2 DCE		
	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(mg/l)	(µg/l)	(mg/l)	(μg/l)		
MW-1												
6/18/99		ND	ND	ND	ND	ND	ND		ND			
7/16/01		ND	ND	ND	ND	ND	ND					
1/14/03		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500					
7/16/03						**	ND<10000					
10/2/03	n.e		**					ND<25000				
1/7/04								ND<20000				
4/2/04								ND<50				
MW-4												
4/18/96	110					**						
7/24/96	ND			••	**							
10/24/96	ND									**		
1/28/97	210											
7/29/97	ND								**			
1/14/98	ND						***					
7/1/98	ND											
MW-6												
6/18/99		ND	ND	ND	ND	ND	ND			ND		
7/16/01		ND	ND	ND	ND	ND	ND			ND		
7/11/02		ND<100	ND<100	ND<1000	ND<200	ND<100	ND<5000	-		ND<100		
1/14/03		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500			ND<2.0		
7/16/03							ND<500					
10/2/03	-w							ND<1000				
1/7/04								ND<1000				
4/2/04								ND<2000				
MW-7 6/18/99		ND	ND	ND	ND	ND	ND			ND		
1871							Page	1 of 2				

Date Sampled	TPH-D	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8015B	Ethanol 8260B	H- Alkalinity	1,2 DCE
	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(mg/l)	(μg/l)	(mg/l)	(μg/l)
	continued									
7 /16/01		ND	ND	ND	ND	ND	ND			ND
1/14/03	***	ND<1000	ND<1000	ND<50000	ND<1000	ND<1000	ND<250000			ND<1000
7/16/03							ND<250000			
10/2/03		₩.		**				ND<100000		
1/7/04		-						ND<200000		~-
4/2/04								ND<2000		
MW-8										
6/18/99		ND	ND	ND	ND	ND	ND			ND
7/16/01		ND	ND	ND	ND	ND	ND			ND
1/14/03		ND<10	ND<10	ND<500	ND<10	ND<10	ND<2500			ND<10
7/16/03							ND<500		*-	••
10/2/03								ND<500		
1/7/04								ND<50000		
4/2/04								ND<2000		
MW-9										
10/2/03							44	ND<5000		••
1/7/04								ND<10000		
4/2/04								ND<500		
MW-10										
1/31/02		ND<7.1	ND<7.1	ND<140	ND<7.1	ND<7.1	ND<3600			ND<7.1
1/14/03		ND<8.0	ND<8.0	ND<400	ND<8.0	ND<8.0	ND<2000			ND<8.0
7/16/03	**						ND<25000			
10/2/03		'						ND<500		
1/7/04								ND<500		
4/2/04								ND<50		
MW-11										
10/2/03								ND<500		
1/7/04								ND<500		
4/2/04								ND<50		
		Press 2 of 2								

1871

Page 2 of 2

FIGURES





1/4 1/2 3/4 1 MILE

SCALE 1: 24,000

SOURCE:

United States Geological Survey 7.5 Minute Topographic Map: Oakland West Quadrangle

