RO 455

TRC

Customer-Focused Solutions

July 30, 2004 TRC Project No. 42016101

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

RE: Quarterly Status Report - Second 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 Second Quarter 2004 Quarterly Status Report for the subject site, shown on attached Figure 3 through 5.

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: John' s Excavating of Santa Rosa, California removed all underground and aboveground equipment and facilities. 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.

1590 Solano Way, Suite A • Concord, California 94520
Telephone 925-688-1200 • Fax 925-688-0388

(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 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 ¼mile 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 five of seven wells, with a maximum concentration of 3,400 micrograms per liter (µg/l) in offsite well MW-7.

Benzene was detected in one of seven wells, with a maximum concentration of 1.8 µg/l in onsite well MW-1.

Methyl tertiary butyl ether (MTBE) was detected in six of seven wells, with a maximum concentration of 5,900 µg/l in offsite well MW-6.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring well MW-11 was non-detect for benzene, TPPH, and MTBE. Perimeter downgradient monitoring well MW-10 was non-detect for benzene and TPPH, and had low levels of MTBE. Perimeter downgradient monitoring well MW-9 contained 850 µg/l MTBE and 510 µg/l TPPH and was non-detect for benzene.

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 112 pounds of ozone have been injected.

Second 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

April 2, 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.

April-June 2004: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. Approximately 9.36 pounds of ozone was injected during the second 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 and MW-7 to aid in evaluation of the ozone sparging system.

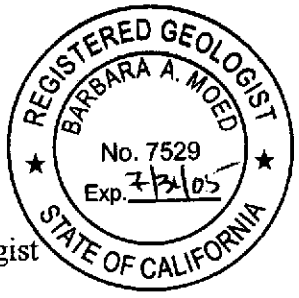
If you have any questions regarding this report, please call Roger Batra at (925) 688-2466.

Sincerely,

TRC

Roger Batra
Senior Project Manager

Barbara Moed, R.G.
Senior Project Geologist



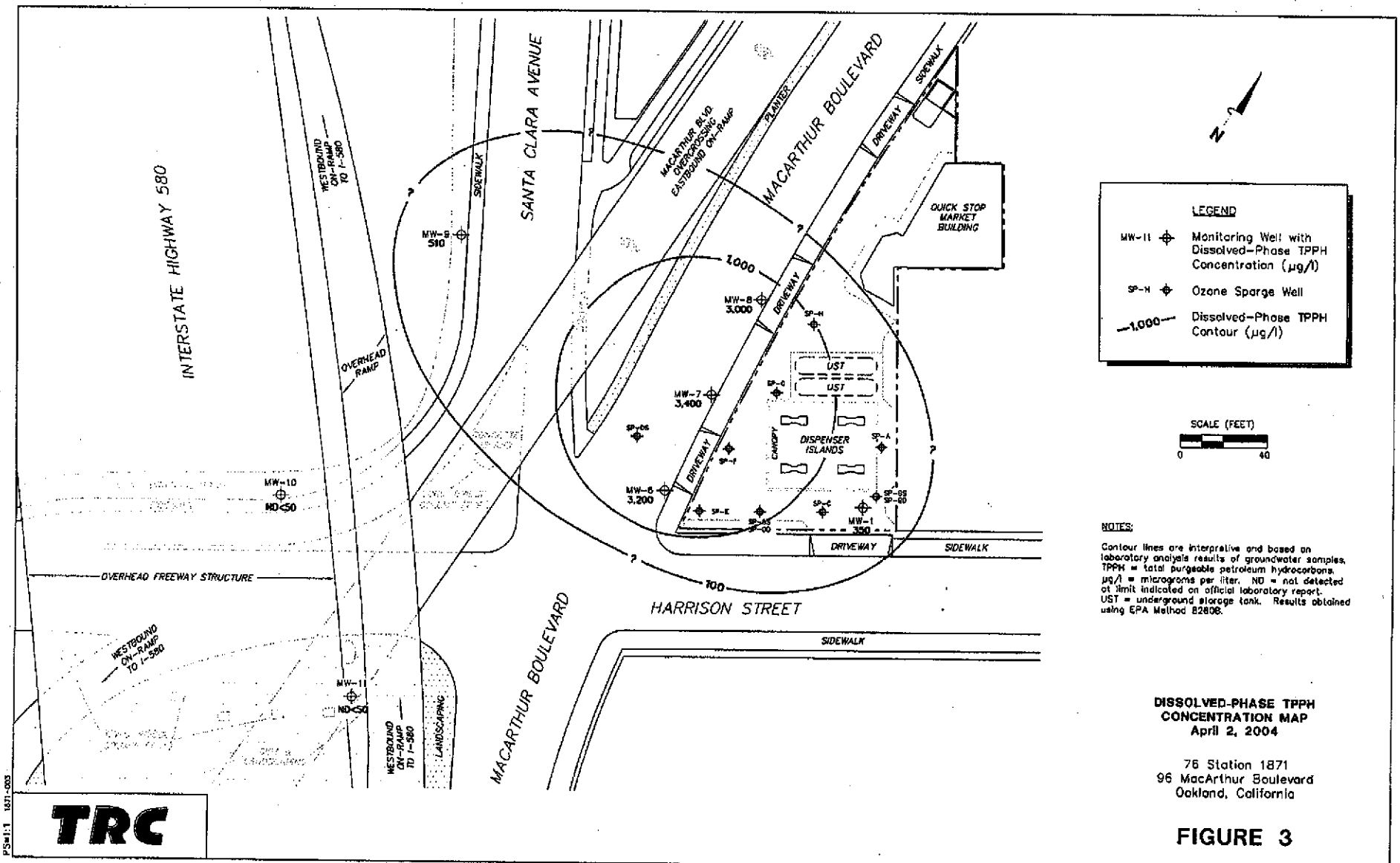
Attachments:

Figure 3 – Dissolved-Phase TPPH Concentration Map, April 2, 2004, from Second Quarter 2004 Fluid Level Monitoring and Sampling Report, dated May 25, 2004 by TRC.

Figure 4 – Dissolved-Phase Benzene Concentration Map, April 2, 2004, from Second Quarter 2004 Fluid Level Monitoring and Sampling Report, dated May 25, 2004 by TRC.

Figure 5 – Dissolved-Phase MTBE Concentration Map, April 2, 2004, from Second Quarter 2004 Fluid Level Monitoring and Sampling Report, dated May 25, 2004 by TRC.

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



NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. TPPH = total purgeable petroleum hydrocarbons. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.

DISSOLVED-PHASE TPPH CONCENTRATION MAP
April 2, 2004

76 Station 1871
96 MacArthur Boulevard
Oakland, California

FIGURE 3

TRC

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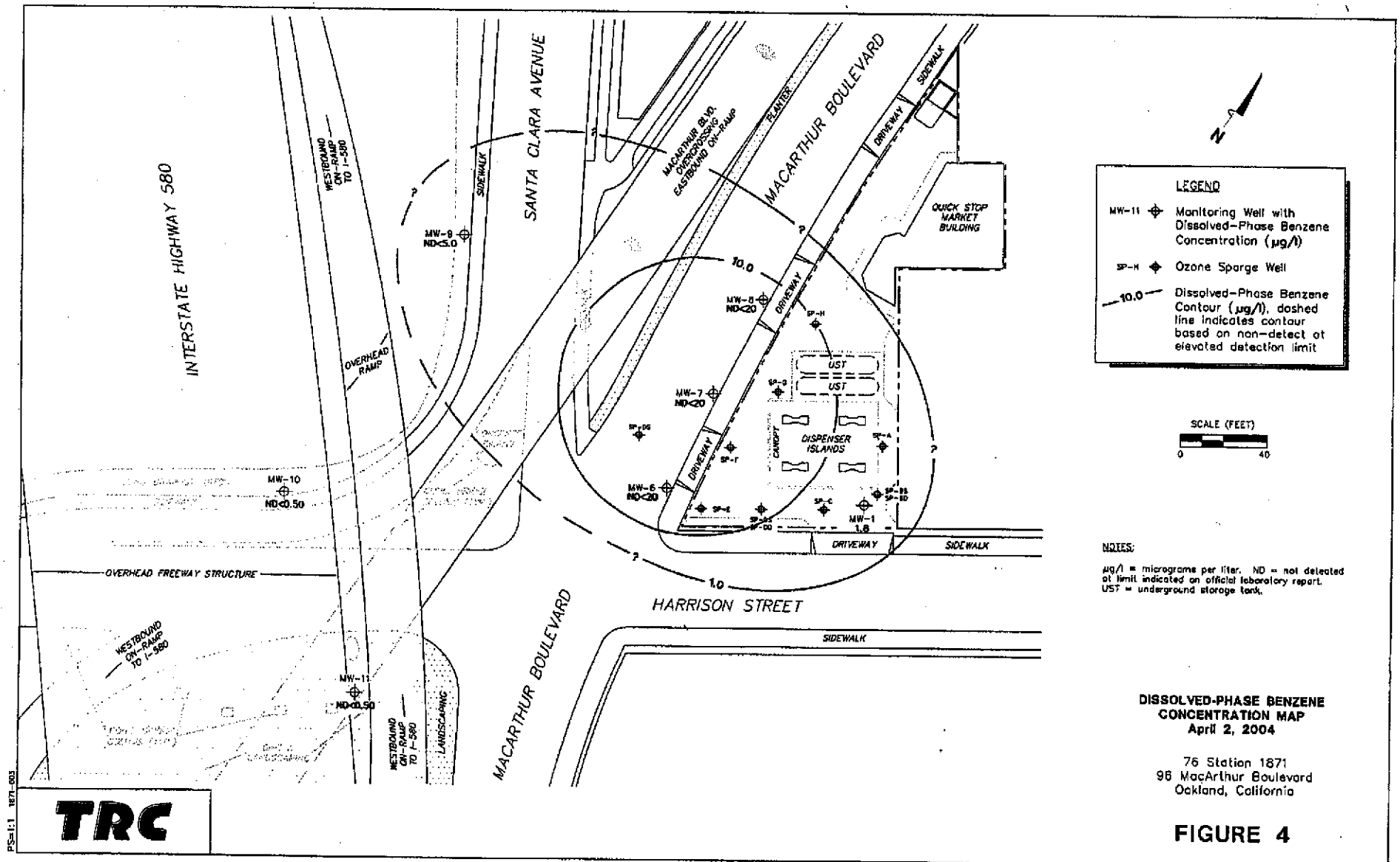

