

76 Broadway Sacramento, California 95818

October 27, 2005

Mr. Don Hwang Alameda County Health Agency 1131 Harbor Bay Parkway Alameda, California 94502

Re: Report Transmittal
Quarterly Report
Third Quarter – 2005
76 Service Station #1871
96 MacArthur Boulevard
Oakland, CA

Dear Mr. Hwang:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact

Shelby S. Lathrop (Contractor) ConocoPhillips Risk Management & Remediation 76 Broadway Sacramento, CA 95818 Phone: 916-558-7609

Fax: 916-558-7639

Sincerely,

Thomas Kosel

Risk Management & Remediation

Attachment

#### **RECEIVED**

10:39 am, Nov 03, 2008

Alameda County
Environmental Health



October 27, 2005

TRC Project No. 42016103

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

RE: Quarterly Status Report - Third Quarter 2005 76 Service Station #1871, 96 MacArthur Boulevard, Oakland, California Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Third Quarter 2005 Status Report for the subject site. The site is an operating service station located on the north corner of the intersection of MacArthur Boulevard and Harrison Street in Oakland, California.

#### **PREVIOUS ASSESSMENTS**

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 frequency 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.

QSR – Third Quarter 2005 76 Service Station #1871, Oakland, California October 27, 2005 Page 2

Gettler-Ryan Inc. (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 development of a Risk Based Corrective Action (RBCA) evaluation for the site.

February 1999: GR performed a RBCA evaluation. The RBCA evaluation concluded 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 1/4 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

No potential receptors for impacted groundwater were identified within a ¼mile radius of the site during the RBCA evaluation. No other sensitive receptor surveys have been conducted for the site.

#### MONITORING AND SAMPLING

One onsite and six offsite wells are currently monitored quarterly. All wells were sampled this quarter. The groundwater flow is toward the southwest at a calculated hydraulic gradient of 0.03 feet per foot.

#### CHARACTERIZATION STATUS

Total purgeable petroleum hydrocarbons (TPPH) were detected in four of seven wells, at a maximum concentration of 8,200 micrograms per liter ( $\mu g/l$ ) in onsite well MW-1.

Benzene was detected in one of seven wells at a concentration of 22 µg/l in onsite well MW-1.



QSR – Third Quarter 2005 76 Service Station #1871, Oakland, California October 27, 2005 Page 3

Methyl tertiary butyl ether (MTBE) was detected in five of seven wells, at a maximum concentration of 5,700 µg/l in offsite well MW-7.

Hydrocarbon impacts are not fully delineated offsite. Perimeter downgradient monitoring well MW-8 contained 520  $\mu$ g/l MTBE. Perimeter downgradient monitoring well MW-9 contained 2,400  $\mu$ g/l MTBE. Perimeter downgradient monitoring wells MW-10 and MW-11 were non-detect for TPPH, benzene, and 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 157 pounds of ozone have been injected.

#### RECENT CORRESPONDENCE

No correspondence this quarter.

#### **CURRENT QUARTER ACTIVITIES**

September 28, 2005: 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.

July-September 2005: SECOR performed operations and maintenance activities on the ozone sparging system throughout the quarter. Due to a malfunctioning hour meter, the exact hours of operation are unknown. However, the system was operating during each site visit. Approximately 13.86 pounds of ozone were injected during the third quarter. No waste was generated at the site.

#### CONCLUSIONS AND RECOMMENDATIONS

TRC recommends continuing quarterly monitoring and sampling to assess plume stability and concentration trends and continuing operation of the ozone sparging system to reduce hydrocarbon mass in the subsurface.

SECOR will replace the hour meter on the ozone sparging system.



QSR – Third Quarter 2005 76 Service Station #1871, Oakland, California October 27, 2005 Page 4

If you have any questions regarding this report, please call me at (925) 688-2488.

Sincerely, *TRC* 

Keith Woodburne, P.G. Senior Project Geologist

Attachments:

Quarterly Monitoring Report, July through September 2005 (TRC, October 20, 2005) Quarterly Remedial Performance Summary – Third Quarter 2005 (SECOR, October 13, 2005)

cc: Shelby Lathrop, ConocoPhillips (via electronic upload, without attachments)



October 20, 2005

ConocoPhillips Company 76 Broadway Sacramento, California 95818

ATTN:

MS. SHELBY LATHROP

SITE:

**76 STATION 1871** 

96 MACARTHUR BOULEVARD

OAKLAND, CALIFORNIA

RE:

QUARTERLY MONITORING REPORT JULY THROUGH SEPTEMBER 2005

Dear Ms. Lathrop:

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. Keith Woodburne, TRC (3 copies)



### QUARTERLY MONITORING REPORT JULY THROUGH SEPTEMBER 2005

76 STATION 1871 96 MacArthur Boulevard Oakland, California

Prepared For:

Ms. Shelby Lathrop CONOCOPHILLIPS COMPANY 76 Broadway Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations October 18, 2005

	LIST OF ATTACHMENTS
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key
	Table 1: Current Fluid Levels and Selected Analytical Results
	Table 2: Historic Fluid Levels and Selected Analytical Results
	Table 3: Additional Analytical 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	Groundwater Elevations vs. Time
	Benzene Concentrations vs. Time
Field Activities	General Field Procedures
	Groundwater Sampling Field Notes
Laboratory	Official Laboratory Reports
Reports	Quality Control Reports
	Chain of Custody Records
Statements	Purge Water Disposal
	Limitations

### **Summary of Gauging and Sampling Activities** July 2005 through September 2005 76 Station 1871 96 MacArthur Oakland, CA

Project Coordinator: Shelby Lathrop

Telephone: **916-558-7609** 

Water Sampling Contractor: TRC

Compiled by: Christina Carrillo

Date(s) of Gauging/Sampling Event: 09/28/05

**Sample Points** 

Groundwater wells:

1 onsite,

**6** offsite

Wells gauged: 7

Wells sampled: 7

Purging method: Diaphragm pump/bailer Purge water disposal: Onyx/Rodeo Unit 100

Other Sample Points: 0

Type: n/a

**Liquid Phase Hydrocarbons (LPH)** 

Wells with LPH: 0

Maximum thickness (feet): n/a

LPH removal frequency: n/a Method: n/a

Treatment or disposal of water/LPH: n/a

**Hydrogeologic Parameters** 

Depth to groundwater (below TOC):

Minimum: 7.52 feet

Maximum: **16.78 feet** 

Average groundwater elevation (relative to available local datum): **68.61 feet** Average change in groundwater elevation since previous event: -1.61 feet

Interpreted groundwater gradient and flow direction:

Current event:

0.03 ft/ft, southwest

Previous event: \*see notes (06/23/05)

**Selected Laboratory Results** 

Wells with detected **Benzene**:

Wells above MCL (1.0 µg/l): 1

1 Maximum reported benzene concentration: 22 µg/l (MW-1)

Wells with **TPPH 8260B** 

Maximum: **8,200 μg/i (MW-1)** 

Wells with MTBE

Maximum: 5,700 μg/l (MW-7)

Notes:

<sup>\*</sup>Groundwater gradient flow is 0.03ft/ft West and 0.03ft/ft South.

# **TABLES**

#### TABLE KEY

#### STANDARD ABREVIATIONS

-- e not analyzed, measured, or collected

LPH = liquid-phase hydrocarbons Trace = less than 0.01 foot of LPH in well

mg/l = micrograms per liter (approx. equivalent to parts per billion, ppb)
mg/l = milligrams per liter (approx. equivalent to parts per million, ppm)

ND < = not detected at or above laboratory detection limit
TOC = top of casing (surveyed reference elevation)

#### **ANALYTES**

BTEX = benzene, toluene, ethylbenzene, and (total) xylenes

DIPE = di-isopropyl ether
ETBE = ethyl tertiary butyl ether
MTBE = methyl tertiary butyl ether
PCB = polychlorinated biphenyls

PCE = tetrachloroethene
TBA = tertiary butyl alcohol
TCA = trichloroethane
TCE = trichloroethene

TPH-G = total petroleum hydrocarbons with gasoline distinction TPH-D = total petroleum hydrocarbons with diesel distinction

TPPH = total purgeable petroleum hydrocarbons
TRPH = total recoverable petroleum hydrocarbons

TAME = tertiary amyl methyl ether

1,1-DCA = 1,1-dichloroethane

1,2-DCA = 1,2-dichloroethane (same as EDC, ethylene dichloride)

1,1-DCE = 1,1-dichloroethene

1,2-DCE = 1,2-dichloroethene (cis- and trans-)

#### **NOTES**

- 1. Elevations are in feet above mean sea level. Depths are in feet below surveyed top-of-casing.
- 2. Groundwater elevations for wells with LPH are calculated as: Surface Elevation Measured Depth to Water + (Dp x LPH Thickness), where Dp is the density of the LPH, if known. A value of 0.75 is used for gasoline and when the density is not known. A value of 0.83 is used for diesel.
- 3. Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures).
- 4. Comments shown on tables are general. Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report.
- 5. A "J" flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory.
- 6. Other laboratory flags (qualifiers) may have been reported. See the official laboratory report (attached) for a complete list of laboratory flags.
- 7. Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display. Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report.
- 8. Groundwater vs. Time graphs may be corrected for apparent level changes due to re-survey.

#### REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 1871 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 28, 2005
76 Station 1871

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	ТРРН 8260В	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	
MW-1		(Screen I	nterval in fe	et: 9.5-24.	5)									
09/28/0:	5 86.99	14.63	0.00	72.36	-1.24		8200	22	0.97	290	660		320	
MW-6		(Screen I	nterval in fe	et: 5.0-25.	0)									
09/28/0:	5 79.67	9.56	0.00	70.11	-1.23	·	500	ND<0.50	ND<0.50	ND<0.50	1.2		980	
MW-7		(Screen I	nterval in fe	et: 5.0-25.	0)									
09/28/0:	5 80.67	9.37	0.00	71.30	-0.81		1200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5700	
MW-8		(Screen I	nterval in fe	et: 5.0-25.	0)									
09/28/03	5 81.71	9.61	0.00	72.10	-1.27		270	ND<0.50	ND<0.50	ND<0.50	ND<1.0		520	
MW-9		(Screen I	nterval in fe	et: DNA)										
09/28/03	5 82.07	15.67	0.00	66.40	-1.27		ND<2500	ND<25	ND<25	ND<25	ND<50		2400	
MW-10		(Screen I	nterval in fe	et: DNA)										
09/28/05	74.98	7.52	0.00	67.46	-1.06		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-11		(Screen I	nterval in fe	et: DNA)										
09/28/05	5 77.31	16.78	0.00	60.53	-4.41		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	<b></b>	ND<0.50	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
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)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B	MTBE 8260B	Comments
MW-1						(με/1)	(#81)	(μg/1)	(µg/1)	(μg/1)	(μg/1)	(μg/l)	(μg/l)	
11/03/9		Screen Inte	erval in feet	: 9.5-24.5) 		260000		2300	4600	3700	17000			
01/25/9			0.00			120000		2100	4600	4900	22000			
04/29/9				67.47		100000		850	2000	4300	19000			
07/16/9			0.00	66.67	-0.80	29000		590	560	980	4200			
10/19/9				65.98	-0.69	67000	<u></u>	1400	2600	2900	5000			
01/20/9			0.00	66.01	0.03	92000	 	1200	3000	3400	17000			
04/13/9				66.74	0.73	51000		1000	2600	3200	15000			
07/13/9				66.30	-0.44	35000		550	150	1400	5700			
10/10/9				65.63	-0.44	52000		1000	810					
01/10/9			0.00	68.74	3.11	810		16	18	3300 59	12000			
04/17/9			0.00	68.50	-0.24	48000	 	880			250			
07/24/9			0.00	67.21	-1.29	48000		1500	530 420	2500	11000			
10/23/9			0.00	66.33	-0.88	47000		780	210	2700	9700	270		
01/18/9			0.00	66.97	0.64	30000		1500	500	2100	11000	270		
04/18/9		13.40	0.00	72.84	5.87	66000		2700	2200	3500	13000	2400		
07/24/9		14.15	0.00	72.09	-0.75	5600				3100	13000	57000		
10/24/9		14.15	0.00	72.09	-0.73	110000		2100 7500	ND	160	160	24000		
01/28/9		11.25	0.00	74.99	3.60	94000			8000	3300	14000	58000		
07/29/9		14.67	0.00	71.57	-3.42	94000 ND		7700	19000	3100	15000	120000		
01/14/9		12.27	0.00	73.97	2.40			ND	ND	ND	ND	70000		
07/01/9		14.32	0.00	73.97		85000		6100	10000	3000	17000	110000		
06/18/9			0.00		-2.05	110000		8700	12000	2700	15000	110000		
		13.93		72.31	0.39	49000		6900	6500	380	12000	72000	47000	
01/21/0		15.05	0.00	71.19	-1.12	63700		5520	2000	2640	13100	57100		
07/10/0	0 86.24	13.97	0.00	72.27	1.08	67800		9910	4120	3330	16100	67400	54000	

Page 1 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)		Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (μg/l)	Benzene (µg/l)	Toluene (μg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (μg/l)	MTBE 8260B (μg/l)	Comments
MW-1	continued								(10)		(10)	4-6-7	(F-8-7	
01/04/0		14.92	0.00	71.32	-0.95	63900		6270	784	2670	12900		38100	
07/16/0	1 86.24	14.32	0.00	71.92	0.60	66000		7100	330	2300	9800	36000	41000	
01/31/0	2 86.99	13.54	0.00	73.45	1.53	42000		5800	1800	2000	8200	26000	26000	
04/11/0	2 86.99	13.64	0.00	73.35	-0.10	58000		2900	1200	1800	10000	19000		
07/11/0	2 86.99	13.96	0.00	73.03	-0.32		5900	330	ND<10	230	600	***	3400	
10/15/0	2 86.99	14.71	0.00	72.28	-0.75		470	16	ND<2.5	14	16		390	
01/14/0	3 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	
04/16/0	3 86.99	13.18	0.00	73.81	-0.41		510	57	0.62	29	61		160	
07/16/0	86.99	14.26	0.00	72.73	-1.08		27000	260	23	730	3200		1200	
10/02/0	3 86.99	14.95	0.00	72.04	,-0.69		45000	1400	32	2900	7600		3200	
01/07/0	86.99	12.30	0.00	74.69	2.65		34000	690	41	1600	5200		2600	
04/02/0	86.99	13.18	0.00	73.81	-0.88		350	1.8	ND<0.50	6.2	30		19	
07/29/0	86.99	14.61	0.00	72.38	-1.43		41000	550	ND<20	2000	6100		1200	
11/24/0	86.99	14.98	0.00	72.01	-0.37		55000	910	28	3100	11000		1600	
01/24/0	86.99	12.98	0.00	74.01	2.00		24000	240	ND<20	1100	3600		1800	
06/23/0	86.99	13.39	0.00	73.60	-0.41		24000	140	ND<25	1100	2900		600	
09/28/0	86.99	14.63	0.00	72.36	-1.24		8200	22	0.97	290	660		320	
MW-2	(5	Screen Inte	rval in feet	: DNA)										
11/03/9						140		2.2	ND	ND	2.0			
01/25/9	76.61					2100		56	1.1	90	140			
04/29/9	76.61	9.73	0.00	66.88		1500		290	ND	33	11			
07/16/9	76.61	10.17	0.00	66.44	-0.44	510		17	0.60	3.2	2.5			
10/19/9	76.61	11.18	0.00	65.43	-1.01	670		24	1.1	7.7	23			
01/20/9	76.61	11.12	0.00	65.49	0.06	820		97	ND	12	ND			