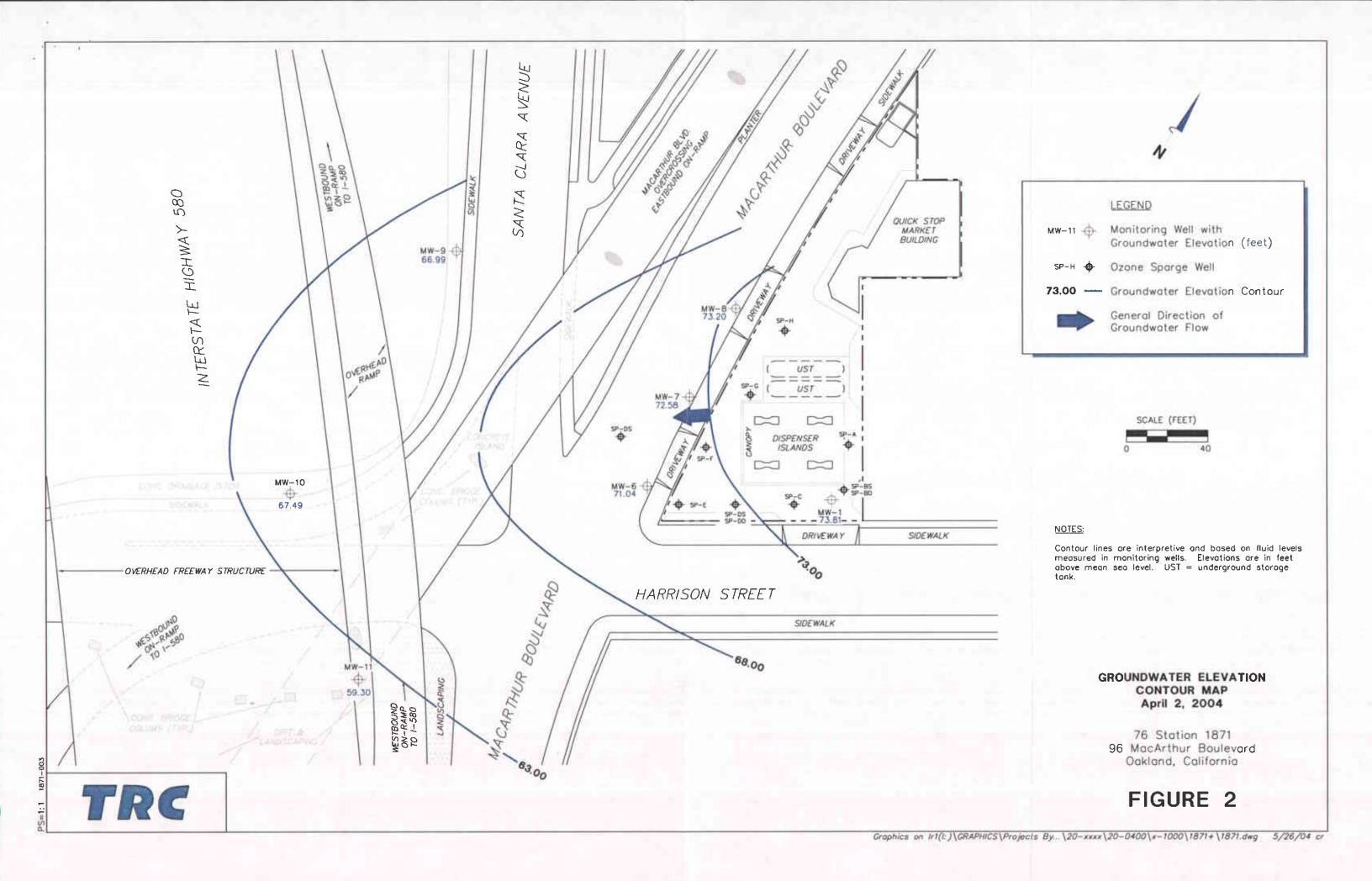


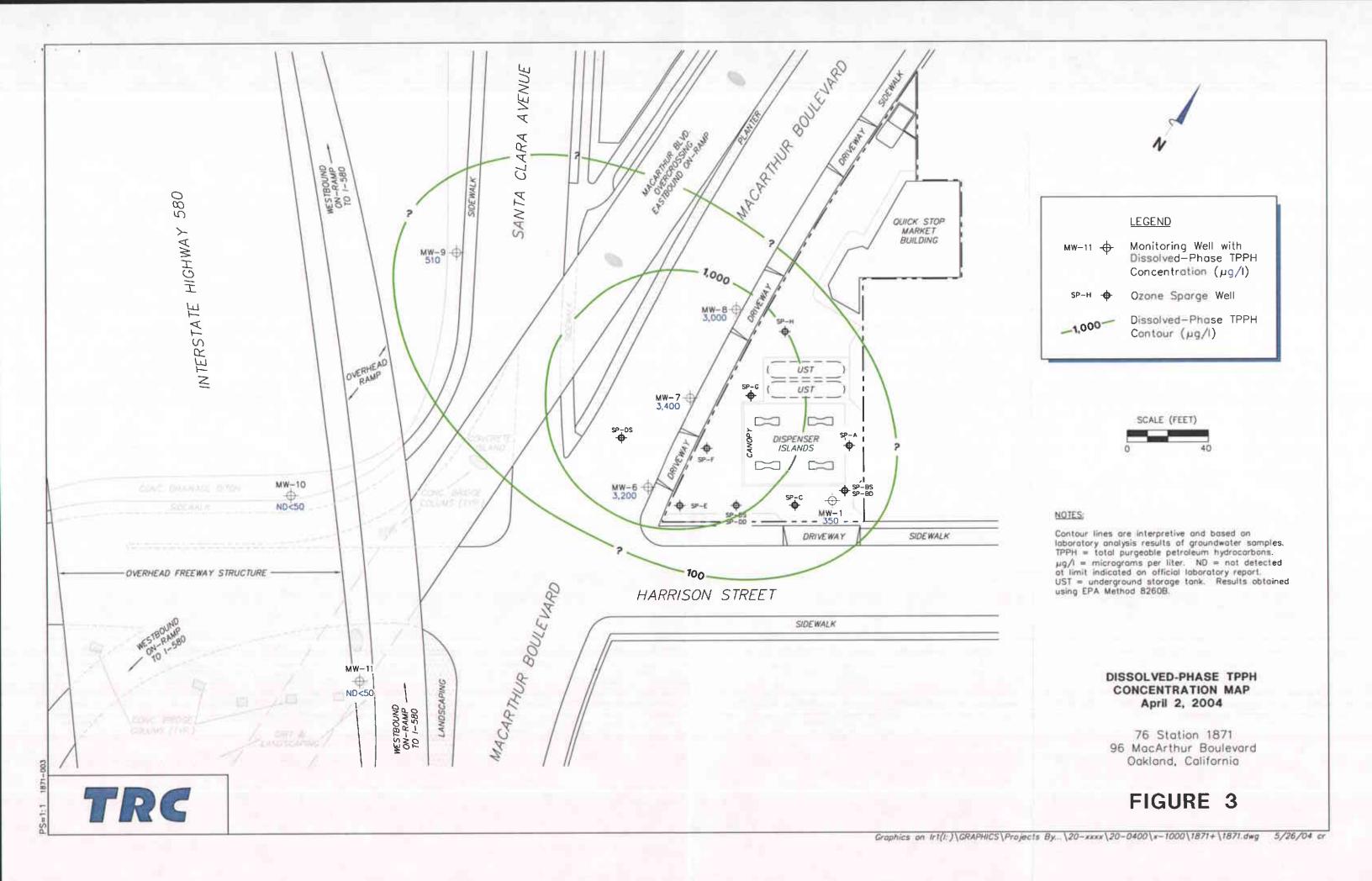


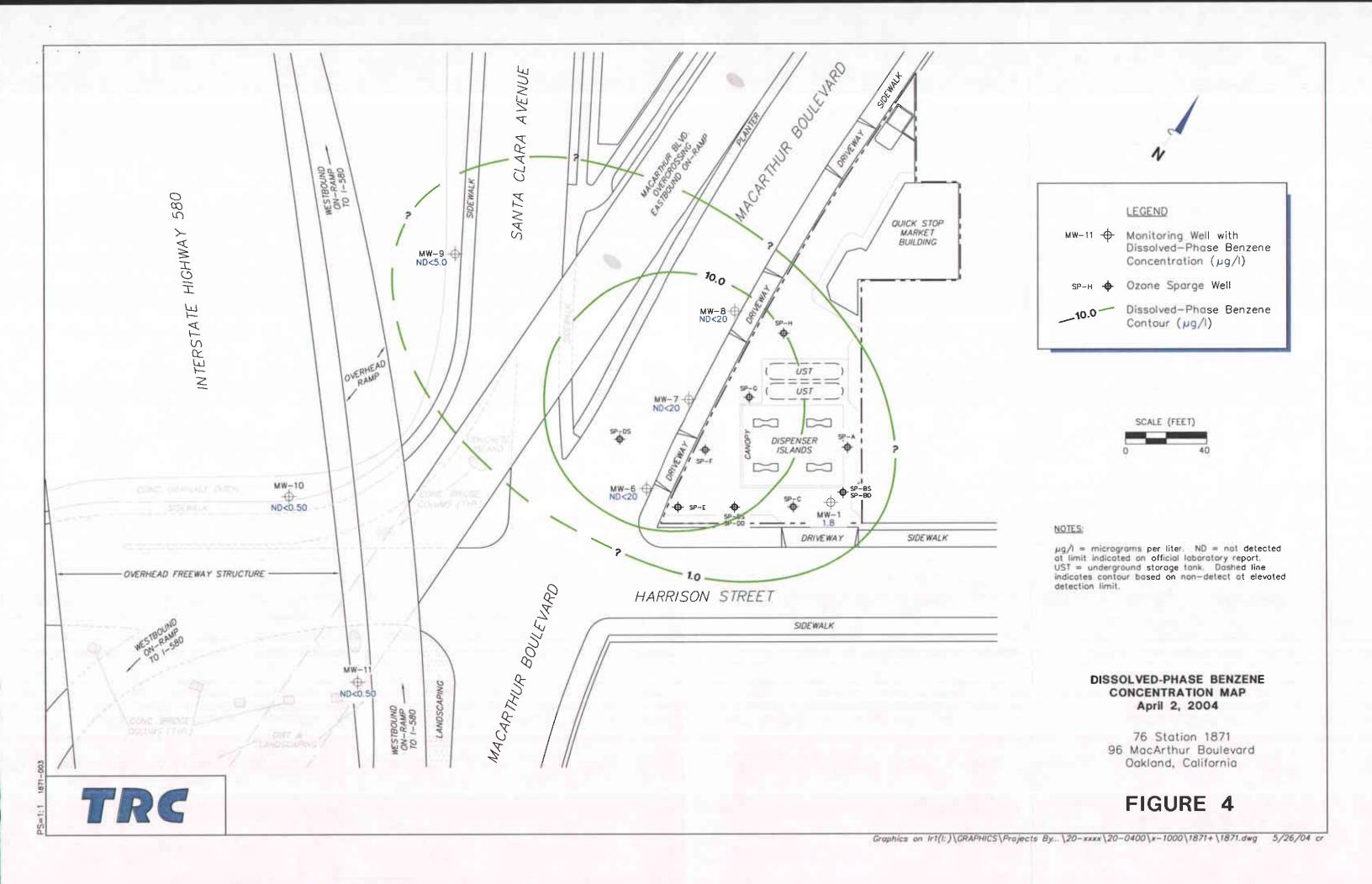