DISSOLVED-PHASE BENZENE CONCENTRATION MAP
April 2, 2004

76 Station 1871
98 MacArthur Boulevard
Oakland, California

FIGURE 4

TRC

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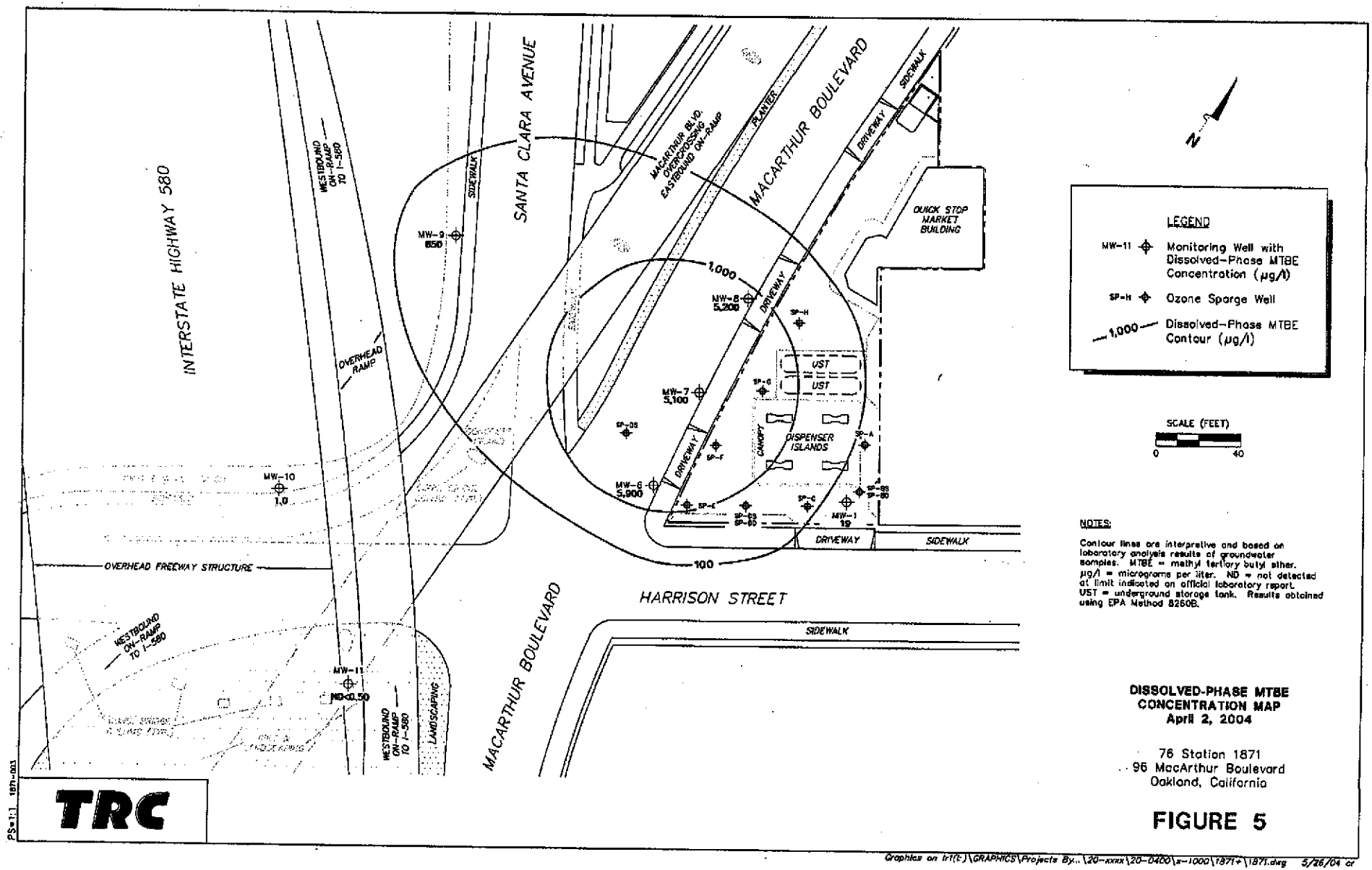

NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.

DISSOLVED-PHASE MTBE CONCENTRATION MAP
April 2, 2004

76 Station 1871
96 MacArthur Boulevard
Oakland, California

FIGURE 5

TRC

PS=1:1 1871-003

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RO 455

TRC
Customer-Focused Solutions

February 20, 2004

ConocoPhillips Company
76 Broadway
Sacramento, CA 95818

ATTN: MR. THOMAS H. KOSEL

SITE: 76 STATION 1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT
JANUARY THROUGH MARCH 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

Anju Farfan
QMS Operations Manager

CC: Alameda County Health Care Services
Barbara Moed, TRC

Enclosures
1871R02.QMS

21 Technology Drive • Irvine, California 92618
Telephone 949-727-9336 • Fax 949-727-7399

TRC

Customer-Focused Solutions

FIRST QUARTER 2004
FLUID LEVEL MONITORING AND
GROUNDWATER SAMPLING REPORT
February 20, 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

21 Technology Drive • Irvine, California 92618
Telephone 949-727-9336 • Fax 949-727-7399

GROUNDWATER 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 Hydrocarbon Concentration Map
Graphs	Benzene Concentrations vs. Time Hydrographs
Field Activities	General Field Procedures Groundwater Sampling Field Notes
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statement	Purge Water Transport and Disposal Limitations

Summary of Gauging and Sampling Activities
January 2004 through March 2004
76 Station 1871
96 MacArthur
Oakland, CA

Site Information:

Site:	76 Station 96 MacArthur Oakland, CA
Project Coordinator/Phone Number:	Thomas Kosel/916-558-7666
Groundwater wells onsite:	1
Groundwater wells offsite:	6

Field Activity:

Sampling consultant:	TRC
Date(s) sampled:	1/7/04
Groundwater wells gauged:	7
Groundwater wells sampled:	7
Purging method:	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):	6.22
Maximum depth to groundwater (feet bgs):	16.2
Average groundwater elevation (feet relative to mean sea level):	70.07
Average change in groundwater elevations since previous event (feet):	1.30
Groundwater gradient and flow direction:	0.05 ft/ft, southwest
Previous gradient and/or flow direction (and date):	0.02 ft/ft, southwest (10/2/03)

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

Wells with benzene concentrations below MCL:	5
Wells with benzene concentrations at or above MCL:	2
Minimum benzene concentration (µg/l):	ND
Maximum benzene concentration (µg/l):	690 (MW-1)
Minimum MTBE concentration (µg/l):	ND
Maximum MTBE concentration (µg/l):	19000 (MW-7)
Minimum TPPH concentration (µg/l):	ND
Maximum TPPH concentration (µg/l):	34000 (MW-1)
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
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, ethylbenzene, 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 µg/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

January 7, 2004

76 Station 1871

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
MW-1		**(Screen Interval in feet: 9.5-24.5)**												
1/7/04	86.99	12.30	0.00	74.69	2.65	--	34000	690	41	1600	5200	--	2600	
MW-6		**(Screen Interval in feet: 5.0-25.0)**												
1/7/04	79.67	8.08	0.00	71.59	1.84	--	140	2.4	ND<1.0	8.6	13	--	86	
MW-7		**(Screen Interval in feet: 5.0-25.0)**												
1/7/04	80.67	7.27	0.00	73.40	2.62	--	ND<20000	ND<200	460	ND<200	540	--	19000	
MW-8		**(Screen Interval in feet: 5.0-25.0)**												
1/7/04	81.71	8.21	0.00	73.50	2.20	--	ND<5000	ND<50	ND<50	ND<50	340	--	3700	
MW-9		**(Screen Interval in feet: DNA)**												
1/7/04	82.07	14.65	0.00	67.42	1.63	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1200	
MW-10		**(Screen Interval in feet: DNA)**												
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	
MW-11		**(Screen Interval in feet: DNA)**												
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	