Page 2 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

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
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-2			0.00											
04/13/9		10.12		66.49	1.00	550		71	ND	5.1	1.3			
07/13/9		10.86		65.75	-0.74	2000		490	ND	17	13			
10/10/9		11.48	0.00	65.13	-0.62	2300		340	ND	25	ND			
01/10/9		8.71	0.00	67.90	2.77	850		3.8	ND	8.5	1.3			
04/17/9		8.90	0.00	67.71	-0.19	1300		4.7	ND	8.3	1.2			
07/24/9	76.61	9.94	0.00	66.67	<b>-</b> 1.04	960		20	ND	4.2	6.2			
10/23/9	76.61	10.70	0.00	65.91	-0.76	ND		ND	ND	ND	ND	19		
01/18/9	76.61	10.11	0.00	66.50	0.59	900		300	86	7.6	18	4300		
04/18/9	81.66	9.27	0.00	72.39	5.89	18000		3600	680	890	4100	19000	***	
07/24/9	96 81.66	10.02	0.00	71.64	-0.75	100000		13000	21000	2700	16000	120000		
10/24/9	96 81.66	10.78	0.00	70.88	-0.76	800		110	17	11	20	20000		
01/28/9	7 81.66	7.70	0.00	73.96	3.08	45000		2400	2900	2000	7600	29000		
07/29/9	7 81.66	10.28	0.00	71.38	-2.58	ND		1.2	0.72	0.63	0.62	17000		
01/14/9	81.66	8.63	0.00	73.03	1.65	14000		1000	150	790	3300	23000		
07/01/9	81.66	9.53	0.00	72.13	-0.90	2700		100	ND	180	78	7100		
06/18/9	9							en 144						Well was destroyed
MW-3	C	Screen Inte	erval in feet	· DNA)										
11/03/9						2100		120	15	38	200			
01/25/9	77.48					2300		80	1	55	52			
04/29/9	77.48	11.37	0.00	66.11		4500		1700	ND	200	140			
07/16/9	77.48	12.09	0.00	65.39	-0.72	4000		1100	28	52	70			
10/19/9	3 77.48	12.69	0.00	64.79	-0.60	3800		42	ND	50	56			
01/20/9	94 77.48	12.65	0.00	64.83	0.04	4200		11	ND	21	15			
04/13/9		12.02	0.00	65.46	0.63	4200		210	ND	36	53			

Page 3 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	ТРН-С	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-3	continued													
07/13/9				65.02	-0.44	1800		16	16	ND	21			
10/10/9				64.50	-0.52	4300		11	ND	12	ND			
01/10/9				67.06	2.56	310		4.6	ND	3.5	2.1			
04/17/9		10.42	0.00	67.06	0.00	7800		ND	4.6	300	450			
07/24/9		11.76	0.00	65.72	-1.34	3200		170	ND	22	16			
10/23/9				64.98	-0.74	3900		55	ND	19	11	4500		
01/18/9	6 77.48	11.79	0.00	65.69	0.71	2200		270	33	26	18	5500		
04/18/9	6 82.55	11.30	0.00	71.25	5.56	6000		1800	ND	100	230	48000		
07/24/9		12.17	0.00	70.38	-0.87	ND		2500	ND	ND	ND	71000		
10/24/9		12.65	0.00	69.90	-0.48	3800		660	ND	15	ND	65000		
01/28/9	7 82.55	9.50	0.00	73.05	3.15	4400		250	13	87	47	54000		
07/29/9	7 82.55	11.99	0.00	70.56	-2.49	ND	~~	3500	ND	220	ND	75000		
01/14/9	8 82.55	10.30	0.00	72.25	1.69	ND		430	ND	100	380	37000		
07/01/9		11.70	0.00	70.85	-1.40	ND		430	ND	ND	ND	45000		
06/18/9	9													Well was destroyed
MW-4	(6	Screen Inte	erval in feet	: DNA)										
04/18/9	6 82.04	9.83	0.00	72.21		ND		630	ND	ND	ND	18000		
07/24/9	6 82.04	10.47	0.00	71.57	-0.64	ND		ND	ND	ND	5.2	3900		
10/24/9	6 82.04	11.14	0.00	70.90	-0.67	ND		ND	ND	ND	ND	6300		
01/28/9	7 82.04	7.94	0.00	74.10	3.20	1200		490	ND	17	6.8	16000		
07/29/9	7 82.04	10.86	0.00	71.18	-2.92	50		1.5	0.61	0.73	0.78	15000		
01/14/9	8 82.04	8.73	0.00	73.31	2.13	ND		ND	ND	ND	ND	5200		
07/01/9	8 82.04	10.51	0.00	71.53	-1.78	ND	No ins	ND	ND	ND	ND	640		
06/18/9	9 82.04						an un							Well was destroyed

Page 4 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

Date Sampled		Depth to Water	LPH Thickness		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-5			erval in feet	t: DNA)										
04/18/9			0.00	72.15		31000		5500	1400	1700	8100	66000		
07/24/9				71.00	-1.15	32000		6400	ND	1600	6100	120000		
10/24/9				70.40	-0.60	17000		6900	ND	970	130	84000		
01/28/9	97 81.80	7.76	0.00	74.04	3.64	19000		6100	62	82	310	160000		
07/29/9	97 81.80	11.58	0.00	70.22	-3.82	ND		ND	ND	ND	ND	71000		
01/14/9	98 81.80	9.08	0.00	72.72	2.50	ND	-	3600	ND	ND	ND	80000		
07/01/9	98 81.80	11.25	0.00	70.55	-2.17	6400		2100	21	120	330	61000		
06/18/9	99 81.80													Well was destroyed
MW-6	(	Screen Into	erval in feet	t: 5.0-25.0)										
06/18/9	99 78.91	9.30	0.00	69.61		2100		21	29	ND	47	97000	71000	
01/21/0	00 78.91	9.37	0.00	69.54	-0.07	1880		143	31.2	106	196	41200	48800	
07/10/0	00 78.91	8.94	0.00	69.97	0.43	5710		869	209	301	1430	22200	19500	
01/04/0	01 78.91	9.21	0.00	69.70	-0.27	ND		ND	ND	ND	ND		9510	
07/16/0	01 78.91	9.42	0.00	69.49	-0.21	4800		200	21	150	440	29000	34000	
01/31/0	02 78.91	8.50	0.00	70.41	0.92	12000		250	92	500	1500	26000	31000	
04/11/0	02 79.67	9.08	0.00	70.59	0.18	3600		42	32	39	280	120000		
07/11/0	02 79.67	9.70	0.00	69.97	-0.62		12000	ND<100	ND<100	ND<100	ND<200		15000	
10/15/0	02 79.67	9.96	0.00	69.71	-0.26		1300	ND<10	ND<10	ND<10	ND<20		3200	
01/14/0	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	
04/16/0	03 79.67	8.21	0.00	71.46	0.10		270	ND<0.50	ND<0.50	ND<0.50	1.3		15	
07/16/0	03 79.67	9.43	0.00	70.24	-1.22		290	39	0.60	ND<0.50	15		150	
10/02/0	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	
01/07/0	04 79.67	8.08	0.00	71.59	1.84		140	2.4	ND<1.0	8.6	13	<del></del>	86	
04/02/0	04 79.67	8.63	0.00	71.04	-0.55		3200	ND<20	ND<20	ND<20	ND<40		5900	

Page 5 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

Date Sampled	TOC Elevation (feet)	Depth to Water	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)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (μg/l)	MTBE 8260B (μg/l)	Comments
MW-6						(18)	(1.6.)	(1-6-)	(1-6-)	(1-6/-)	(16-7	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	(464)	
07/29/0			0.00	69.92	-1.12		170	ND<1.0	ND<1.0	ND<1.0	ND<2.0		160	
11/24/0			0.00	70.08	0.16		80		ND<0.50		ND<1.0		45	
01/24/0	05 79.67	8.33	0.00	71.34	1.26		100	1.1	ND<0.50	0.60	1.1		40	
06/23/0	)5 79.67	8.33	0.00	71.34	0.00		230	0.52	ND<0.50	3.6	9.6		200	
09/28/0	)5 79.67	9.56	0.00	70.11	-1.23		500		ND<0.50		1.2		980	
MW-7	C	Screen Int	erval in feet	· 5 0_25 M										
06/18/9				71.22		ND		ND	ND	ND	ND	16000	13000	
01/21/0	00 79.92	9.30	0.00	70.62	-0.60	ND		ND	ND	ND	ND	12300	18200	
07/10/0	00 79.92	8.72	0.00	71.20	0.58	ND		ND	ND	ND	ND	16900	13800	
01/04/0	79.92	9.17	0.00	70.75	-0.45	ND		ND	ND	ND	0.719		37.3	
07/16/0	79.92	9.02	0.00	70.90	0.15	ND		ND	ND	ND	ND	7200	4700	
01/31/0	2 79.92	7.91	0.00	72.01	1.11	ND<50		ND<0.50	ND<0.50	ND<0.50		8900	9900	
04/11/0	2 80.67													Inaccessible
07/11/0	2 80.67													Inaccessible
10/15/0	80.67	9.81	0.00	70.86			ND<5000	ND<50	ND<50	ND<50	ND<100		12000	
01/14/0	3 80.67	7.89	0.00	72.78	1.92		ND<25000	ND<250	ND<250	ND<250	ND<500		33000	
04/16/0	3 80.67	8.04	0.00	72.63	-0.15		ND<25000	ND<250	ND<250	ND<250	ND<500		37000	
07/16/0	3 80.67	9.19	0.00	71.48	-1.15		25000	ND<250	ND<250	ND<250	ND<500		38000	
10/02/0	3 80.67	9.89	0.00	70.78	-0.70		17000	ND<100	ND<100	ND<100	ND<200		22000	
01/07/0	80.67	7.27	0.00	73.40	2.62		ND<20000	ND<200	460	ND<200	540		19000	
04/02/0	80.67	8.09	0.00	72.58	-0.82		3400	ND<20	ND<20	ND<20	ND<40		5100	
07/29/0	80.67	9.40	0.00	71.27	-1.31		7400	ND<50	ND<50	ND<50	ND<100		11000	
11/24/0	80.67	9.65	0.00	71.02	-0.25		6200	ND<50	ND<50	ND<50	ND<100		6800	
01/24/0	80.67	7.92	0.00	72.75	1.73		ND<5000	ND<0.50	ND<0.50	ND<0.50	ND<1.0		13000	