VICINITY MAP

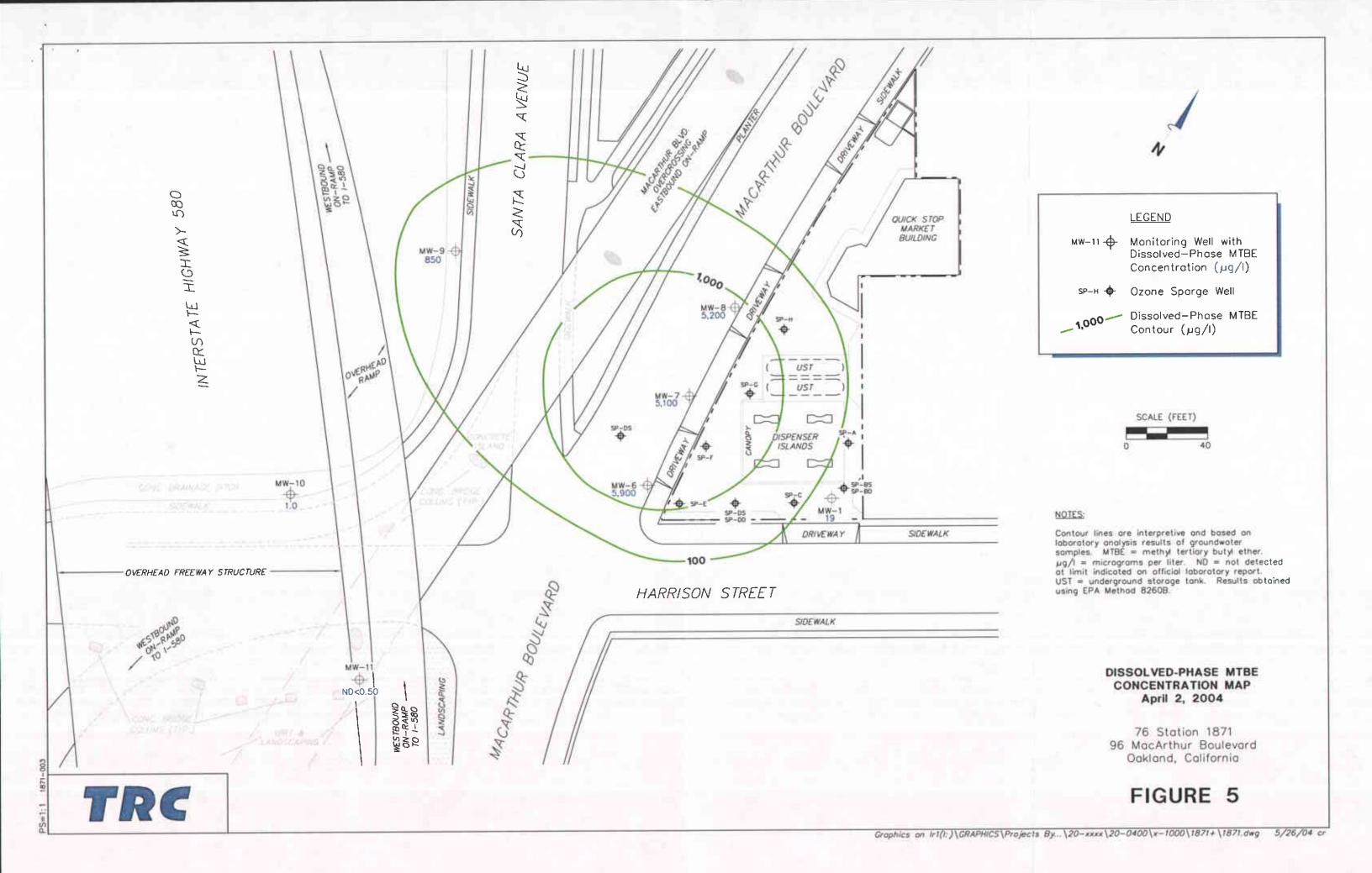
76 Station 1871 96 MacArthur Boulevard Oakland, California