Table 2

HISTORIC GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS

November 1992 Through January 2004

76 Station 1871

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
MW-1	**(Screen Interval in feet: 9.5-24.5)**													
1/25/93	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	--	--	
10/19/93	81.18	15.20	0.00	65.98	-0.69	67000	--	1400	2600	2900	5000	--	--	
1/20/94	81.18	15.17	0.00	66.01	0.03	92000	--	1200	3000	3400	17000	--	--	
4/13/94	81.18	14.44	0.00	66.74	0.73	51000	--	1000	2600	3200	15000	--	--	
7/13/94	81.18	14.88	0.00	66.30	-0.44	35000	--	550	150	1400	5700	--	--	
10/10/94	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	--	--	
7/24/95	81.18	13.97	0.00	67.21	-1.29	48000	--	1500	420	2700	9700	--	--	
10/23/95	81.18	14.85	0.00	66.33	-0.88	47000	--	780	210	2100	11000	270	--	
1/18/96	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	--	
7/24/96	86.24	14.15	0.00	72.09	-0.75	5600	--	2100	ND	160	160	24000	--	
10/24/96	86.24	14.85	0.00	71.39	-0.70	110000	--	7500	8000	3300	14000	58000	--	
1/28/97	86.24	11.25	0.00	74.99	3.60	94000	--	7700	19000	3100	15000	120000	--	
7/29/97	86.24	14.67	0.00	71.57	-3.42	ND	--	ND	ND	ND	ND	70000	--	
1/14/98	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	--	
6/18/99	86.24	13.93	0.00	72.31	0.39	49000	--	6900	6500	380	12000	72000	47000	
1/21/00	86.24	15.05	0.00	71.19	-1.12	63700	--	5520	2000	2640	13100	57100	--	
7/10/00	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	
7/16/01	86.24	14.32	0.00	71.92	0.60	66000	--	7100	330	2300	9800	36000	41000	

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
MW-1 continued														
1/31/02	86.99	13.54	0.00	73.45	1.53	42000	--	5800	1800	2000	8200	26000	26000	
4/11/02	86.99	13.64	0.00	73.35	-0.10	58000	--	2900	1200	1800	10000	--	19000	
7/11/02	86.99	13.96	0.00	73.03	-0.32	--	5900	330	ND<10	230	600	3400	3400	
10/15/02	86.99	14.71	0.00	72.28	-0.75	--	470	16	ND<2.5	14	16	390	390	
1/14/03	86.99	12.77	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	86.99	13.18	0.00	73.81	-0.41	--	510	57	0.62	29	61	160	160	
7/16/03	86.99	14.26	0.00	72.73	-1.08	--	27000	260	23	730	3200	1200	1200	
10/2/03	86.99	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	
MW-2	**(Screen Interval in feet: DNA)**													
11/3/92	76.61	--	--	--	--	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	--	--	
10/19/93	76.61	11.18	0.00	65.43	-1.01	670	--	24	1.1	7.7	23	--	--	
1/20/94	76.61	11.12	0.00	65.49	0.06	820	--	97	ND	12	ND	--	--	
4/13/94	76.61	10.12	0.00	66.49	1.00	550	--	71	ND	5.1	1.3	--	--	
7/13/94	76.61	10.86	0.00	65.75	-0.74	2000	--	490	ND	17	13	--	--	
10/10/94	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	--	--	
10/23/95	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	--	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	--	
10/24/96	81.66	10.78	0.00	70.88	-0.76	800	--	110	17	11	20	20000	--	
1/28/97	81.66	7.70	0.00	73.96	3.08	45000	--	2400	2900	2000	7600	29000	--	
7/29/97	81.66	10.28	0.00	71.38	-2.58	ND	--	1.2	0.72	0.63	0.62	17000	--	

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
MW-2 continued														
1/14/98	81.66	8.63	0.00	73.03	1.65	14000	--	1000	150	790	3300	23000	--	
7/1/98	81.66	9.53	0.00	72.13	-0.90	2700	--	100	ND	180	78	7100	--	
6/18/99	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-3 (Screen Interval in feet: DNA)														
11/3/92	77.48	--	--	--	--	2100	--	120	15	38	200	--	--	
1/25/93	77.48	--	--	--	--	2300	--	80	1	55	52	--	--	
4/29/93	77.48	11.37	0.00	66.11	--	4500	--	1700	ND	200	140	--	--	
7/16/93	77.48	12.09	0.00	65.39	-0.72	4000	--	1100	28	52	70	--	--	
10/19/93	77.48	12.69	0.00	64.79	-0.60	3800	--	42	ND	50	56	--	--	
1/20/94	77.48	12.65	0.00	64.83	0.04	4200	--	11	ND	21	15	--	--	
4/13/94	77.48	12.02	0.00	65.46	0.63	4200	--	210	ND	36	53	--	--	
7/13/94	77.48	12.46	0.00	65.02	-0.44	1800	--	16	16	ND	21	--	--	
10/10/94	77.48	12.98	0.00	64.50	-0.52	4300	--	11	ND	12	ND	--	--	
1/10/95	77.48	10.42	0.00	67.06	2.56	310	--	4.6	ND	3.5	2.1	--	--	
4/17/95	77.48	10.42	0.00	67.06	0.00	7800	--	ND	4.6	300	450	--	--	
7/24/95	77.48	11.76	0.00	65.72	-1.34	3200	--	170	ND	22	16	--	--	
10/23/95	77.48	12.50	0.00	64.98	-0.74	3900	--	55	ND	19	11	4500	--	
1/18/96	77.48	11.79	0.00	65.69	0.71	2200	--	270	33	26	18	5500	--	
4/18/96	82.55	11.30	0.00	71.25	5.56	6000	--	1800	ND	100	230	48000	--	
7/24/96	82.55	12.17	0.00	70.38	-0.87	ND	--	2500	ND	ND	ND	71000	--	
10/24/96	82.55	12.65	0.00	69.90	-0.48	3800	--	660	ND	15	ND	65000	--	
1/28/97	82.55	9.50	0.00	73.05	3.15	4400	--	250	13	87	47	54000	--	
7/29/97	82.55	11.99	0.00	70.56	-2.49	ND	--	3500	ND	220	ND	75000	--	
1/14/98	82.55	10.30	0.00	72.25	1.69	ND	--	430	ND	100	380	37000	--	
7/1/98	82.55	11.70	0.00	70.85	-1.40	ND	--	430	ND	ND	ND	45000	--	
6/18/99	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-4 (Screen Interval in feet: DNA)														
4/18/96	82.04	9.83	0.00	72.21	--	ND	--	630	ND	ND	ND	18000	--	
7/24/96	82.04	10.47	0.00	71.57	-0.64	ND	--	ND	ND	ND	5.2	3900	--	

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
MW-4 continued														
10/24/96	82.04	11.14	0.00	70.90	-0.67	ND	--	ND	ND	ND	ND	6300	--	
1/28/97	82.04	7.94	0.00	74.10	3.20	1200	--	490	ND	17	6.8	16000	--	
7/29/97	82.04	10.86	0.00	71.18	-2.92	50	--	1.5	0.61	0.73	0.78	15000	--	
1/14/98	82.04	8.73	0.00	73.31	2.13	ND	--	ND	ND	ND	ND	5200	--	
7/1/98	82.04	10.51	0.00	71.53	-1.78	ND	--	ND	ND	ND	ND	640	--	
6/18/99	82.04	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-5	**(Screen Interval in feet: DNA)**													
4/18/96	81.80	9.65	0.00	72.15	--	31000	--	5500	1400	1700	8100	66000	--	
7/24/96	81.80	10.80	0.00	71.00	-1.15	32000	--	6400	ND	1600	6100	120000	--	
10/24/96	81.80	11.40	0.00	70.40	-0.60	17000	--	6900	ND	970	130	84000	--	
1/28/97	81.80	7.76	0.00	74.04	3.64	19000	--	6100	62	82	310	160000	--	
7/29/97	81.80	11.58	0.00	70.22	-3.82	ND	--	ND	ND	ND	ND	71000	--	
1/14/98	81.80	9.08	0.00	72.72	2.50	ND	--	3600	ND	ND	ND	80000	--	
7/1/98	81.80	11.25	0.00	70.55	-2.17	6400	--	2100	21	120	330	61000	--	
6/18/99	81.80	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-6	**(Screen Interval in feet: 5.0-25.0)**													
6/18/99	78.91	9.30	0.00	69.61	--	2100	--	21	29	ND	47	97000	71000	
1/21/00	78.91	9.37	0.00	69.54	-0.07	1880	--	143	31.2	106	196	41200	48800	
7/10/00	78.91	8.94	0.00	69.97	0.43	5710	--	869	209	301	1430	22200	19500	
1/4/01	78.91	9.21	0.00	69.70	-0.27	ND	--	ND	ND	ND	ND	--	9510	
7/16/01	78.91	9.42	0.00	69.49	-0.21	4800	--	200	21	150	440	29000	34000	
1/31/02	78.91	8.50	0.00	70.41	0.92	12000	--	250	92	500	1500	26000	31000	
4/11/02	79.67	9.08	0.00	70.59	0.18	3600	--	42	32	39	280	120000	--	
7/11/02	79.67	9.70	0.00	69.97	-0.62	--	12000	ND<100	ND<100	ND<100	ND<200	--	15000	
10/15/02	79.67	9.96	0.00	69.71	-0.26	--	1300	ND<10	ND<10	ND<10	ND<20	--	3200	
1/14/03	79.67	8.31	0.00	71.36	1.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
4/16/03	79.67	8.21	0.00	71.46	0.10	--	270	ND<0.50	ND<0.50	ND<0.50	1.3	--	15	
7/16/03	79.67	9.43	0.00	70.24	-1.22	--	290	39	0.6	ND<0.50	15	--	150	
10/2/03	79.67	9.92	0.00	69.75	-0.49	--	200	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	220	