Page 6 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

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
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	
06/23/0			0.00	72.11	-0.64		8700	ND<25	ND<25	ND<25	ND<50		12000	
09/28/0	5 80.67	9.37	0.00	71.30	-0.81		1200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5700	
MW-8		Screen Into	erval in feet	t: 5.0-25.0)										
06/18/9		9.10	0.00	71.86	***	ND		ND	ND	ND	ND	290	160	
01/21/0	00 80.96	10.00	0.00	70.96	-0.90	ND		ND	ND	ND	1.09	224	221	
07/10/0	00 80.96	7.94	0.00	73.02	2.06	ND	·	ND	ND	ND	ND	234	223	
01/04/0		9.76	0.00	71.20	-1.82	3790		141	8.92	128	375		34200	
07/16/0	01 80.96	9.15	0.00	71.81	0.61	ND	***	ND	ND	ND	ND	66	70	
01/31/0	2 80.96	7.99	0.00	72.97	1.16	5900		86	ND<10	630	390	670	700	
04/11/0	2 81.71	9.00	0.00	72.71	-0.26	250		2.0	ND<0.50	38	2.2	410		
07/11/0	2 81.71	9.60	0.00	72.11	-0.60		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		120	
10/15/0	2 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	
01/14/0	81.71	8.63	0.00	73.08	1.97		ND<250	2.6	ND<2.5	18	ND<5.0		430	
04/16/0	3 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	
07/16/0	3 81.71	9.63	0.00	72.08	-0.65		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		140	
10/02/0	3 81.71	10.41	0.00	71.30	-0.78		75	ND<0.50	ND<0.50	ND<0.50	ND<1.0		78	
01/07/0	81.71	8.21	0.00	73.50	2.20		ND<5000	ND<50	ND<50	ND<50	340		3700	
04/02/0	81.71	8.51	0.00	73.20	-0.30		3000	ND<20	ND<20	ND<20	ND<40		5200	
07/29/0	81.71	9.78	0.00	71.93	-1.27		3200	ND<25	ND<25	ND<25	ND<50		5500	
11/24/0	4 81.71	10.19	0.00	71.52	-0.41		2100	ND<10	ND<10	ND<10	ND<20		2400	
01/24/0	5 81.71	8.49	0.00	73.22	1.70		ND<2500	4.0	0.52	ND<0.50	29		1800	
06/23/0	5 81.71	8.34	0.00	73.37	0.15		490	ND<0.50	ND<0.50	1.5	ND<1.0		980	
09/28/0	5 81.71	9.61	0.00	72.10	-1.27		270	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ner nee	520	

MW-9

(Screen Interval in feet: DNA)

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
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)	Ethylbenzene (µg/l)	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
1.007.0			(1001)	(1001)	(1001)	(µg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(µg/l)	(µg/l)	(µg/l)	
<b>MW-9</b> 01/31/0	continued 2 82.07		0.00	67.35		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	680	910	
04/11/0		14.85	0.00	67.22	-0.13	ND<50	ned level		ND<0.50			620		
07/11/0		15.39	0.00	66.68	-0.13		580	ND<5.0	ND<5.0	ND<0.30	ND<0.30		 580	
10/15/0		16.16		65.91	-0.77		570	ND<5.0	ND<5.0	ND<5.0	ND<10 ND<10	 	1400	
01/14/0		14.75	0.00	67.32	1.41		ND<200	ND<2.0	ND<2.0	ND<3.0	ND<10 ND<4.0		220	
04/16/0		14.51	0.00	67.56	0.24		ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10	 	860	
07/16/0		15.54	0.00	66.53	-1.03		ND<2500	ND<25	ND<25	ND<25	ND<50	 	1300	
10/02/0		16.28	0.00	65.79	-0.74		820	ND<5.0	ND<5.0	ND<5.0	ND<10		990	
01/07/0		14.65	0.00	67.42	1.63		ND<1000	ND<10	ND<10	ND<10	ND<20	in fa	1200	
04/02/0	4 82.07	15.08	0.00	66.99	-0.43		510	ND<5.0	ND<5.0	ND<5.0	ND<10		850	
07/29/0	4 82.07	15.81	0.00	66.26	-0.73		ND<1000	ND<10	ND<10	ND<10	ND<20	. <del></del>	1300	
11/24/0	4 82.07	16.25	0.00	65.82	-0.44		1100	ND<5.0	ND<5.0	ND<5.0	ND<10		1300	
01/24/0	5 82.07	14.96	0.00	67.11	1.29		ND<1000	ND<0.50		ND<0.50	ND<1.0		2300	
06/23/0	5 82.07	14.40	0.00	67.67	0.56		1500	ND<5.0	ND<5.0	ND<5.0	ND<10		2000	
09/28/0	5 82.07	15.67	0.00	66.40	-1.27		ND<2500		ND<25	ND<25	ND<50		2400	
MW-10	Ø	Screen Inte	rval in feet	• DNA)										
01/31/0		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	
04/11/0	2 74.98	7.60	0.00	67.38	0.42	ND<50					ND<0.50		-	
07/11/0	2 74.98	8.91	0.00	66.07	-1.31		ND<50			ND<0.50			1.1	
10/15/0	2 74.98	11.49	0.00	63.49	-2.58		ND<50		ND<0.50		ND<1.0		ND<2.0	
01/14/0	3 74.98	8.47	0.00	66.51	3.02				ND<0.50		ND<1.0		ND<2.0	
04/16/0	3 74.98	7.92	0.00	67.06	0.55				ND<0.50		ND<1.0		ND<2.0	
07/16/0	3 74.98	7.03	0.00	67.95	0.89				ND<0.50		ND<1.0		ND<2.0	
10/02/0	3 74.98	7.63	0.00	67.35	-0.60					ND<0.50	ND<1.0		ND<2.0	

Page 8 of 9

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 1992 Through September 2005
76 Station 1871

Date Sampled	Elevation	Depth to Water	LPH Thickness		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-10			0.00	60 <b>7</b> 6										
01/07/0		6.22	0.00	68.76	1.41		54		ND<0.50	1.3	4.5		ND<2.0	
04/02/0		7.49	0.00	67.49	-1.27		ND<50		ND<0.50		ND<1.0		1.0	
07/29/0		7.41	0.00	67.57	0.08		ND<50		ND<0.50		ND<1.0		ND<0.50	
11/24/0		7.55	0.00	67.43	-0.14		ND<50		ND<0.50		ND<1.0		3.5	
01/24/0		6.40	0.00	68.58	1.15		ND<50			ND<0.50	ND<1.0		0.71	
06/23/0		6.46	0.00	68.52	-0.06		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/28/0	5 74.98	7.52	0.00	67.46	-1.06		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-11	-		erval in feet	: DNA)										
01/31/0	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	
04/11/02	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		
07/11/02	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	
10/15/03	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	
01/14/03	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	
04/16/03	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	
07/16/03	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	
10/02/03	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	
01/07/04	4 77.31	16.20	0.00	61.11	-3.24		63	ND<0.50	ND<0.50	0.68	2.2		ND<2.0	
04/02/04	4 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	
07/29/04	4 77.31	14.39	0.00	62.92	3.62		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
11/24/04	4 77.31	16.72	0.00	60.59	-2.33		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
01/24/03	77.31	17.44	0.00	59.87	-0.72		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
06/23/05	77.31	12.37	0.00	64.94	5.07		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/28/05	77.31	16.78	0.00	60.53	-4.41		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	