FIGURE 1



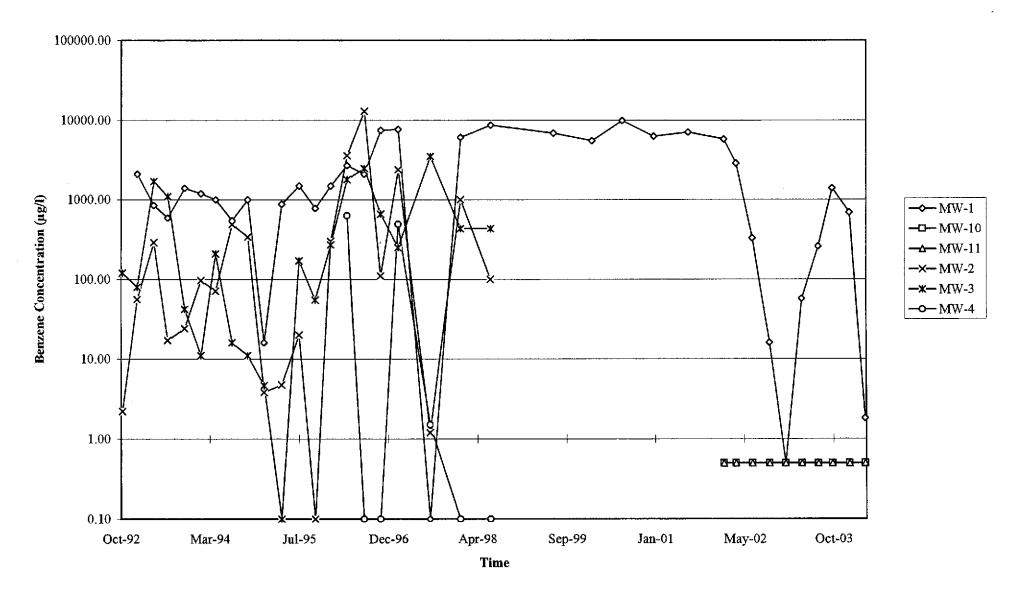




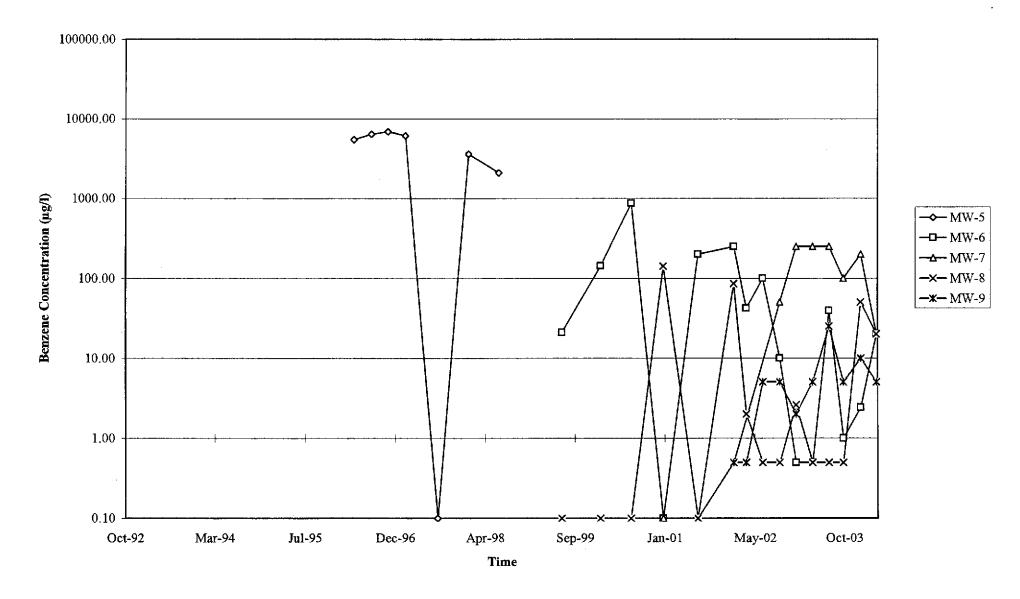


GRAPHS

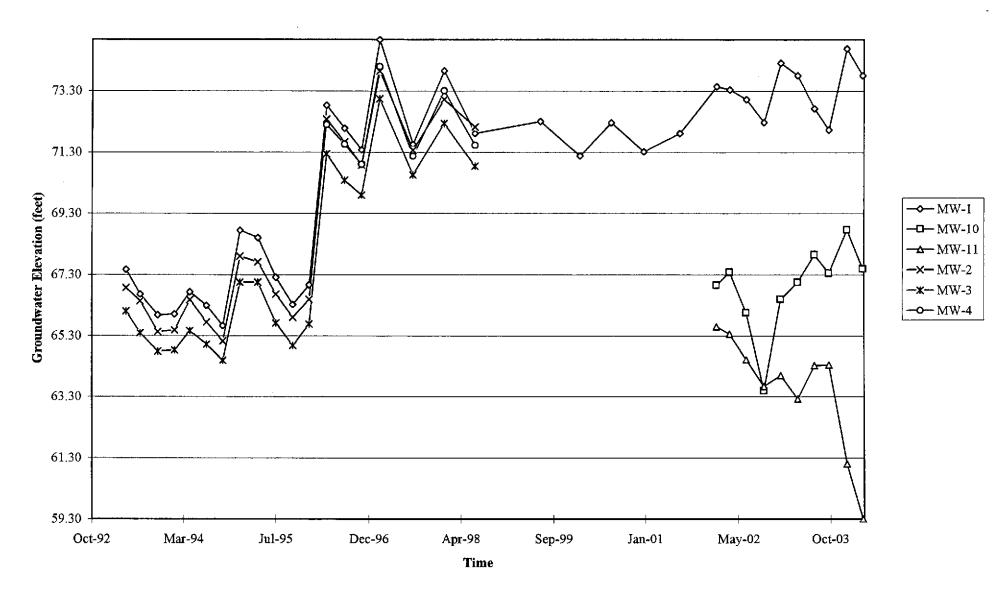
Graph 1
Benzene Concentrations vs. Time
76 Station 1871



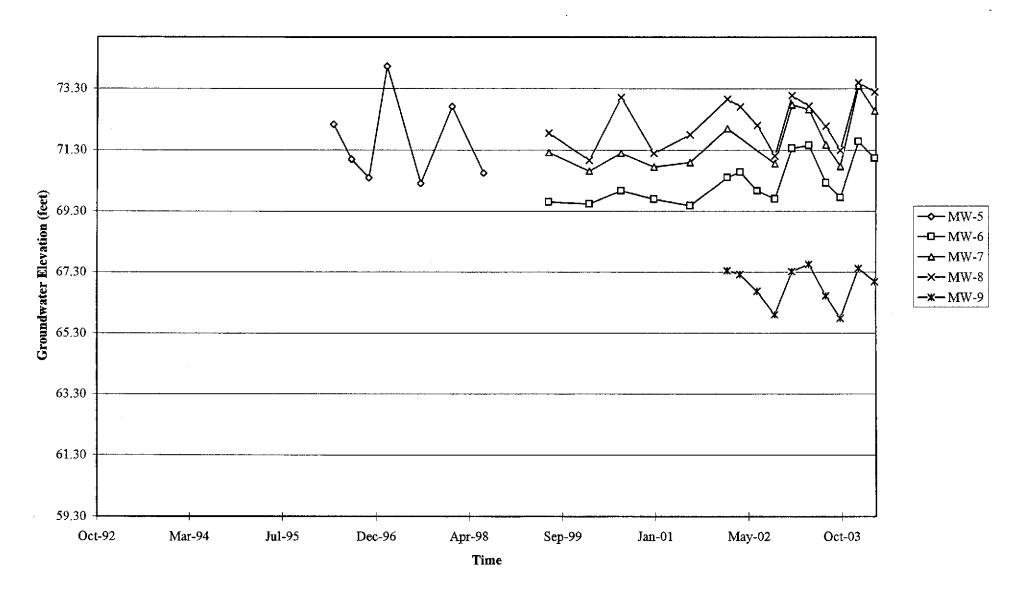
Graph 2
Benzene Concentrations vs. Time
76 Station 1871



Graph 3 Hydrograph 76 Station 1871



Graph 4 Hydrograph 76 Station 1871



GENERAL FIELD PROCEDURES

Groundwater Monitoring and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater monitoring and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

Fluid Level Measurements

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage, or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Wells that are found to contain LPH are not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed. Bailed fluids are placed in a container separate from normal purge water, and properly disposed.

Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurement are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously until they become stable in general accordance with EPA guidelines.

Purge water is generally collected in labeled drums for disposal. Drums may be left on site for disposal by others, or transported to a collection location for eventual transfer to a licensed treatment or recycling facility. In some cases, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

Samples are collected by lowering a new, disposable, ½-inch to 4-inch polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

After filling, all containers are labeled with project number (or site number), well designation, sample date, and the samplers initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

Sequence of Gauging, Purging, and Sampling

The sequence in which monitoring activities are conducted are specified on the TSR. In general, wells are gauged beginning with the least-affected well and ending with the well that has highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected well to the most-affected well.

Decontamination

In order to reduce the possibility of cross-contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated to a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

Exceptions

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, and noted on the site TSR, are documented in field notes on the following pages.