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
MW-6 continued														
1/7/04	79.67	8.08	0.00	71.59	1.84	--	140	2.4	ND<1.0	8.6	13	--	86	
MW-7	**(Screen Interval in feet: 5.0-25.0)**													
6/18/99	79.92	8.70	0.00	71.22	--	ND	--	ND	ND	ND	ND	16000	13000	
1/21/00	79.92	9.30	0.00	70.62	-0.60	ND	--	ND	ND	ND	ND	12300	18200	
7/10/00	79.92	8.72	0.00	71.20	0.58	ND	--	ND	ND	ND	ND	16900	13800	
1/4/01	79.92	9.17	0.00	70.75	-0.45	ND	--	ND	ND	ND	0.719	--	37.3	
7/16/01	79.92	9.02	0.00	70.90	0.15	ND	--	ND	ND	ND	ND	7200	4700	
1/31/02	79.92	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	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
7/11/02	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
10/15/02	80.67	9.81	0.00	70.86	--	--	ND<5000	ND<50	ND<50	ND<50	ND<100	--	12000	
1/14/03	80.67	7.89	0.00	72.78	1.92	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	33000	
4/16/03	80.67	8.04	0.00	72.63	-0.15	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	37000	
7/16/03	80.67	9.19	0.00	71.48	-1.15	--	25000	ND<250	ND<250	ND<250	ND<500	--	38000	
10/2/03	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	
MW-8	**(Screen Interval in feet: 5.0-25.0)**													
6/18/99	80.96	9.10	0.00	71.86	--	ND	--	ND	ND	ND	ND	290	160	
1/21/00	80.96	10.00	0.00	70.96	-0.90	ND	--	ND	ND	ND	1.09	224	221	
7/10/00	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	
7/16/01	80.96	9.15	0.00	71.81	0.61	ND	--	ND	ND	ND	ND	66	70	
1/31/02	80.96	7.99	0.00	72.97	1.16	5900	--	86	ND<10	630	390	670	700	
4/11/02	81.71	9.00	0.00	72.71	-0.26	250	--	2.0	ND<0.50	38	2.2	410	--	
7/11/02	81.71	9.60	0.00	72.11	-0.60	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
10/15/02	81.71	10.60	0.00	71.11	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	
1/14/03	81.71	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	

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
MW-8 continued														
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	
MW-9	**(Screen Interval in feet: DNA)**													
1/31/02	82.07	14.72	0.00	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	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	
MW-10	**(Screen Interval 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	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	
MW-11	**(Screen Interval in feet: DNA)**													
1/31/02	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	
4/11/02	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	--	
7/11/02	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	
10/15/02	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	
1/14/03	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	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	

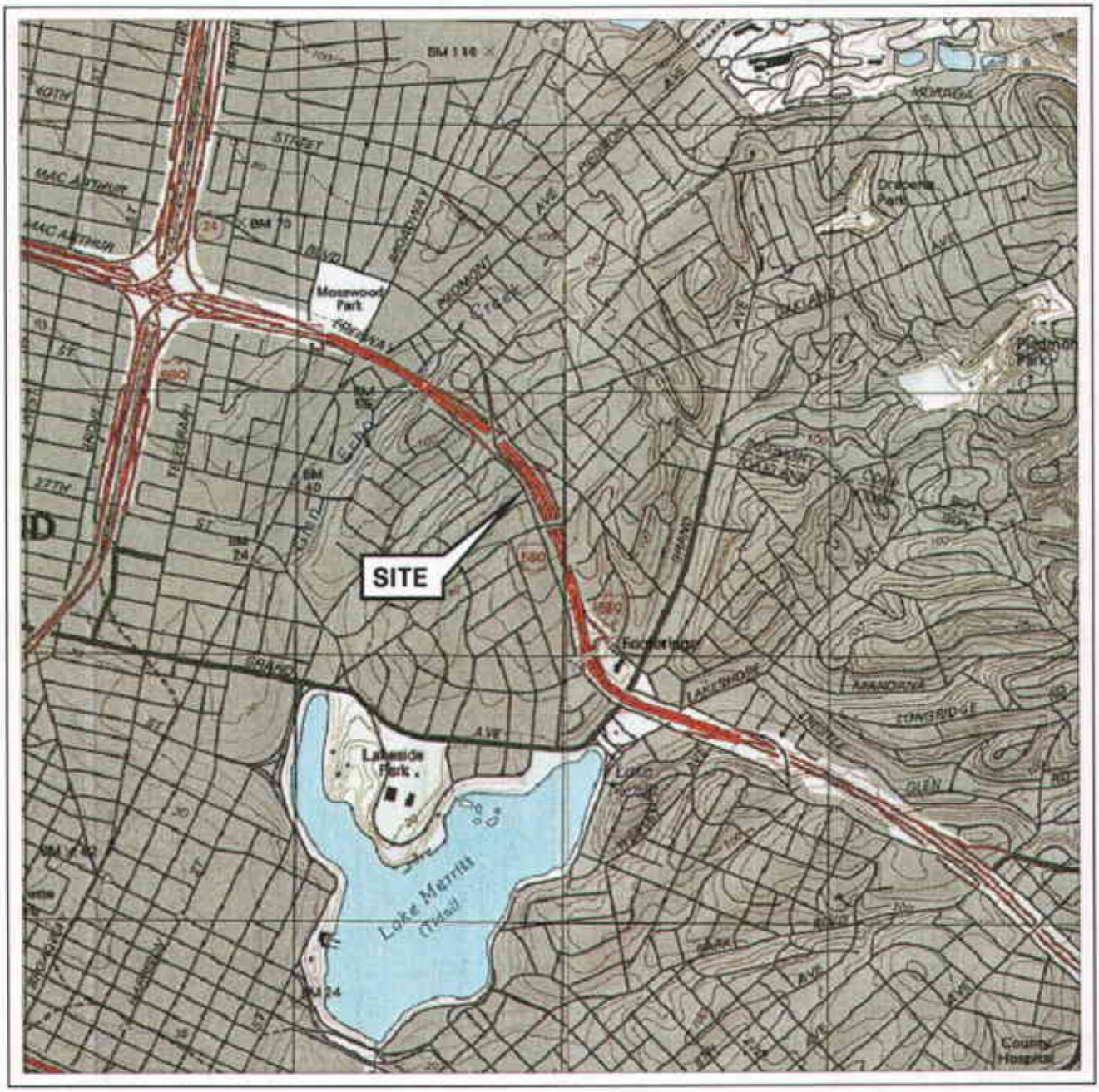
Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
MW-11 continued														
7/16/03	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	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	
Trip Blank	**(Screen Interval in feet: DNA)**													
7/10/00	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	

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	--	--	--	--	--	--	--	ND<25000	--	--
1/7/04	--	--	--	--	--	--	--	ND<20000	--	--
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	--	--	--	--	--	--	--	ND<1000	--	--
1/7/04	--	--	--	--	--	--	--	ND<1000	--	--
MW-7										
6/18/99	--	ND	ND	ND	ND	ND	ND	--	--	ND
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

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-7 continued										
7/16/03	--	--	--	--	--	--	ND<250000	--	--	--
10/2/03	--	--	--	--	--	--	--	ND<100000	--	--
1/7/04	--	--	--	--	--	--	--	ND<200000	--	--
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	--	--
MW-9										
10/2/03	--	--	--	--	--	--	--	ND<5000	--	--
1/7/04	--	--	--	--	--	--	--	ND<10000	--	--
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	--	--
MW-11										
10/2/03	--	--	--	--	--	--	--	ND<500	--	--
1/7/04	--	--	--	--	--	--	--	ND<500	--	--

FIGURES



0 1/4 1/2 3/4 1 MILE

SCALE 1: 24,000

N

SOURCE:

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

VICINITY MAP

76 Station 1871
96 MacArthur Boulevard
Oakland, California

TRC

FIGURE 1

PS = 1:1

Graphics on Ir1(i:)\VICINITY MAPS\1871vm.dwg 11/17/03 cme

INTERSTATE HIGHWAY 580

WESTBOUND ON-RAMP TO I-580

OVERHEAD RAMP

SIDEWALK

SANTA CLARA AVENUE

MACARTHUR BLVD. OVERCROSSING EASTBOUND ON-RAMP

PLANTER

MACARTHUR BOULEVARD

DRIVEWAY

SIDEWALK

QUICK STOP MARKET BUILDING

MW-9
67.42

69.50

73.50

MW-8
73.50

SP-H

UST

UST

SP-G

MW-7
73.40

SP-DS

SP-F

CANOPY

DISPENSER ISLANDS

SP-A

DRIVEWAY

MW-6
71.59

SP-E

SP-DS
SP-DD

SP-C

MW-1
74.69

SP-BS
SP-BD

DRIVEWAY

SIDEWALK

MW-10
68.76

65.50

OVERHEAD FREEWAY STRUCTURE

61.50

WESTBOUND ON-RAMP TO I-580

MW-11
61.11

WESTBOUND ON-RAMP TO I-580

LANDSCAPING

MACARTHUR BOULEVARD

HARRISON STREET

SIDEWALK

N

LEGEND

MW-11 — Monitoring Well with Groundwater Elevation (feet)

SP-H — Ozone Sparge Well

73.50 — Groundwater Elevation Contour

General Direction of Groundwater Flow

SCALE (FEET)

0 40

NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank.