Page 9 of 9

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 1871

Date Sampled	TPH-D	EDC	EDB	Post Purge DO	DO	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	ORP	рН	Ethanol 8260B	Post Purge ORP
	(µg/l)	(μg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mV)	(pH)	(µg/l)	(mV)
MW-1													
06/18/99			ND			ND	ND	ND	ND			ND	
07/16/01			ND			ND	ND	ND	ND			ND	
01/14/03	,		ND<2.0			ND<2.0	ND<100	ND<2.0	ND<2.0			ND<500	
07/16/03												ND<10000	
10/02/03												ND<25000	
01/07/04												ND<20000	
04/02/04												ND<50	
07/29/04												ND<2000	
11/24/04					3.08					-39	6.58	ND<2000	
01/24/05												ND<2000	
06/23/05					6.19					-116		ND<50000	
09/28/05				3.45								ND<1000	-94
MW-4													
04/18/96	110												
07/24/96									w se				
10/24/96	ND												
01/28/97	210												
07/29/97	ND												
01/14/98	ND												
07/01/98	ND			<b></b>									
MW-6													
06/18/99		ND	ND			ND	ND	ND	ND			ND	
07/16/01		ND	ND			ND	ND	ND	ND			ND	
07/11/02		ND<100	ND<100		NO. 100	ND<100	ND<1000	ND<200	ND<100			ND<5000	
01/14/03		ND<2.0	ND<2.0			ND<2.0	ND<100	ND<2.0	ND<2.0			ND<500	
07/16/03												ND<500	

Page 1 of 4

1871

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 1871

Date Sampled	TPH-D	EDC	EDB	Post Purge DO	DO	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	ORP	pН	Ethanol 8260B	Post Purge ORP	
	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mV)	(pH)	(µg/l)	(mV)	
	continued													
10/02/03												ND<1000		
01/07/04												ND<1000		
04/02/04												ND<2000	<del></del> .	
07/29/04												ND<100		
11/24/04					2.81					-12	6.99	ND<50		
01/24/05						No. 144						ND<50		
06/23/05					1.80					72		ND<1000		
09/28/05				2.63								ND<1000	-80	
MW-7														
06/18/99		ND	ND			ND	ND	ND	ND			ND		
07/16/01		ND	ND			ND	ND	ND	ND			ND		
01/14/03		ND<1000	ND<1000			ND<1000	ND<50000	ND<1000	ND<1000			ND<250000		
07/16/03												ND<250000		
10/02/03												ND<100000		
01/07/04												ND<200000		
04/02/04												ND<2000		
07/29/04												ND<5000		
11/24/04					1.99					-24	6.60	ND<5000		
01/24/05												ND<5000		
06/23/05					1.54					-38		ND<50000		
09/28/05				3.45								ND<1000	-85	
MW-8														
06/18/99		ND	ND			ND	ND	ND	ND			ND	<del></del>	
07/16/01		ND	ND			ND	ND	ND	ND			ND		
01/14/03		ND<10	ND<10			ND<10	ND<500	ND<10	ND<10	<u></u>		ND<2500		
07/16/03												ND<500		
J., _ J, OD									<del></del>			14D-200		

Page 2 of 4

1871

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 1871

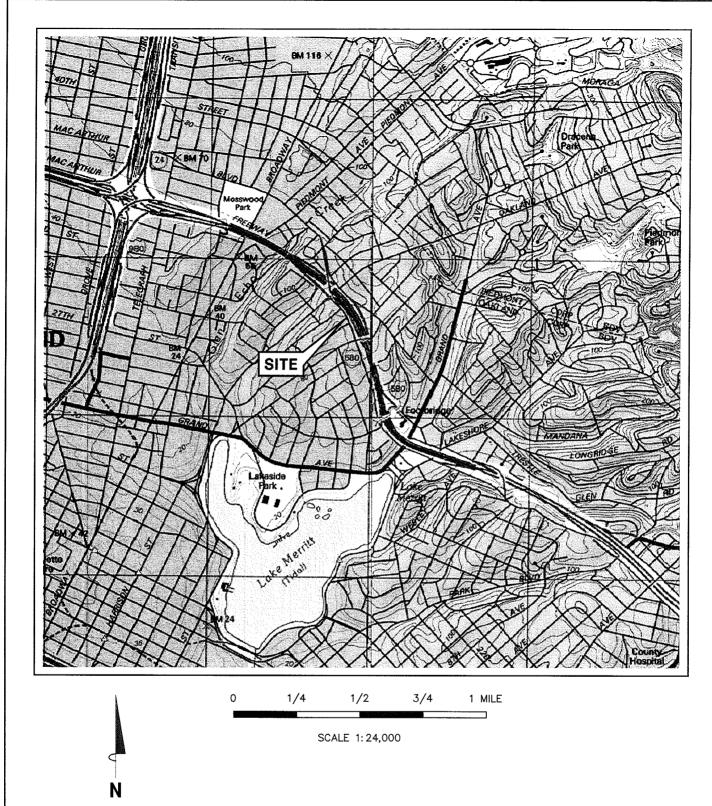
Date Sampled	TPH-D	EDC	EDB	Post Purge DO	DO	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	ORP	рН	Ethanol 8260B	Post Purge ORP
	(µg/l)	(µg/l)	(μg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mV)	(pH)	(µg/l)	(mV)
MW-8													
10/02/03												ND<500	
01/07/04												ND<50000	
04/02/04						~~						ND<2000	
07/29/04												ND<2500	
11/24/04					2.71					-36	6.67	ND<1000	
01/24/05												ND<2500	
06/23/05					1.97					52		ND<1000	
09/28/05				2.12								ND<1000	-26
MW-9													
01/31/02		ND<7.1	ND<7.1			ND<7.1	ND<140	ND<7.1	ND<7.1			ND<3600	
01/14/03		ND<8.0	ND<8.0			ND<8.0	ND<400	ND<8.0	ND<8.0			ND<2000	
07/16/03												ND<25000	
10/02/03												ND<5000	
01/07/04				~=								ND<10000	
04/02/04												ND<500	
07/29/04												ND<1000	
11/24/04					3.24					-67	6.47	ND<500	
01/24/05												ND<1000	
06/23/05					1.56					-142		ND<10000	
09/28/05				2.51								ND<50000	-119
MW-10													
01/31/02		ND<1.0	ND<1.0			ND<1.0	ND<20	ND<1.0	ND<1.0			ND<500	
01/14/03		ND<2.0	ND<2.0			ND<2.0	ND<100	ND<2.0	ND<2.0			ND<500	
07/16/03					~-							ND<500	
10/02/03												ND<500	<u></u>
01/07/04												ND<500	
												110 500	

Page 3 of 4

Table 3
ADDITIONAL ANALYTICAL RESULTS
76 Station 1871

Date Sampled	TPH-D	EDC	EDB	Post Purge DO	DO	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	ORP	pН	Ethanol 8260B	Post Purge ORP
	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mV)	(pH)	(µg/l)	(mV)
MW-10	continued												
04/02/04												ND<50	
07/29/04												ND<50	
11/24/04					2.59					-29	6.89	ND<50	
01/24/05												ND<50	
06/23/05					1.63					42		ND<1000	
09/28/05				6.95								ND<1000	-64
MW-11													
01/31/02		ND<1.0	ND<1.0			ND<1.0	ND<20	ND<1.0	ND<1.0			ND<500	
01/14/03		ND<2.0	ND<2.0			ND<2.0	ND<100	ND<2.0	ND<2.0			ND<500	
07/16/03												ND<500	<del></del>
10/02/03		177 No.										ND<500	
01/07/04												ND<500	<del></del>
04/02/04												ND<50	<del></del>
07/29/04									<b></b>			ND<50	
11/24/04					3.85					143	6.75	ND<50	
01/24/05												ND<50	<del></del>
06/23/05					2.13					80		ND<1000	
09/28/05				4.97								ND<1000	-1

# **FIGURES**



SOURCE:

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

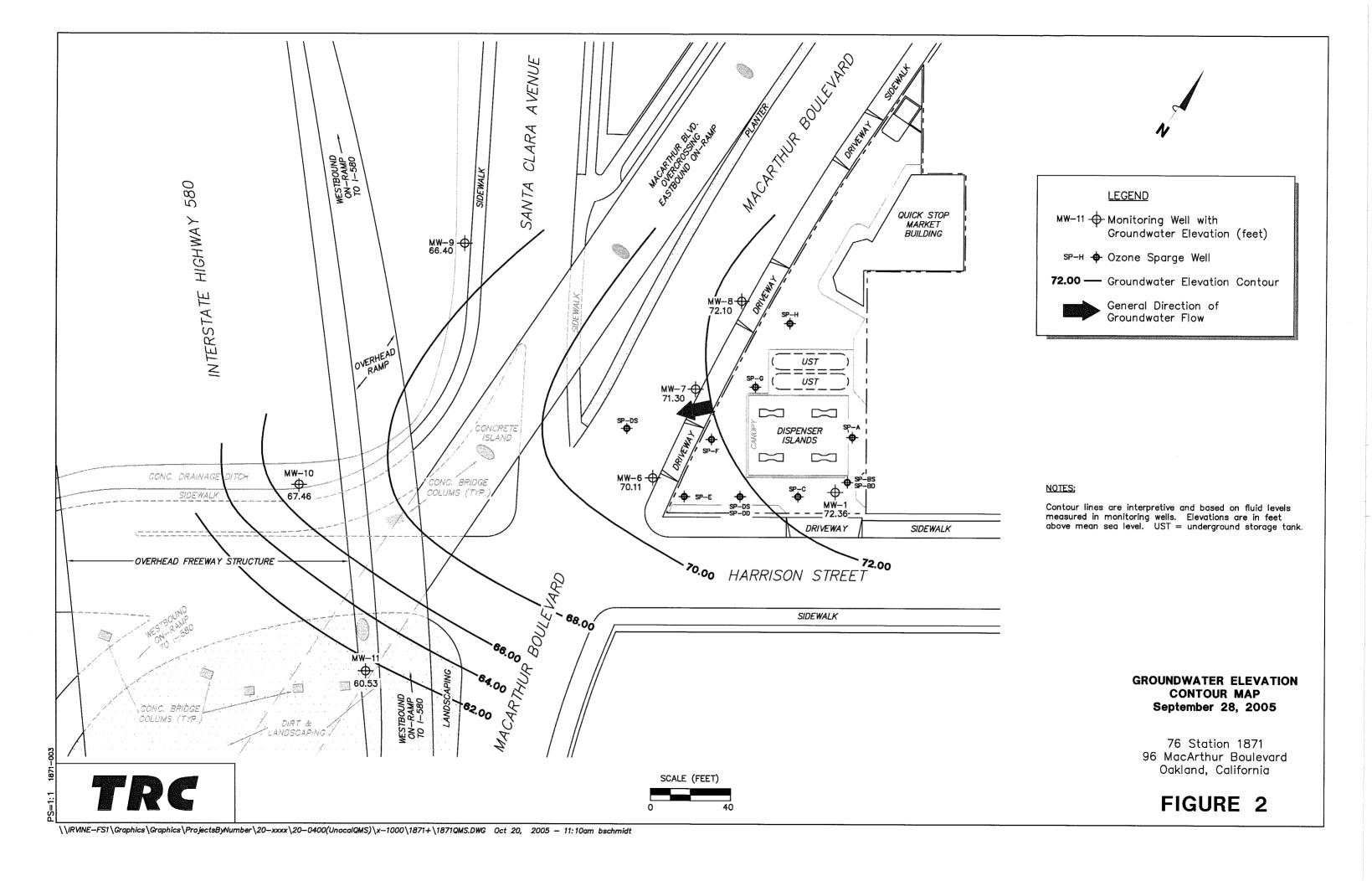


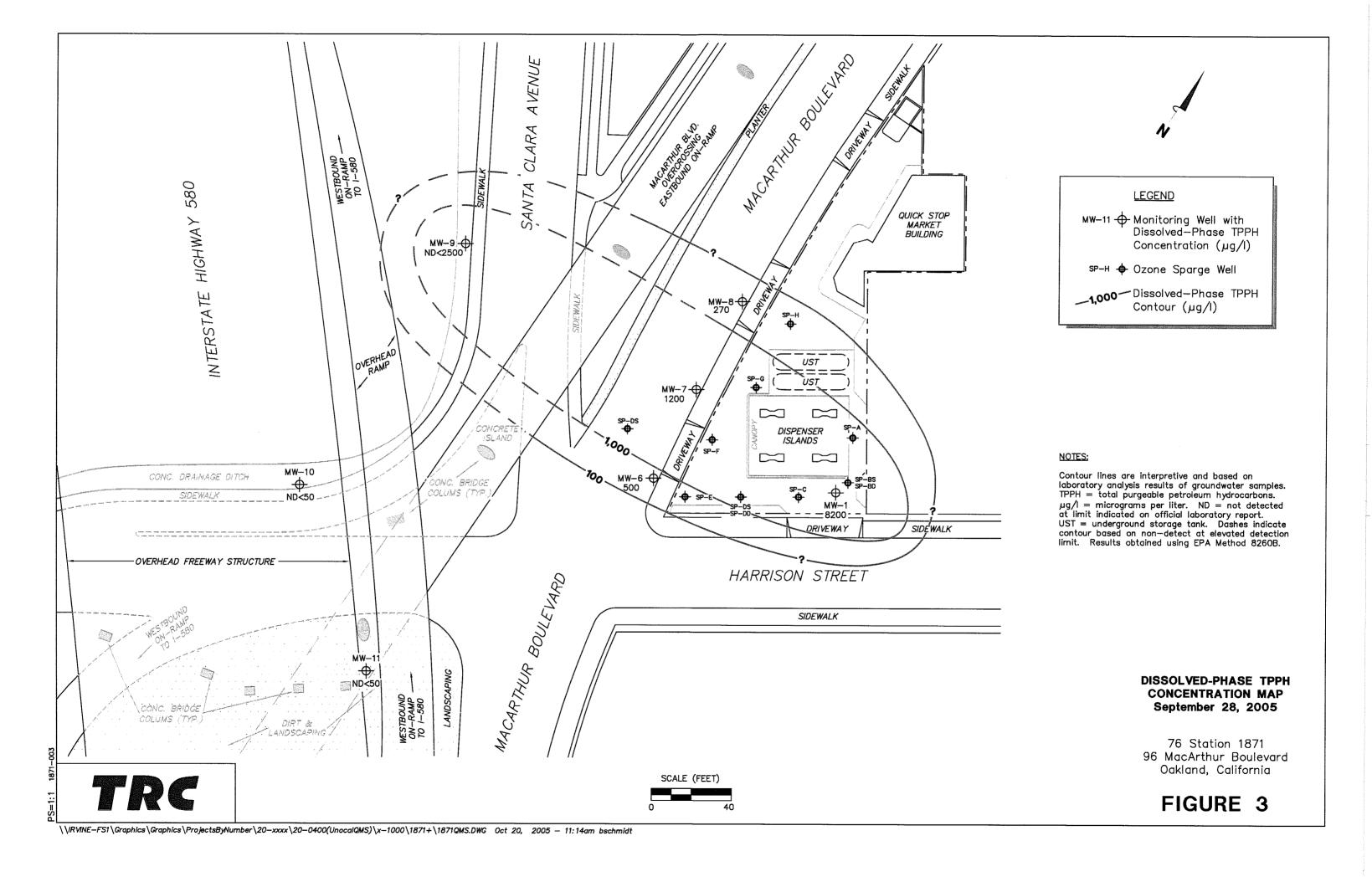