FIELD MONITORING DATA SHEET

Technician: M. Edeste	n Job#Task#: 4/03000	Date: 4-7.04
Site#_/ < 7/	Project Manager Barbara Moed	Page

				Depth	Depth	Product	T	
Well#	Grade	тос	Total Depth	to Water	to Product	Thickness (feet)	Time Sampled	Misc. Well Notes
Mus-1		سما	2381		0	8	1077	411
Nw. 6		i/	24.49		0	0	1120	7"
Mw-7		V	Z4.48	8.09	0	<u>ک</u>	1140	マ^
MW-8		1	2422		0	0	1145	z"
MW-9		<i>i</i> /	19.86	15.08	0		1038	2"
M W-10		V	•	7.49	0	0	1052	Z'/
MW-10		V	30.01	1801	0	σ	1108	z''
				۸,				•
				!				
					,			
					1			
FIELD DATA	COMPL	ETE	ONOC		Çec	N	ELL BOX C	ONDITION SHEETS
WIT CERT	IFICATE		MANIFE	ST	DRUM	VENTORY	TRA	FFIC CONTROL
	WIT OLIVINION TO SHOULD WELL TO SHOULD WE							

Technician: Max Feelo & Feig

Site: /87		F	Project No.:	410 50	0001)ate:	2-04		
Well No.: 🖊	υ- <i> </i>		F	Purge Method:	Dia.					
Depth to Wate				Purge Method:						
Total Depth (fe					Recovered (gallo		9			
Water Column					er (Inches):	· ——				
80% Recharge					(gallons): 7					
	э Бор ик (1 00 4).			7 7 7 5 10 7 5 10 1 1 1 5	(3mm) - 7		,			
Time	Time	Depth	Volume	Conduc-	Temperature		ORP	0.0		
Start	Stop	To Water (feet)	Purged (gallons)	tivity (uS/cm)	(F,C)	рН	-Turbidity-	D.O.		
0730		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	7	-10		7/3	36	13.42		
0730	\ =\h	(3°)		-// 8		1.12	7,0	73,7		
				702 M	· 1			4 5		
-	· · · · · · · · · · · · · · · · · · ·		14	702	14.3	7,21	4//	12.67		
	0747		7/	709	15.2	7.22	34	11.33		
Stat	ic at Time San	npled		tal Gallons Pur			Time Sample	ed		
23.				21			7.7			
L1 = //	d. d	over c	+cove	nat	guying	ter Z	1/2 hus	3 Lus		
Well No.: _	nw-6	<u>.</u>		Purge Method	Dia					
Depth to Wat	er (feet): <u> </u>	63	_	Depth to Prod	luct (feet):	0				
Total Depth (feet): <u>て ゲ.</u>	49		LPH & Water	Recovered (gal	llons):	0			
Water Colum	n (feet):	5.86		Casing Diame	eter (Inches):	2 4	-			
80% Recharç	ge Depth (feet)	11.80		1 Well Volume		3				
Time	Time	Depth	Volume	Conduc-	Temperature		CR.P.			
Start	Stop	To Water	Purged	tivity	(5.6)	pН	Lurbidity	D.O.		
A - 6 .		(feet)	(gallons)	(uS/cm)	(F,C)	ļ		i		
0754	 	- 	3	708	13.2	7.40	9	17.72		
						<u> </u>	<u> </u>			
			6	7.41	13.0	7.56	70	13.46		
	0806		9	747	17.5	7.46	23	17.63		
	itic at Time Sa	mpled	T	otal Gallons Pi			Time Sam			
7.3	6			7			70			

Comments:

Technician: May Edes Fein

Site: 1870	,	F	Project No.:	40050	00/	Date: 4-2-04				
Well No.: 1	14-7			Purge Method	1)- 4					
		09		Depth to Product (feet):						
	eet): <u> </u>			LPH & Water Recovered (gallons):						
•	(feet): 16				eter (Inches):			-		
	e Depth (feet):				e (gallons):					
Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature	рΗ	CRP Turbidity	D.O.		
0814			3	788	15.3	7.78	27	11.32		
·			E	762	14.7	7.31	7 7	12.03		
	0876		9	792	14 3	7.31	10	17 (/)		
Ctol	ic at Time San	anled		otal Gallons Po	 		Time Sami	/7.41		
Stat	ic at Time Dan	ipieu į		9	ngeu	177	40			
Well No.: _/					d: <u>Diq</u>					
	ter (feet):		_		duct (feet):					
		77	<u>.</u> .		r Recovered (ga					
Water Colum	nn (feet):	<u>5.71</u>	-	Casing Dian	neter (Inches):	7"				
80% Rechar	ge Depth (feet	11.66			ne (gallons):	3				
Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature	рН	OR F Surbidity	D.O.		
0832			3	598		7.75	-10	12.82		
			6	609	18.7	7.018	3 3	13,47		
							. 10	177. 777		
	0845		1 9	GII	18.3	7.63	Z. /6 Time Sar	<u>/3:37</u>		
	atic at Time Sa	ипріец	1	Total Gallons I	-urged	1.	T time Sai	1145		
7.3						7	14 6			

Technician: Max Eclasteda

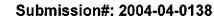
Site: /87/

Project No.: 4/03000/ Date: 4-7-04

Well No.: <i>N</i>	1W-7		İ	Purge Method:	hand	bail				
Depth to Water	(feet):	5.08	ļ	Depth to Produ	ıct (feet):	0				
Total Depth (fee					Recovered (gallo		2	•		
Water Column (;	Casing Diame	ter (Inches):	77 "				
80% Recharge				1 Well Volume	(gallons)					
Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature	рН	pH Inabidity D.O.			
0705			1	647	14.1	7.72	12	13.21		
-		·	`ح	702	14.1	7.57	15	14.00		
	09/0		3		14.5	7.54	32	16.37		
Static /2.0	at Time Sam	pled	To	otal Gallons Pu	rged		Time Sampl のるを	ed		
		l		3			2 3 5			
Well No.: // Depth to Water Total Depth (fer Water Column 80% Recharge	r (feet): <u>7.</u> et): <u>/</u>	89	- - -	Depth to Prod LPH & Water Casing Diam	d: Hand duct (feet): Recovered (ga eter (Inches): ne (gallons):	O ilons): <u>(</u> Z″	<u></u>			
r				1		·	00			
Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature	рН	Aurbidity	D.O.		
0918			7	637	16.0	7.38	2/2	12.02		
			4	601	16.4	7.43	45	11.88		
	0924		6	582	16.9	7.68	·	11.91		
	c at Time Sa	mpled	1 1	Fotal Gallons P	urged	1	Time Sam			
7. 8)		<u>,</u>	<u> </u>						
Comments:								1		