GROUNDWATER ELEVATION CONTOUR MAP
January 7, 2004

76 Station 1871
96 MacArthur Boulevard
Oakland, California

FIGURE 2

TRC

PS=1:1

Graphics on Ir1(I:)\GRAPHICS\Projects By...\20-xxxx\20-0400\x-1000\1871+\1871.dwg 2/9/04 bbs

INTERSTATE HIGHWAY 580

WESTBOUND ON-RAMP TO I-580

SIDEWALK

SANTA CLARA AVENUE

MACARTHUR BLVD. OVERCROSSING EASTBOUND ON-RAMP

PLANTER

MACARTHUR BOULEVARD

SIDEWALK

DRIVEWAY

QUICK STOP MARKET BUILDING

DRIVEWAY

OVERHEAD RAMP

MW-9	
TPPH	ND<1,000
B	ND<10
MTBE	1,200

MW-8	
TPPH	ND<5,000
B	ND<50
MTBE	3,700

SP-H

MW-7	
TPPH	ND<20,000
B	ND<200
MTBE	19,000

MW-7

UST

UST

SP-G

SP-DS

CANOPY

DISPENSER ISLANDS

SP-A

DRIVEWAY

SP-F

SP-BS

SP-BD

SP-C

SP-E

SP-DS

SP-DD

DRIVEWAY

SIDEWALK

MW-10	
TPPH	54
B	ND<0.50
MTBE	ND<2.0

MW-6	
TPPH	140
B	2.4
MTBE	86

MW-1	
TPPH	34,000
B	690
MTBE	2,600

OVERHEAD FREEWAY STRUCTURE

HARRISON STREET

SIDEWALK

WESTBOUND ON-RAMP TO I-580

MW-11	
TPPH	63
B	ND<0.50
MTBE	ND<2.0

WESTBOUND ON-RAMP TO I-580

LANDSCAPING

MACARTHUR BOULEVARD

N

LEGEND

Well No.	
TPPH	µg/l
B	µg/l
MTBE	µg/l

Monitoring Well with Dissolved-Phase Hydrocarbon Concentrations (µg/l)

SP-H Ozone Sparge Well

SCALE (FEET)

0 40

NOTES:

TPPH = total purgeable petroleum hydrocarbons. B = benzene. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS MAP
January 7, 2004

76 Station 1871
96 MacArthur Boulevard
Oakland, California

FIGURE 3

TRC

PS=1:1

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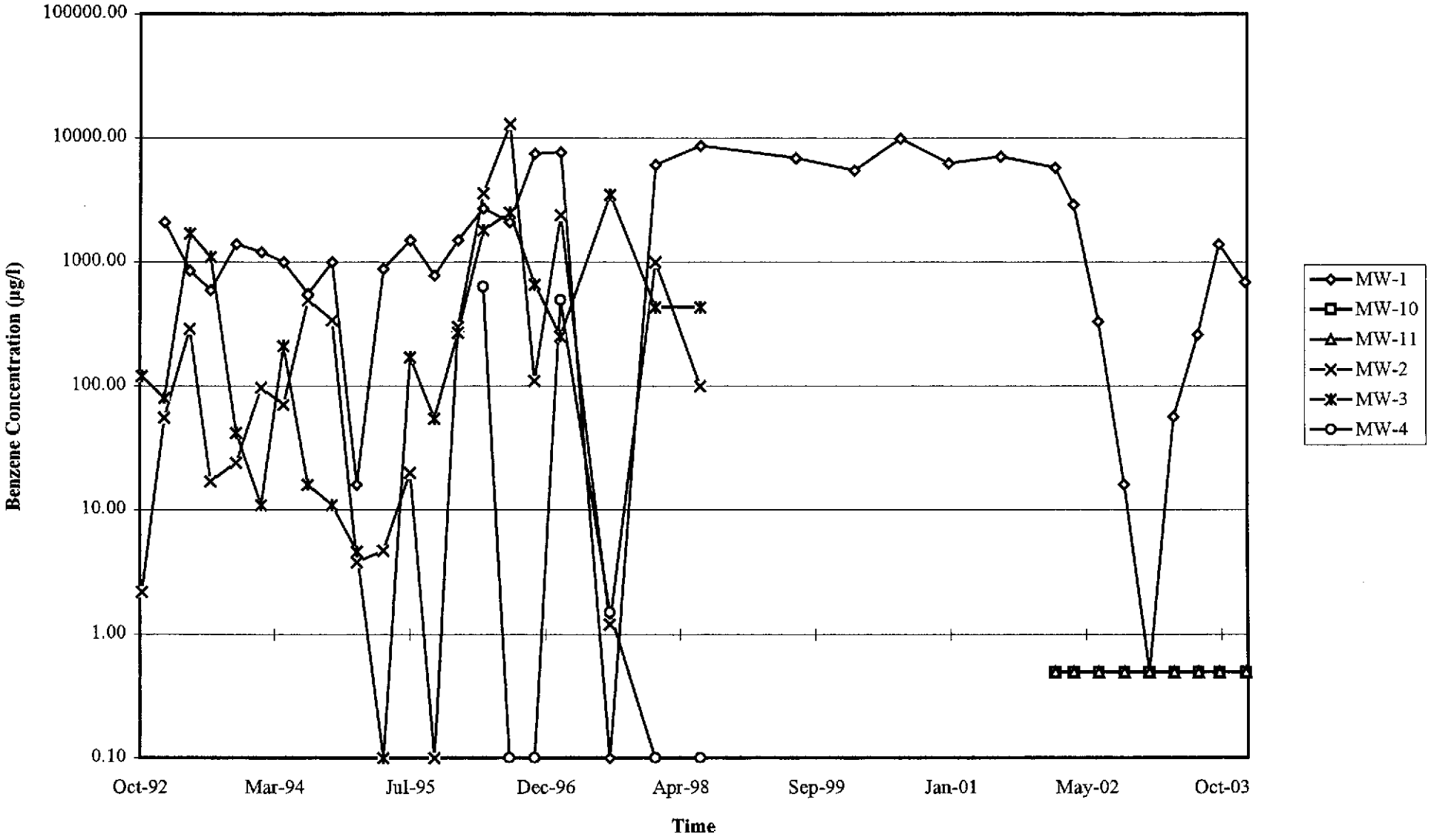
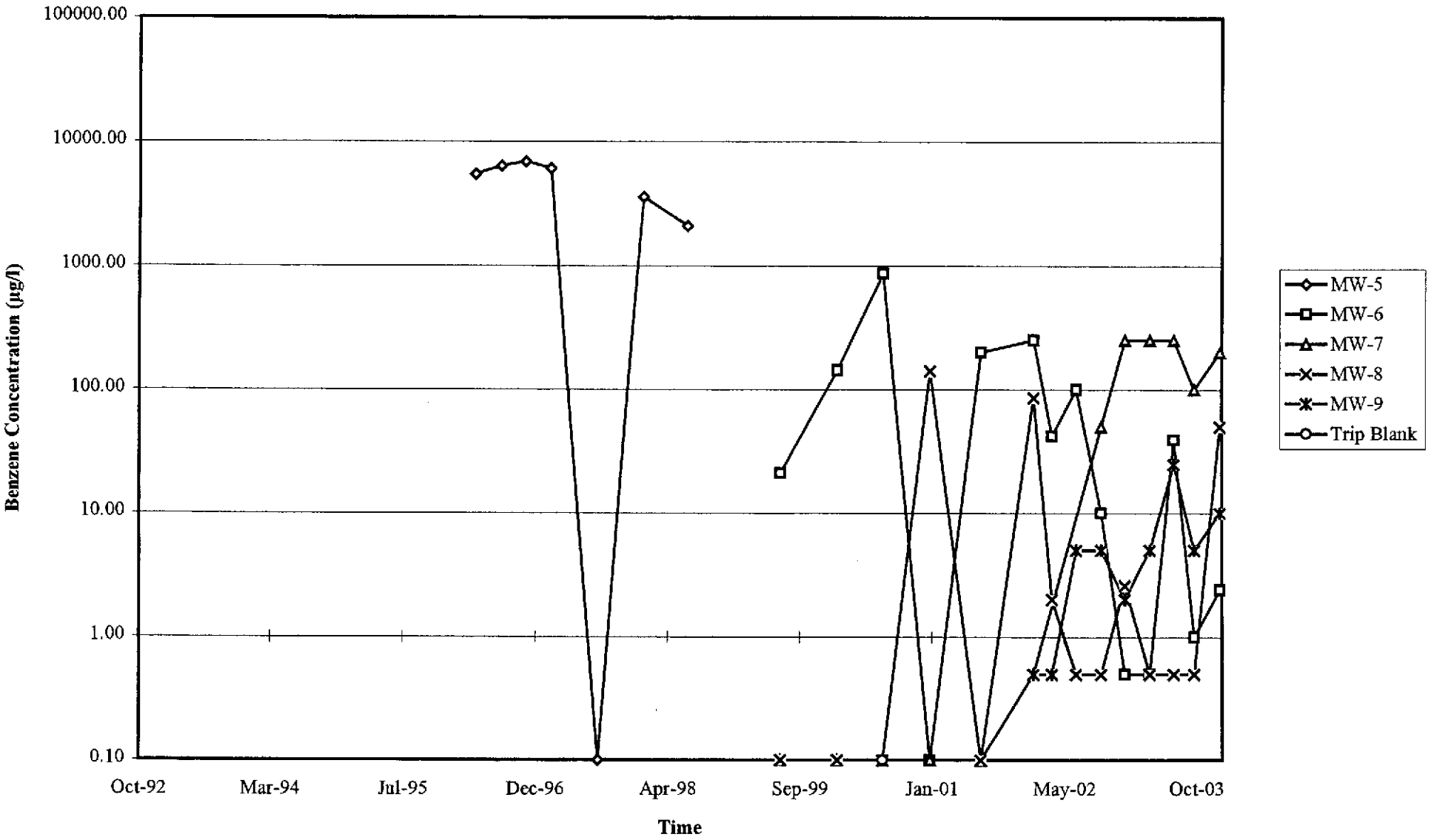
GRAPHS