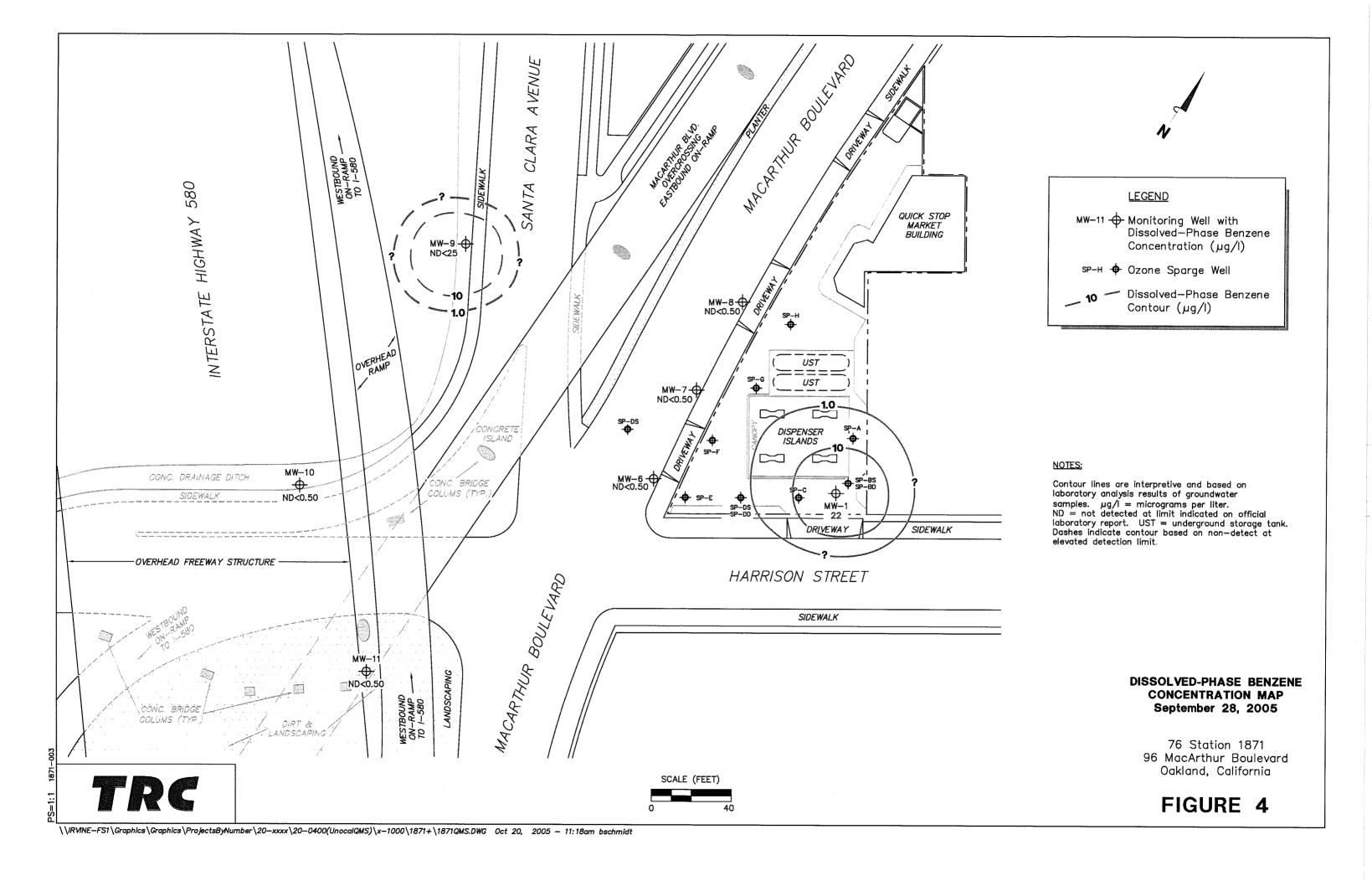
#### VICINITY MAP

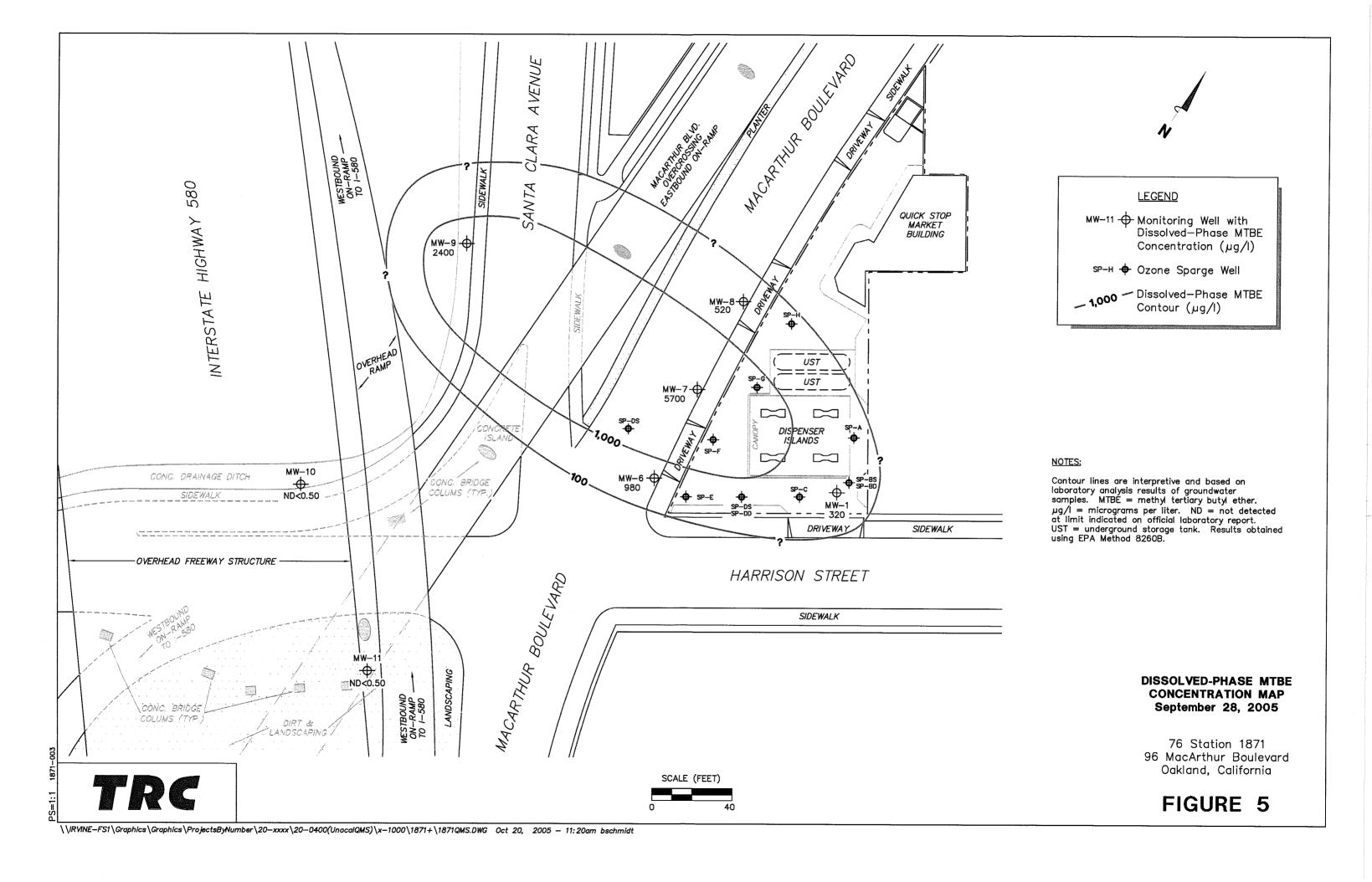
76 Station 1871 96 MacArthur Boulevard Oakland, California-