Technician: May Eclostera

Purge Method: Hand bail	17.65
Depth to Water (feet):	19.08
Total Depth (feet): 30.6	19.08
Water Column (feet):/Z	19.08
Time Start Time Stop Depth To Water Purged Itivity Conductivity Temperature Itivity pH Turbidity 097 48 2 1369 17.1 8.9z -1 4 1299 17.1 8.18 98 1002 6 1239 17.6 8.13 108 Static at Time Sampled Total Gallons Purged Time Sampled 18.94 6 108	19.08
Start Stop To Water (feet) Purged (gallons) tivity (uS/cm) pH Turbidity OF 48 2 1369 17.1 8.92 -1 4 1299 17.1 8.18 98 1002 6 1739 17.6 8.13 108 Static at Time Sampled Total Gallons Purged Time Sampled 18.94 6 1/08	19.08
1369 17.1 8.9z -1	13.65
1002 6 17.39 17.6 8.13 108 Static at Time Sampled Total Gallons Purged Time Sample 18.94 6 1/08	11,94
1002 6 17.39 17.6 8.13 108 Static at Time Sampled Total Gallons Purged Time Sample 18.94 6 1 08	
Static at Time Sampled Total Gallons Purged Time Sample 18.94 6 // 08	
Comments:	ì
Well No.: Purge Method: Depth to Water (feet): Depth to Product (feet): Total Depth (feet): LPH & Water Recovered (gallons): Water Column (feet): Casing Diameter (Inches): 80% Recharge Depth (feet): 1 Well Volume (gallons):	
Time Time Depth Volume Conduc-Temperature Start Stop To Water Purged tivity pH Turbidity (feet) (gallons) (uS/cm) (F,C)	D.O.
Static at Time Sampled Total Gallons Purged Time Samp	pled
Comments:	





TRC Alton Geoscience

April 16, 2004

21 Technology Drive Irvine, CA 92718

Attn.:

Anju Farfan

Project#: 41050001FA20

Project:

Conoco Phillips # 1871

Site:

96 MacArthur, Oakland

Attached is our report for your samples received on 04/05/2004 16:34 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 05/20/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

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

Dimple Sharma Project Manager





TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

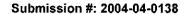
Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab#	
MW-1	04/02/2004 10:27	Water	1	
MW-6	04/02/2004 11:20	Water	2	
MW-7	04/02/2004 11:40	Water	3	
MW-8	04/02/2004 11:45	Water	4	
MW-9	04/02/2004 10:38	Water	5	
MVV-10	04/02/2004 10:52	Water	6	
MVV-11	04/02/2004 11:08	Water	7	





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s):

5030B

Test(s):

8260FAB

Sample ID: MW-1

Lab ID:

2004-04-0138 - 1

Sampled: 04/02/2004 10:27 Extracted:

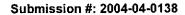
4/13/2004 15:11

Matrix:

Water

QC Batch#: 2004/04/13-1C.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	350	50	ug/L	1.00	04/13/2004 15:11	
Benzene	1.8	0.50	ug/L	1.00	04/13/2004 15:11	
Toluene	ND	0.50	ug/L	1.00	04/13/2004 15:11	
Ethylbenzene	6.2	0.50	ug/L	1.00	04/13/2004 15:11	
Total xylenes	30	1.0	ug/L	1.00	04/13/2004 15:11	
Methyl tert-butyl ether (MTBE)	19	0.50	ug/L	1.00	04/13/2004 15:11	
Ethanol	ND	50	ug/L	1.00	04/13/2004 15:11	
Surrogate(s)						
Toluene-d8	89.1	88-110	%	1.00	04/13/2004 15:11	
1,2-Dichloroethane-d4	98.3	76-114	%	1.00	04/13/2004 15:11	





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s):

5030B

Test(s):

8260FAB

Sample ID: MW-6

Lab ID:

2004-04-0138 - 2

Sampled: 04/02/2004 11:20

Extracted:

4/14/2004 15:53

Matrix:

Water

QC Batch#: 2004/04/14-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3200	2000	ug/L	40.00	04/14/2004 15:53	g
Benzene	ND	20	ug/L	40.00	04/14/2004 15:53	
Toluene	ND	20	ug/L	40.00	04/14/2004 15:53	
Ethylbenzene	ND	20	ug/L	40.00	04/14/2004 15:53	
Total xylenes	ND	40	ug/L	40.00	04/14/2004 15:53	
Methyl tert-butyl ether (MTBE)	5900	20	ug/L	40.00	04/14/2004 15:53	
Ethanol	ND	2000	ug/L	40.00	04/14/2004 15:53	
Surrogate(s)						
Toluene-d8	95.1	88-110	%	40.00	04/14/2004 15:53	
1,2-Dichloroethane-d4	102.1	76-114	%	40.00	04/14/2004 15:53	



Submission #: 2004-04-0138

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s):

5030B

Test(s):

8260FAB

Sample ID: MW-7

Lab ID:

2004-04-0138 - 3

Sampled: 04/02/2004 11:40

Extracted:

4/13/2004 20:02

Matrix:

Water

0.5 1.1"

QC Batch#: 2004/04/13-2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3400	2000	ug/L	40.00	04/13/2004 20:02	g
Benzene	ND	20	ug/L	40.00	04/13/2004 20:02	
Toluene	ND	20	ug/L	40.00	04/13/2004 20:02	
Ethylbenzene	ND	20	ug/L	40.00	04/13/2004 20:02	
Total xylenes	ND	40	ug/L	40.00	04/13/2004 20:02	
Methyl tert-butyl ether (MTBE)	5100	20	ug/L	40.00	04/13/2004 20:02	
Ethanol	ND	2000	ug/L	40.00	04/13/2004 20:02	
Surrogate(s)	ŀ					
Toluene-d8	92.9	88-110	%	40.00	04/13/2004 20:02	
1,2-Dichloroethane-d4	113.0	76-114	%	40.00	04/13/2004 20:02	





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s):

5030B

Test(s):

8260FAB

Sample ID: MW-8

Lab ID:

2004-04-0138 - 4

Sampled: 04/02/2004 11:45

Extracted:

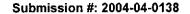
4/13/2004 20:24

Matrix:

Water

QC Batch#: 2004/04/13-2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	3000	2000	ug/L	40.00	04/13/2004 20:24	g
Benzene	ND	20	ug/L	40.00	04/13/2004 20:24	
Toluene	ND	20	ug/L	40.00	04/13/2004 20:24	
Ethylbenzene	ND	20	ug/L	40.00	04/13/2004 20:24	
Total xylenes	ND	40	ug/L	40.00	04/13/2004 20:24	
Methyl tert-butyl ether (MTBE)	5200	20	ug/L	40.00	04/13/2004 20:24	
Ethanol	ND	2000	ug/L	40.00	04/13/2004 20:24	
Surrogate(s)	ļ					
Toluene-d8	92.9	88-110	%	40.00	04/13/2004 20:24	
1,2-Dichloroethane-d4	108.3	76-114	%	40.00	04/13/2004 20:24	





TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s): 5030B Test(s):

8260FAB

Sample ID: MW-9

Lab ID:

2004-04-0138 - 5

Sampled: 04/02/2004 10:38

Extracted:

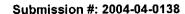
4/10/2004 17:50

Matrix:

Water

QC Batch#: 2004/04/10-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	510	500	ug/L	10.00	04/10/2004 17:50	g
Benzene	ND	5.0	ug/L	10.00	04/10/2004 17:50	
Toluene	ND	5.0	ug/L	10.00	04/10/2004 17:50	
Ethylbenzene	NĐ	5.0	ug/L	10.00	04/10/2004 17:50	
Total xylenes	ND	10	ug/L	10.00	04/10/2004 17:50	
Methyl tert-butyl ether (MTBE)	850	5.0	ug/L	10.00	04/10/2004 17:50	
Ethanol	ND	500	ug/L	10.00	04/10/2004 17:50	
Surrogate(s)						
Toluene-d8	94.0	88-110	%	10.00	04/10/2004 17:50	
1,2-Dichloroethane-d4	102.1	76-114	%	10.00	04/10/2004 17:50	