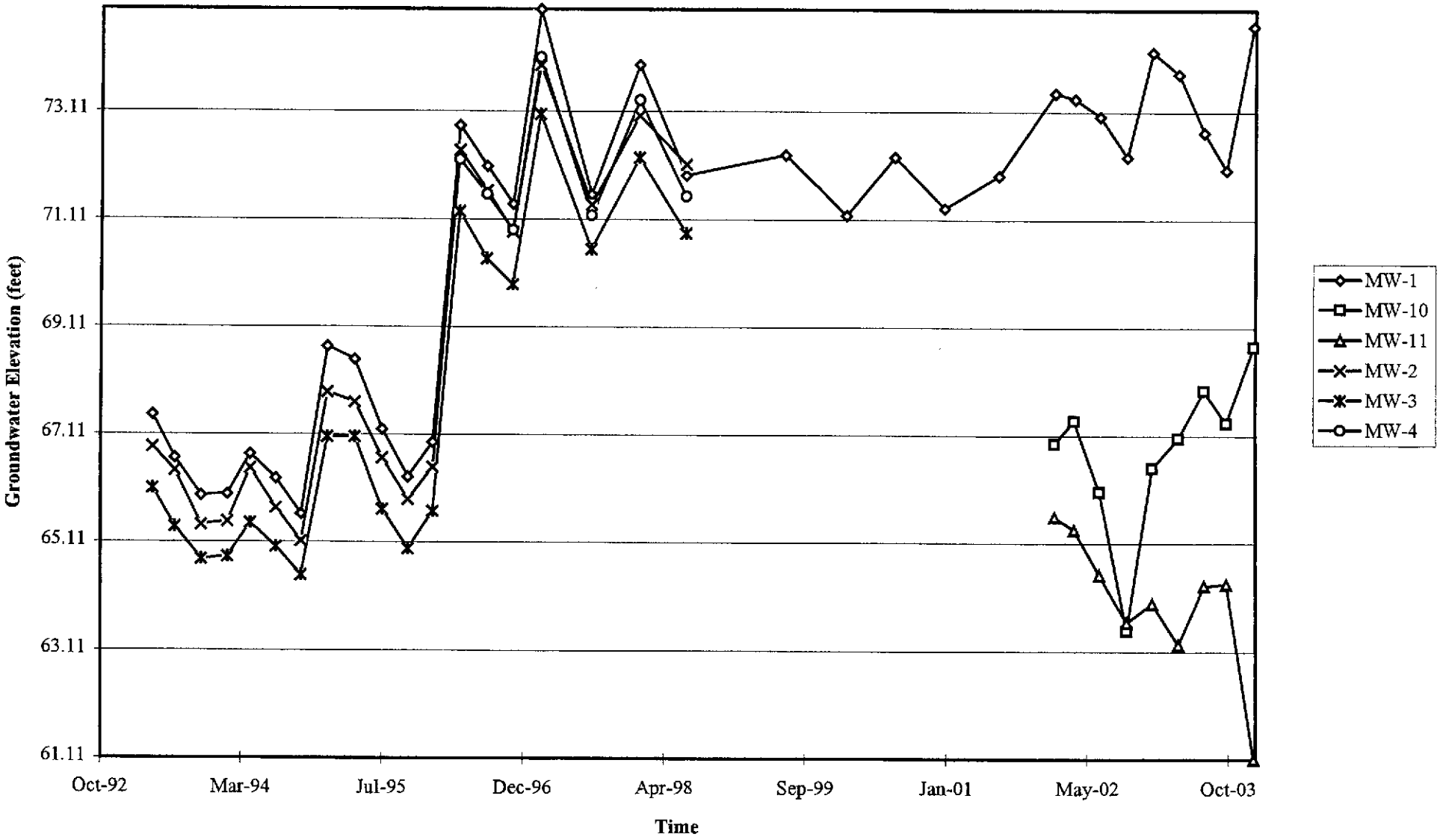
Graph 1
Benzene Concentrations vs. Time
76 Station 1871



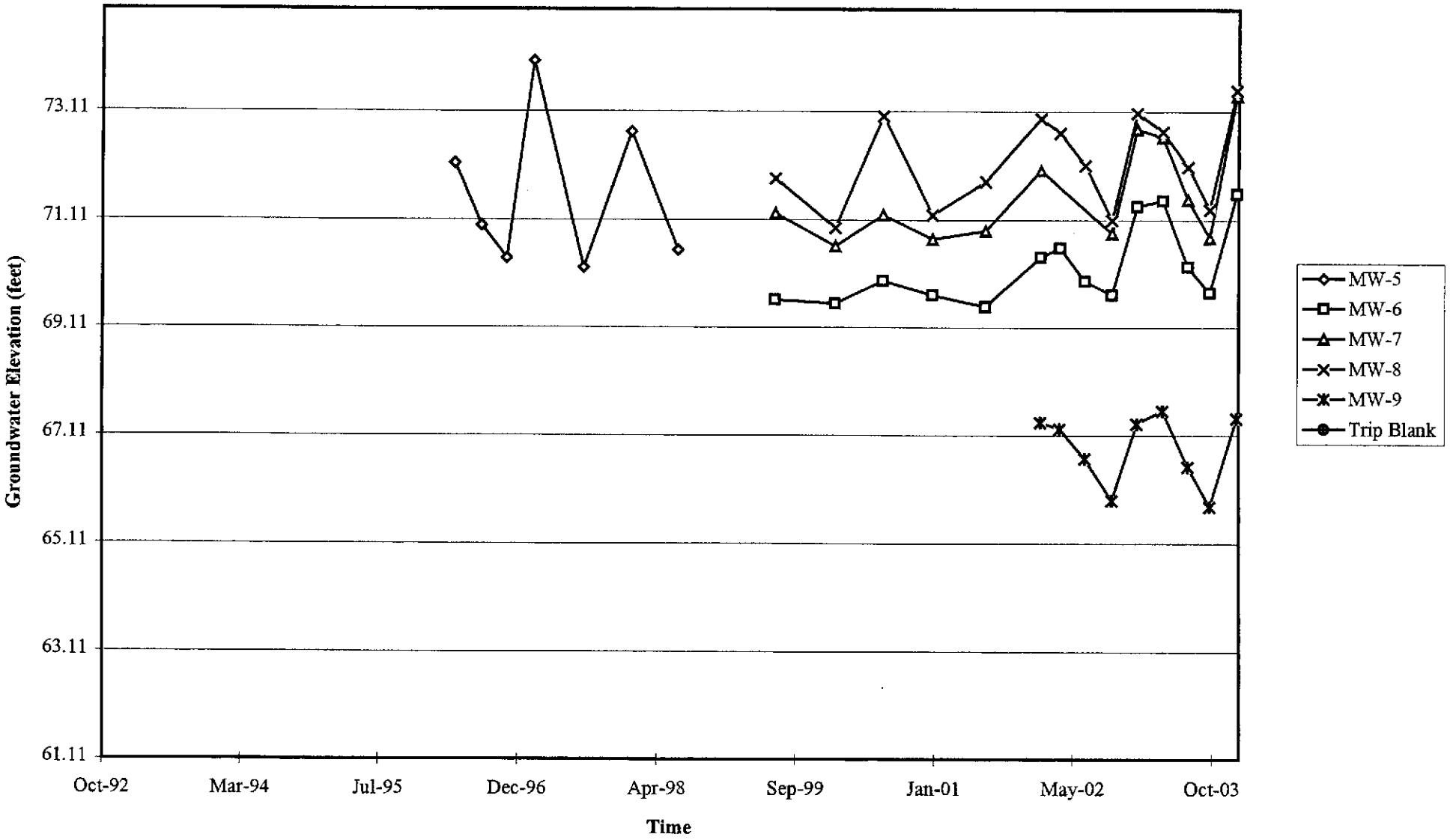
Graph 2
Benzene Concentrations vs. Time
76 Station 1871



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: [illegible] Job #/Task #: 91650001 FA20 Date: 01/07/09

Site # 1871 Project Manager Kathie Deskin Page 1 of 1

Well #	Grade	TOC	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-1		✓	24.03	12.30	0	0	1123	4"
MW-8		✓	24.27	8.21	0	0	1157	2"
MW-7		✓	24.28	7.27	0	0	1149	2"
MW-6		✓	24.49	8.08	0	0	1141	2"
MW-9		✓	19.85	14.65	0	0	1207	2"
MW-10		✓	19.91	6.22	0	0	1248	2"
MW-11		✓	30.00	16.20	0	0	1311	2"

FIELD DATA COMPLETE ✓	QA/QC	COC ✓	WELL BOX CONDITION ✓ SHEETS
WTT CERTIFICATE	MANIFEST	DRUM INVENTORY ✓	TRAFFIC CONTROL ✓

GROUNDWATER SAMPLING FIELD NOTES

Technician: USOA

Site: 1871 Project No.: 41050001 Date: 11/7/09

Well No.: MW-1 Purge Method: DIA

Depth to Water (feet): 12.30 Depth to Product (feet): 0

Total Depth (feet): 24.03 LPH & Water Recovered (gallons): 0

Water Column (feet): 11.73 Casing Diameter (Inches): 4

80% Recharge Depth (feet): 14.69 1 Well Volume (gallons): 8

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	~~Turbidity~~ ORP	D.O.
0840			8	707	20.2	7.08	14.2	12.31
			16	727	20.3	7.18	47	8.39
	0915		24	705	18.1	7.32	29	12.12

Static at Time Sampled	Total Gallons Purged	Time Sampled
19.15	24	1133

Comments: @ 17 GALLON WELL GOT DRY. WAIT TO RECHARGE. (25 MIN), WAIT TO RECHARGE (80%), DID NOT RECOVER WITHIN 2HR.

Well No.: MW-6 Purge Method: DIA

Depth to Water (feet): 8.08 Depth to Product (feet): 0

Total Depth (feet): 24.49 LPH & Water Recovered (gallons): 0

Water Column (feet): 16.41 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 11.36 1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	~~Turbidity~~ ORP	D.O.
0921			3	716	15.8	7.39	-12	14.29
			6	731	17.8	7.36	12	13.83
	0930		9	759	17.3	7.36	24	12.63

Static at Time Sampled	Total Gallons Purged	Time Sampled
8.53	9	1141

Comments: WAIT TO RECHARGE (80%

GROUNDWATER SAMPLING FIELD NOTES

Technician: WELL

Site: 1671 Project No.: 41050001 Date: 1/7/04

Well No.: MW-7
Depth to Water (feet): 7.27
Total Depth (feet): 24.28
Water Column (feet): 17.01
80% Recharge Depth (feet): 10.67

Purge Method: DIA
Depth to Product (feet): 0
LPH & Water Recovered (gallons): 0
Casing Diameter (Inches): 2"
1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	~~Turbidity~~ ORP	D.O.
0935			3	844	18.3	7.39	23	10.85
			6	842	18.4	7.36	18	11.40
	0942		9	832	19.0	7.35	5	10.79

Static at Time Sampled	Total Gallons Purged	Time Sampled
7.70	9	1149

Comments: WAIT FOR WELL TO RECHARGE (80%)

Well No.: MW-8
Depth to Water (feet): 8.21
Total Depth (feet): 24.27
Water Column (feet): 16.06
80% Recharge Depth (feet): 11.42

Purge Method: DIA
Depth to Product (feet): 0
LPH & Water Recovered (gallons): 0
Casing Diameter (Inches): 2"
1 Well Volume (gallons): 3

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	~~Turbidity~~ ORP	D.O.
0948			3	619	15.0	7.47	-15	13.13
			6	615	19.1	7.42	1	12.60
	0957		9	619	18.9	7.41	21	9.94

Static at Time Sampled	Total Gallons Purged	Time Sampled
9.55	9	1157

Comments: WAIT FOR WELL TO RECHARGE (80%)

GROUNDWATER SAMPLING FIELD NOTES

Technician: LYDELL

Site: 1871 Project No.: 41050001 Date: 11/7/04

Well No.: MW-9 Purge Method: DIA

Depth to Water (feet): 14.65 Depth to Product (feet): 0

Total Depth (feet): 19.85 LPH & Water Recovered (gallons): 0

Water Column (feet): 5.2 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 15.69 1 Well Volume (gallons): 1

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F,C)	pH	~~ORP~~ Turbidity	D.O.
1023			1	650	16.3	7.51	9	12.00
			2	646	16.0	7.46	23	12.06
	1028		3	634	16.7	7.42	27	10.45

Static at Time Sampled	Total Gallons Purged	Time Sampled
14.65	3	1207

Comments: WAIT WELL TO RECHARGE 80%

Well No.: MW-10 Purge Method: DIA

Depth to Water (feet): 6.22 Depth to Product (feet): 0

Total Depth (feet): 19.91 LPH & Water Recovered (gallons): 0

Water Column (feet): 13.69 Casing Diameter (Inches): 2"

80% Recharge Depth (feet): 8.95 1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F,C)	pH	~~ORP~~ Turbidity	D.O.
1037			2	545	15.4	7.50	35	11.62
			4	545	15.3	7.48	50	11.99
	1042		6	574	15.7	7.46	59	10.04

Static at Time Sampled	Total Gallons Purged	Time Sampled
11.20	6	1248

Comments: WAIT WELL TO RECHARGE 80%, DID NOT RECOVER WITHIN 2HR..

GROUNDWATER SAMPLING FIELD NOTES

Technician: MOGL

Site: 1871 Project No.: 41050001 Date: 1/7/05

Well No.: MW-11 Purge Method: DTP

Depth to Water (feet): 16.20 Depth to Product (feet): 0

Total Depth (feet): 30.00 LPH & Water Recovered (gallons): 0

Water Column (feet): 13.8 Casing Diameter (inches): 2"

80% Recharge Depth (feet): 18.96 1 Well Volume (gallons): 2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	~~Turbidity~~ ORP	D.O.
1057			2	1572	14.0	7.93	99	13.82
			4	1613	15.6	7.41	96	12.27
	1105		6	1621	15.9	7.40	103	11.69

Static at Time Sampled	Total Gallons Purged	Time Sampled
16.52	6	1311

Comments: WAIT FOR WELL TO RECHARGE 80% (2HR)

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 Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	Turbidity	D.O.

Static at Time Sampled	Total Gallons Purged	Time Sampled

Comments:

SEVERN TRENT STL

Submission#: 2004-01-0214

TRC Alton Geoscience

January 21, 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 01/08/2004 16:12
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 02/22/2004 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

SEVERN TRENT STL

Submission #: 2004-01-0214

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: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/07/2004 11:33	Water	1
MW-8	01/07/2004 11:57	Water	2
MW-7	01/07/2004 11:49	Water	3
MW-6	01/07/2004 11:41	Water	4
MW-9	01/07/2004 12:07	Water	5
MW-10	01/07/2004 12:48	Water	6
MW-11	01/07/2004 13:11	Water	7

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: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

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

Sample ID: **MW-1**
Lab ID: 2004-01-0214 - 1

Sampled: 01/07/2004 11:33
Extracted: 1/18/2004 11:24

Matrix: Water
QC Batch#: 2004/01/18-01.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	34000	2000	ug/L	40.00	01/18/2004 11:24	
Benzene	690	20	ug/L	40.00	01/18/2004 11:24	
Toluene	41	20	ug/L	40.00	01/18/2004 11:24	
Ethylbenzene	1600	20	ug/L	40.00	01/18/2004 11:24	
Total xylenes	5200	40	ug/L	40.00	01/18/2004 11:24	
Methyl tert-butyl ether (MTBE)	2600	80	ug/L	40.00	01/18/2004 11:24	
Ethanol	ND	20000	ug/L	40.00	01/18/2004 11:24	
Surrogate(s)						
1,2-Dichloroethane-d4	91.4	76-114	%	40.00	01/18/2004 11:24	
Toluene-d8	90.5	88-110	%	40.00	01/18/2004 11:24	

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: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Prep(s): 5030B
Test(s): 8260FAB
Sample ID: **MW-8**
Lab ID: 2004-01-0214 - 2
Sampled: 01/07/2004 11:57
Extracted: 1/18/2004 11:46
Matrix: Water
QC Batch#: 2004/01/18-01.64
Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	5000	ug/L	100.00	01/18/2004 11:46	
Benzene	ND	50	ug/L	100.00	01/18/2004 11:46	
Toluene	ND	50	ug/L	100.00	01/18/2004 11:46	
Ethylbenzene	ND	50	ug/L	100.00	01/18/2004 11:46	
Total xylenes	340	100	ug/L	100.00	01/18/2004 11:46	
Methyl tert-butyl ether (MTBE)	3700	200	ug/L	100.00	01/18/2004 11:46	
Ethanol	ND	50000	ug/L	100.00	01/18/2004 11:46	
Surrogate(s)						
1,2-Dichloroethane-d4	88.9	76-114	%	100.00	01/18/2004 11:46	
Toluene-d8	92.9	88-110	%	100.00	01/18/2004 11:46	

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: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

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

Sample ID: **MW-7**
Lab ID: 2004-01-0214 - 3

Sampled: 01/07/2004 11:49
Extracted: 1/18/2004 12:08

Matrix: Water
QC Batch#: 2004/01/18-01.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	20000	ug/L	400.00	01/18/2004 12:08	
Benzene	ND	200	ug/L	400.00	01/18/2004 12:08	
Toluene	460	200	ug/L	400.00	01/18/2004 12:08	
Ethylbenzene	ND	200	ug/L	400.00	01/18/2004 12:08	
Total xylenes	540	400	ug/L	400.00	01/18/2004 12:08	
Methyl tert-butyl ether (MTBE)	19000	800	ug/L	400.00	01/18/2004 12:08	
Ethanol	ND	200000	ug/L	400.00	01/18/2004 12:08	
Surrogate(s)						
1,2-Dichloroethane-d4	91.9	76-114	%	400.00	01/18/2004 12:08	
Toluene-d8	91.5	88-110	%	400.00	01/18/2004 12:08	

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: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Prep(s): 5030B
Test(s): 8260FAB
Sample ID: **MW-6**
Lab ID: 2004-01-0214 - 4
Sampled: 01/07/2004 11:41
Extracted: 1/18/2004 12:30
Matrix: Water
QC Batch#: 2004/01/18-01.64
Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	140	100	ug/L	2.00	01/18/2004 12:30	
Benzene	2.4	1.0	ug/L	2.00	01/18/2004 12:30	
Toluene	ND	1.0	ug/L	2.00	01/18/2004 12:30	
Ethylbenzene	8.6	1.0	ug/L	2.00	01/18/2004 12:30	
Total xylenes	13	2.0	ug/L	2.00	01/18/2004 12:30	
Methyl tert-butyl ether (MTBE)	86	4.0	ug/L	2.00	01/18/2004 12:30	
Ethanol	ND	1000	ug/L	2.00	01/18/2004 12:30	
Surrogate(s)						
1,2-Dichloroethane-d4	102.7	76-114	%	2.00	01/18/2004 12:30	
Toluene-d8	92.9	88-110	%	2.00	01/18/2004 12:30	