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s):

5030B

Test(s):

8260FAB

Sample ID: MW-10

Lab ID:

2004-04-0138 - 6

Sampled: 04/02/2004 10:52

Extracted:

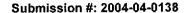
4/10/2004 18:12

Matrix:

Water

QC Batch#: 2004/04/10-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/10/2004 18:12	
Benzene	ND	0.50	ug/L	1.00	04/10/2004 18:12	
Toluene	ND	0.50	ug/L	1.00	04/10/2004 18:12	
Ethylbenzene	ND	0.50	ug/L	1.00	04/10/2004 18:12	
Total xylenes	ND	1.0	ug/L	1.00	04/10/2004 18:12	
Methyl tert-butyl ether (MTBE)	1.0	0.50	ug/L	1.00	04/10/2004 18:12	
Ethanol	ND	50	ug/L	1.00	04/10/2004 18:12	
Surrogate(s)						
Toluene-d8	92.4	88-110	%	1.00	04/10/2004 18:12	
1,2-Dichloroethane-d4	99.2	76-114	%	1.00	04/10/2004 18:12	





TRC Alton Geoscience

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21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Prep(s):

Matrix:

5030B

Test(s):

8260FAB

Sample ID: MW-11

Lab ID:

2004-04-0138 - 7

Sampled:

04/02/2004 11:08

Extracted:

4/10/2004 18:34

Water

QC Batch#: 2004/04/10-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/10/2004 18:34	
Benzene	ND	0.50	ug/L	1.00	04/10/2004 18:34	
Toluene	ND	0.50	ug/L	1.00	04/10/2004 18:34	
Ethylbenzene	ND	0.50	ug/L	1.00	04/10/2004 18:34	
Total xylenes	ND	1.0	ug/L	1.00	04/10/2004 18:34	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/10/2004 18:34	
Ethanol	ND	50	ug/L	1.00	04/10/2004 18:34	
Surrogate(s)						
Toluene-d8	94.7	88-110	%	1.00	04/10/2004 18:34	
1,2-Dichloroethane-d4	102.7	76-114	%	1.00	04/10/2004 18:34	





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Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

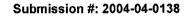
Prep(s): 5030B Method Blank

MB: 2004/04/10-1B.64-007

Test(s): 8260FAB
Water QC Batch # 2004/04/10-1B.64

Date Extracted: 04/10/2004 10:07

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/10/2004 10:07	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/10/2004 10:07	
Benzene	ND	0.5	ug/L	04/10/2004 10:07	
Toluene	ND	0.5	ug/L	04/10/2004 10:07	
Ethylbenzene	ND	0.5	ug/L	04/10/2004 10:07	ŀ
Total xylenes	ND	1.0	i ug/L	04/10/2004 10:07	
Ethanol	ND	50	ug/L	04/10/2004 10:07	}
Surrogates(s)					
1,2-Dichloroethane-d4	93.8	76-114	%	04/10/2004 10:07	
Toluene-d8	93.2	88-110	%	04/10/2004 10:07	<u> </u>





TRC Alton Geoscience

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Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B Method Blank

Water

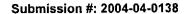
Test(s): 8260FAB

QC Batch # 2004/04/13-1C.64

MB: 2004/04/13-1C.64-045

Date Extracted: 04/13/2004 08:45

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/13/2004 08:45	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/13/2004 08:45	
Benzene	ND	0.5	ug/L	04/13/2004 08:45	
Toluene	ND	0.5	ug/L	04/13/2004 08:45	
Ethylbenzene	ND	0.5	ug/L	04/13/2004 08:45	
Total xylenes	ND	1.0	ug/L	04/13/2004 08:45	
Ethanol	ND	50	ug/L	04/13/2004 08:45	
Surrogates(s)		İ			
1,2-Dichloroethane-d4	94.8	76-114	%	04/13/2004 08:45	
Toluene-d8	91.4	88-110	%	04/13/2004 08:45	





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Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Test(s): 8260FAB Prep(s): 5030B QC Batch # 2004/04/13-2A.64 **Method Blank** Water MB: 2004/04/13-2A.64-005

Date Extracted: 04/13/2004 19:05

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/13/2004 19:05	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/∟	04/13/2004 19:05	
Benzene	ND	0.5	ug/L	04/13/2004 19:05	
Toluene	ND	0.5	ug/L	04/13/2004 19:05	
Ethylbenzene	ND	0.5	ug/L	04/13/2004 19:05	
Total xylenes	ND	1.0	ug/L	04/13/2004 19:05	
Ethanol	ND	50	ug/L	04/13/2004 19:05	
Surrogates(s)					
1,2-Dichloroethane-d4	99.6	76-114	%	04/13/2004 19:05	
Toluene-d8	96.4	88-110	%	04/13/2004 19:05	





TRC Alton Geoscience

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Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B Method Blank

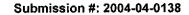
Water

Test(s): 8260FAB QC Batch # 2004/04/14-1D.64

Date Extracted: 04/14/2004 09:26

MB: 2004/04/14-1D.64-026

Conc.	RL	Unit	Analyzed	Flag
ND	50	ug/L	04/14/2004 09:26	
ND	0.5	ug/L	04/14/2004 09:26	
ND	0.5	ug/L	04/14/2004 09:26	
ND	0.5	ug/L	04/14/2004 09:26	
ND	0.5	ug/L	04/14/2004 09:26	
ND	1.0	ug/L	04/14/2004 09:26	
ND	50	ug/L	04/14/2004 09:26	
97.2	76-114	%	04/14/2004 09:26	
97.4	88-110	%	04/14/2004 09:26	
	ND ND ND ND ND ND ND ND	ND 50 ND 0.5 ND 0.5 ND 0.5 ND 0.5 ND 1.0 ND 50 97.2 76-114	ND 50 ug/L ND 0.5 ug/L ND 0.5 ug/L ND 0.5 ug/L ND 0.5 ug/L ND 1.0 ug/L ND 50 ug/L 97.2 76-114 %	ND 50 ug/L 04/14/2004 09:26 ND 0.5 ug/L 04/14/2004 09:26 ND 1.0 ug/L 04/14/2004 09:26 ND 50 ug/L 04/14/2004 09:26 97.2 76-114 % 04/14/2004 09:26





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B Test(s): 8260FAB

Laboratory Control Spike

2004/04/10-1B.64-022

Water

QC Batch # 2004/04/10-1B.64

LCS LCSD 2004/04/10-1B.64-045 Extracted: 04/10/2004 Extracted: 04/10/2004 Analyzed: 04/10/2004 09:22 Analyzed: 04/10/2004 09:45

Compound	Conc.	ug/L	Exp.Conc.	Recov	/ery %	RPD	Ctrl.Lin	nits %	Fla	igs
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE) Benzene	24.2	23.4 24.2	25 25	92.8 96.8	93.6 96.8	0.9	65-165 69-129	20 20		
Toluene Surrogates(s)	24.8	24.3	25	99.2	97.2	2.0	70-130	20		
1,2-Dichloroethane-d4 Toluene-d8	459 473	445 468	500 500	91.8 94.6	89.0 93.6		76-114 88-110			