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: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Prep(s): 5030B
Sample ID: **MW-9**
Sampled: 01/07/2004 12:07
Matrix: Water

Test(s): 8260FAB
Lab ID: 2004-01-0214 - 5
Extracted: 1/18/2004 12:52
QC Batch#: 2004/01/18-01.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/L	20.00	01/18/2004 12:52	
Benzene	ND	10	ug/L	20.00	01/18/2004 12:52	
Toluene	ND	10	ug/L	20.00	01/18/2004 12:52	
Ethylbenzene	ND	10	ug/L	20.00	01/18/2004 12:52	
Total xylenes	ND	20	ug/L	20.00	01/18/2004 12:52	
Methyl tert-butyl ether (MTBE)	1200	40	ug/L	20.00	01/18/2004 12:52	
Ethanol	ND	10000	ug/L	20.00	01/18/2004 12:52	
Surrogate(s)						
1,2-Dichloroethane-d4	96.0	76-114	%	20.00	01/18/2004 12:52	
Toluene-d8	88.3	88-110	%	20.00	01/18/2004 12:52	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 41050001FA20
Conoco Phillips #1871

Received: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Prep(s): 5030B
Sample ID: **MW-10**
Sampled: 01/07/2004 12:48
Matrix: Water

Test(s): 8260FAB
Lab ID: 2004-01-0214 - 6
Extracted: 1/18/2004 13:14
QC Batch#: 2004/01/18-01.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	54	50	ug/L	1.00	01/18/2004 13:14	
Benzene	ND	0.50	ug/L	1.00	01/18/2004 13:14	
Toluene	ND	0.50	ug/L	1.00	01/18/2004 13:14	
Ethylbenzene	1.3	0.50	ug/L	1.00	01/18/2004 13:14	
Total xylenes	4.5	1.0	ug/L	1.00	01/18/2004 13:14	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	01/18/2004 13:14	
Ethanol	ND	500	ug/L	1.00	01/18/2004 13:14	
Surrogate(s)						
1,2-Dichloroethane-d4	90.5	76-114	%	1.00	01/18/2004 13:14	
Toluene-d8	90.7	88-110	%	1.00	01/18/2004 13:14	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 41050001FA20
Conoco Phillips #1871

Received: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Prep(s): 5030B
Sample ID: **MW-11**
Sampled: 01/07/2004 13:11
Matrix: Water

Test(s): 8260FAB
Lab ID: 2004-01-0214 - 7
Extracted: 1/18/2004 14:21
QC Batch#: 2004/01/18-01.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	63	50	ug/L	1.00	01/18/2004 14:21	g
Benzene	ND	0.50	ug/L	1.00	01/18/2004 14:21	
Toluene	ND	0.50	ug/L	1.00	01/18/2004 14:21	
Ethylbenzene	0.68	0.50	ug/L	1.00	01/18/2004 14:21	
Total xylenes	2.2	1.0	ug/L	1.00	01/18/2004 14:21	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	01/18/2004 14:21	
Ethanol	ND	500	ug/L	1.00	01/18/2004 14:21	
Surrogate(s)						
1,2-Dichloroethane-d4	87.5	76-114	%	1.00	01/18/2004 14:21	
Toluene-d8	90.3	88-110	%	1.00	01/18/2004 14:21	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 41050001FA20
Conoco Phillips #1871

Received: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/01/18-01.64-023

Water

Test(s): 8260FAB
QC Batch # 2004/01/18-01.64
Date Extracted: 01/18/2004 09:23

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/18/2004 09:23	
Benzene	ND	0.5	ug/L	01/18/2004 09:23	
Toluene	ND	0.5	ug/L	01/18/2004 09:23	
Ethylbenzene	ND	0.5	ug/L	01/18/2004 09:23	
Total xylenes	ND	1.0	ug/L	01/18/2004 09:23	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/18/2004 09:23	
Ethanol	ND	500	ug/L	01/18/2004 09:23	
Surrogates(s)					
1,2-Dichloroethane-d4	84.8	76-114	%	01/18/2004 09:23	
Toluene-d8	88.2	88-110	%	01/18/2004 09:23	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience
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Project: 41050001FA20
Conoco Phillips #1871

Received: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2004/01/18-01.64**

LCS 2004/01/18-01.64-039 Extracted: 01/18/2004 Analyzed: 01/18/2004 08:39
LCSD 2004/01/18-01.64-001 Extracted: 01/18/2004 Analyzed: 01/18/2004 09:01

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	24.6	23.8	25.0	98.4	95.2	3.3	69-129	20		
Toluene	25.0	25.0	25.0	100.0	100.0	0.0	70-130	20		
Methyl tert-butyl ether (MTBE)	24.0	20.9	25.0	96.0	83.6	13.8	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	432	385	500	86.4	77.0		76-114			
Toluene-d8	445	462	500	89.0	92.4		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience
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Project: 41050001FA20
Conoco Phillips #1871

Received: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Matrix Spike (MS / MSD) **Water** **QC Batch # 2004/01/18-01.64**

MW-10 >> MS

Lab ID: 2004-01-0214 - 006

MS: 2004/01/18-01.64-036 Extracted: 01/18/2004

Analyzed: 01/18/2004 13:36

Dilution: 1.00

MSD: 2004/01/18-01.64-059 Extracted: 01/18/2004

Analyzed: 01/18/2004 13:59

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	27.3	23.5	ND	25.0	109.2	94.0	15.0	69-129	20		
Toluene	28.0	24.8	ND	25.0	112.0	99.2	12.1	70-130	20		
Methyl tert-butyl ether	25.7	24.1	ND	25.0	102.8	96.4	6.4	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	459	446		500	91.8	89.2		76-114			
Toluene-d8	462	450		500	92.4	90.1		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience
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Project: 41050001FA20
Conoco Phillips #1871

Received: 01/08/2004 16:12

Site: 96 MacArthur, Oakland

Legend and Notes

Analysis Flag

o

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.

SEVERN TRENT STL

STL San Francisco

Sample Receipt Checklist

Submission #:2004- 01 - 0214

Checklist completed by: (initials) DSL Date: 01/09/04

Courier name: ☒ STL San Francisco ☐ Client _____

Custody seals intact on shipping container/samples	Yes___ No___	Not Present ✓
Chain of custody present?	Yes ✓ No___	
Chain of custody signed when relinquished and received?	Yes ✓ No___	
Chain of custody agrees with sample labels?	Yes ✓ No___	
Samples in proper container/bottle?	Yes ✓ No___	
Sample containers intact?	Yes ✓ No___	
Sufficient sample volume for indicated test?	Yes ✓ No___	
All samples received within holding time?	Yes ✓ No___	
Container/Temp Blank temperature in compliance (4^{o} C ± 2)?	Temp: 3.1 °C Yes ✓ No___	
	Ice Present Yes ✓ No___	
Water - VOA vials have zero headspace?	No VOA vials submitted___ Yes ✓ No___	

(if bubble is present, refer to approximate bubble size and itemize in comments as **S** (small ~O), **M** (medium ~ O) or **L** (large ~ O)

Water - **pH acceptable upon receipt?** ☒ Yes ☐ No

☐ **pH adjusted**– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc –**Lot #(s)** _____

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments:

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) _____ Date: ___/___/04

Client contacted: ☐ Yes ☐ No

Summary of discussion:

Corrective Action (per PM/Client):

2004-01-0214

ConocoPhillips Chain Of Custody Record

81823

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS: CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

ConocoPhillips Work Order Number:

ConocoPhillips Cost Object:

DATE: 01/07/04

PAGE: 1 of 1

SAMPLING COMPANY: TRC	Valid Value ID:
ADDRESS: 21 Technology Drive, Irvine CA 92618	
PROJECT CONTACT (Hardcopy or PDF Report to): Anju Farfan	
TELEPHONE: 949-341-7440 / FAX: 949-753-0111 / E-MAIL: afarfan@trcsolutions.com	
SAMPLER NAME(S) (Print): LYDELL	CONSULTANT PROJECT NUMBER: 41050001/FA20
CONOCOPHILLIPS SITE NUMBER: 1871	GLOBAL ID NO.: T0600101493
SITE ADDRESS (Street and City): 96 MacARTHUR, OAKLAND	CONOCOPHILLIPS SITE MANAGER:
EDF DELIVERABLE TO (RP or Designee): Peter Thomson, TRC pthomson@trcsolutions.com	PHONE NO.: 949-341-7408 / E-MAIL:

TURNAROUND TIME (CALENDAR DAYS): ☒ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

* Field Point name only required if different from Sample ID

REQUESTED ANALYSES

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8260B - TPHg/BTEX/MtBE	8260B - TPHg / BTEX / 8 Oxygenates	8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/MtBE	Lead ☐Total ☐STLC ☐TCLP	TPH GAS 8260B	BTEX/MTBE/ETHANOL 8260B
	MW-1	01/07/04	1133	GW	3									X	X
	MW-8		1157												
	MW-7		1149												
	MW-6		1141												
	MW-9		1207												
	MW-10		1248												
	MW-11		1311												

FIELD NOTES:

Container/Preservative or PID Readings or Laboratory Notes

3.1

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) 1/6/04	Received by: (Signature)	Date: 1/8/04	Time: 1100
Relinquished by: (Signature)	Received by: (Signature)	Date: 01/08/04	Time: 1612

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.