Submission #: 2004-04-0138

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2004/04/13-1C.64

LCS

2004/04/13-1C.64-001

Extracted: 04/13/2004

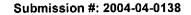
Analyzed: 04/13/2004 08:01

LCSD 2004/04/13-1C.64-023

Extracted: 04/13/2004

Analyzed: 04/13/2004 08:23

Compound	Conc.	ug/L	Exp.Conc.	Recov	ery %	RPD	Ctrl.Lin	nits %	Fla	igs
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	22.5	22.4	25	90.0	89.6	0.4	65-165	20		
Benzene	23.6	22.2	25	94.4	88.8	6.1	69-129	20		
Toluene	23.3	22.2	25	93.2	88.8	4.8	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	445	461	500	89.0	92.2		76-114	1		
Toluene-d8	460	452	500	92.0	90.4		88-110			





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21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B

1,2-Dichloroethane-d4

Toluene-d8

LCS

LCSD

Test(s): 8260FAB

Laboratory Control Spike

2004/04/13-2A.64-020

Water

QC Batch # 2004/04/13-2A.64

2004/04/13-2A.64-043

481

483

Extracted: 04/13/2004 Extracted: 04/13/2004

96.2

96.6

94.6

96.8

Analyzed: 04/13/2004 18:20 Analyzed: 04/13/2004 18:43

76-114

88-110

Ctrl.Limits % Conc. ug/L Exp.Conc. Recovery % RPD Flags Compound LCS LCSD % LCS LCSD LCS LCSD Rec. **RPD** 65-165 Methyl tert-butyl ether (MTBE) 23.5 22.8 25 94.0 91.2 3.0 20 Benzene 25.2 102.0 100.8 1.2 69-129 20 25 25.4 70-130 Toluene 25.4 24.3 25 101.6 97.2 4.4 20 Surrogates(s)

500

500

473

484



Submission #: 2004-04-0138

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B

LCS

Test(s): 8260FAB

Laboratory Control Spike

2004/04/14-1D.64-041

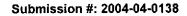
Water

QC Batch # 2004/04/14-1D.64

LCSD 2004/04/14-1D.64-004

Extracted: 04/14/2004 Extracted: 04/14/2004 Analyzed: 04/14/2004 08:41 Analyzed: 04/14/2004 09:04

Compound	Conc.	ug/L	Exp.Conc.	Reco	very %	RPD	Ctrl.Lim	nits %	Fla	gs
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE) Benzene Toluene	22.2 24.0 24.0	22.2 24.2 23.9	25 25 25	88.8 96.0 96.0	88.8 96.8 95.6	0.0 0.8 0.4	65-165 69-129 70-130	20 20 20		
Surrogates(s) 1,2-Dichloroethane-d4 Toluene-d8	443 480	453 485	500 500	88.6 96.0	90.6 97.0		76-114 88-110			





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips # 1871

Received: 04/05/2004 16:34

Site: 96 MacArthur, Oakland

Legend and Notes

Analysis Flag

0

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

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.



STL San Francisco

Sample Receipt Checklist

Submission #:2004- <u>04</u> - <u>0138</u>	
Checklist completed by: (initials) NK Date: 04 /06 /04	
Courier name: STL San Francisco 🛘 Client	Not .
Custody seals intact on shipping container/samples	Not YesNoPresent
Chain of custody present?	Yes No
Chain of custody signed when relinquished and received?	Yes No
Chain of custody agrees with sample labels?	YesNo
Samples in proper container/bottle?	YesNo
Sample containers intact?	YesNo
Sufficient sample volume for indicated test?	YesNo
All samples received within holding time?	YesNo
Container/Temp Blank temperature in compliance (4° C ± 2)?	Temp:2.0°C YesNo
	Ice Present YesNo
Water - VOA vials have zero headspace?	No VOA vials submittedYesiNo
(if bubble is present, refer to approximate bubble size and itemize in comments Water - pH acceptable upon receipt? ☐ Yes ☐ No ☐ pH adjusted— Preservative used: ☐ HNO₃ ☐ HCI ☐ H₂SO₄ ☐ NaOH ☐ For any item check-listed "No", provided detail of discrepancy in comme Comments:	ZnOAcLot #(s)
	ad disaranancy/iss\1
Project Management [Routing for instruction of indicate	ed discrepancy(les)j
Project Manager: (initials) Date:/04	
Clienf contacted: ☐ Yes ☐ No	
Summary of discussion:	
Corrective Action (per PM/Client):	

HWY-04-0138 ConocoPhillips Chain Of Custody Record 84520 ConocoPhillips Site Manager: ConocoPhillips Work Order Number 1220 Quarry Lane INVOICE REMITTANCE ADDRESS: CONOCOPHILLIPS Attn: Dee Hutchinson Pleasanton, CA 94566 ConocoPhillips Cost Object 3611 South Harbor, Suite 200 (925) 484-1919 (925) 484-1096 fax Santa Ana, CA. 92704 SAMPLING COMPANY: CONOCOPHILLIPS SITE NUMBER GLOBAL ID NO .: TRC TOGOGO 101493 ADDRESS: 21 Technology Drive, Irvine CA 92618 96 Mac Arthur, Ockland PROJECT CONTACT (Hardcopy or PDF Report to); Anju Farfan LAB USE ONLY TELEPHONE: Peter Thomson, TRC 949-341-7408 949-341-7440 afarfan@trcsolutions.com 949-753-0111 pthomson@trcsolutions.com SAMPLER NAME(S) (Print): CONSULTANT PROJECT NUMBER REQUESTED ANALYSES 41050001/FA20 MARTECESTES,
TURNAROUND TIME (CALENDAR DAYS): 8260B - TPHg / BTEX / 8 Oxygenates 14 DAYS 7 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS 8015M / 8021B - TPHg/BTEX/MtBE DTotal DSTLC DTCLP FIELD NOTES: SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED D - TPHd Extractable 8260B - TPH9/BTEX/MtBE Container/Preservative 8270C - Semi-Volatiles or PID Readings or Laboratory Notes * Field Point name only required if different from Sample ID Sample Identification/Field Point TEMPERATURE ON RECEIPT C° MATRIX CONT. Name* DATE TIME 3 1120 1140 1038 1108 9/19/03 Revision

STATEMENTS

Purge Water Transport and Disposal

Non-hazardous groundwater produced during purging and sampling was accumulated at TRC's groundwater monitoring facility at Concord, California, for transportation by Onyx Transportation, Inc., to the ConocoPhillips Refinery at Rodeo, California. Disposal at the Rodeo facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures – Water Quality and Compliance", as revised on February 7, 2003. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R-149, which is on file at TRC's Concord Office. Purge water suspected of containing potentially hazardous material, such as liquid-phase hydrocarbons, was accumulated separately in a drum for transportation and disposal by Filter Recycling, Inc.

Limitations

The fluid level monitoring and groundwater sampling activities summarized in this report have been performed under the responsible charge of a California Registered Geologist or Registered Civil Engineer and have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.