### FIGURE 1



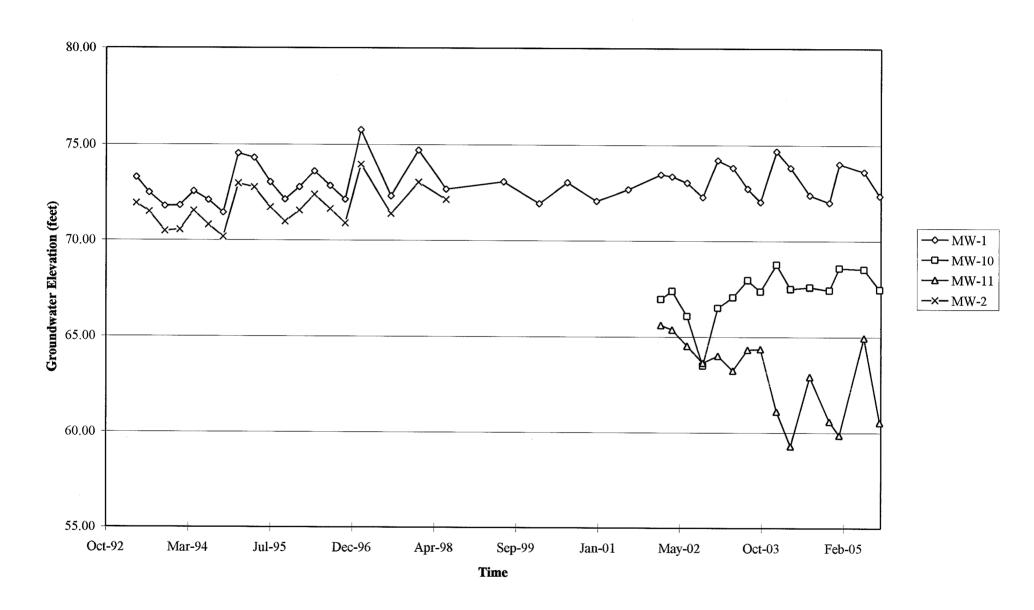




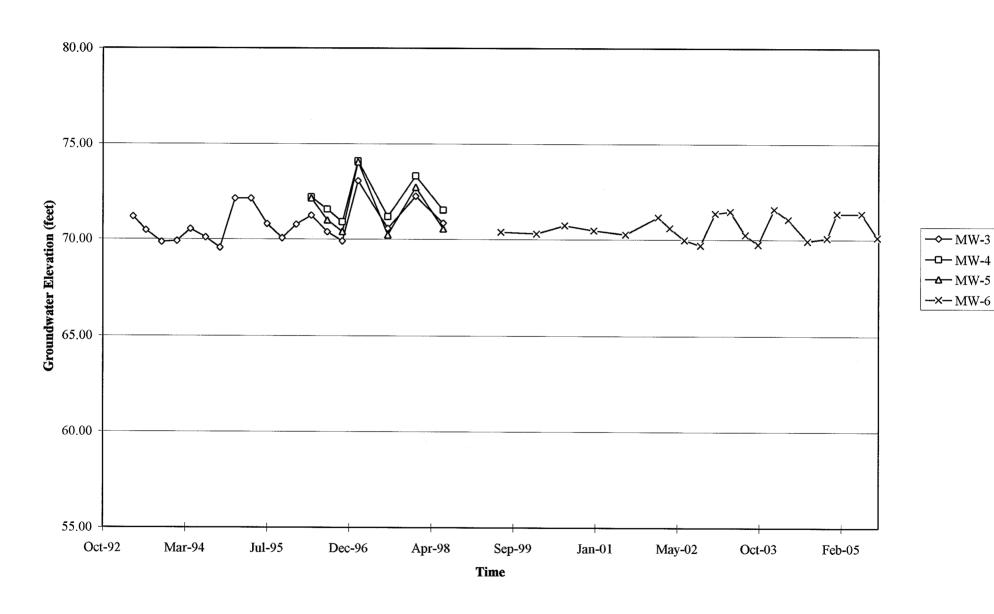


# **GRAPHS**

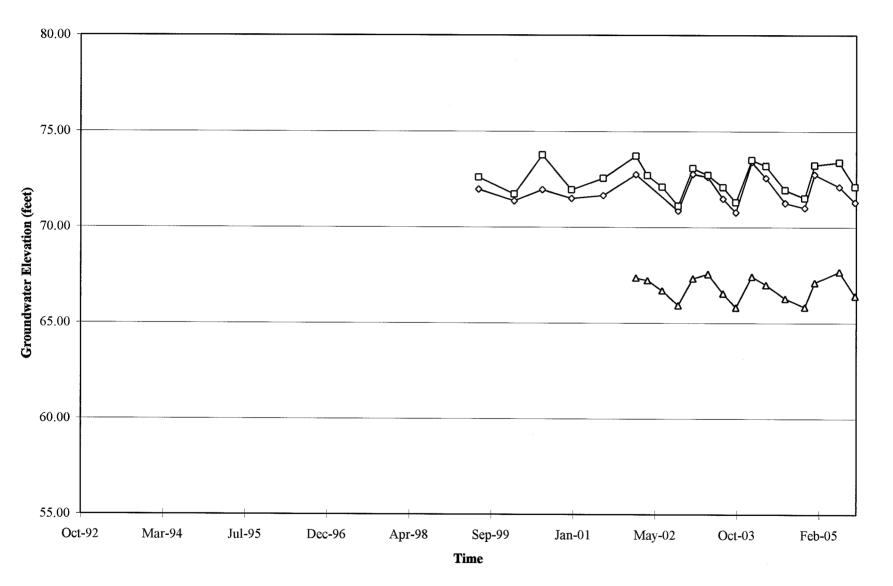
## Groundwater Elevations vs. Time 76 Station 1871



## Groundwater Elevations vs. Time 76 Station 1871



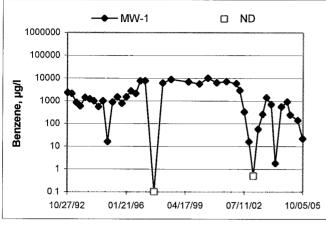
## Groundwater Elevations vs. Time 76 Station 1871

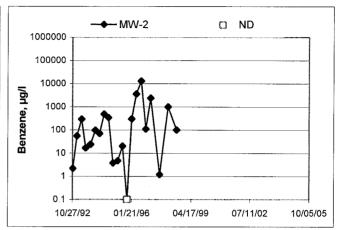


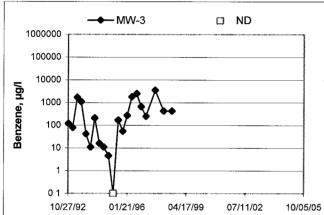


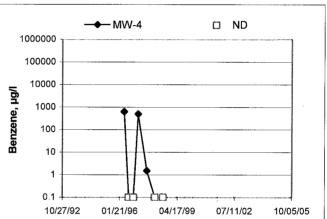
#### **Benzene Concentrations vs Time**

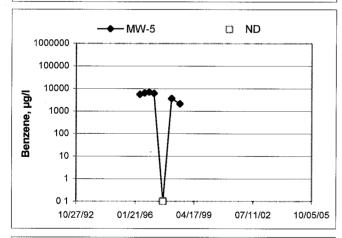
76 Station 1871

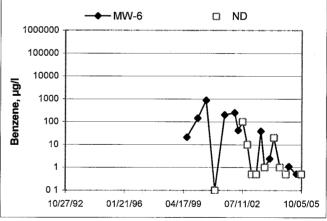


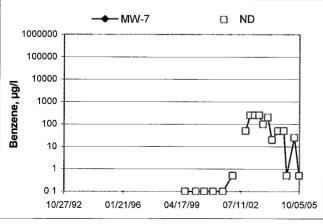


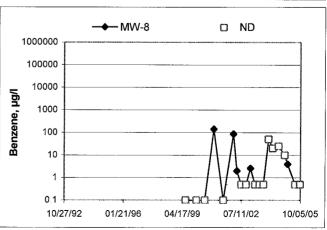






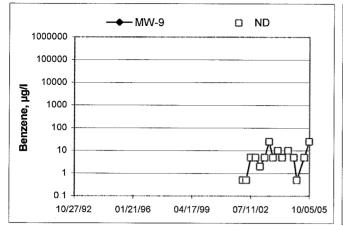


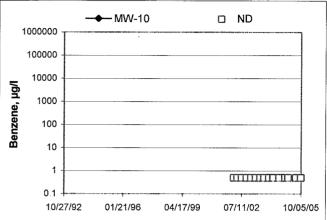


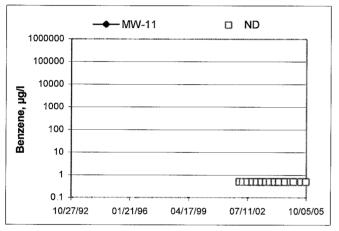


#### **Benzene Concentrations vs Time**

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 (surveyo rs 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 measurements 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, sample time, and the sampler's 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 the 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 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 wells, 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.

1/5/04 version

# FIELD MONITORING DATA SHEET

Technician: Melissa	Job #/Task #: 4105000 //FA20	Date: <u>69-18-05</u>
Site # \871	Project Manager A. Collins	Page of _ l

				Depth	Depth	Product		
•••	Time	тос	Total Depth	to Water	to Product	Thickness (feet)	Time Sampled	Misc. Well Notes
Well#	Gauged	100	30.0G					2"
	0512							2"
	0518	V	19.97	7,52			0847 0800	
MW-B	0524	レ	24.29					ン"
MW-9	0531		1980	15.67	*			
MW-7	0808		<u> 2431</u>	9.37	parame.			2"
	0536		24.51				0748	2" 2"
MW-1	0539	/	24.09	14.63			0905	
				-				
					<u> </u>			Land to the state of the state
				***************************************				
FIELD DATA	A CÓMPLI	ETE	QAJQC		ÇØC	W	ELL BOX Ø	ONDITION SHEETS
	1					4904-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	<del></del>	
WTT CERT	FICATE		MANIFE	ST	DRUM IN	ENTORY	TRAI	FFIQ CONTROL
AAII OFIII	. IORIL	, na <u>y - , na , na - , na                     </u>	-412 21 431 500					

## GROUNDWATER SAMPLING FIELD NOTES

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature	рΗ	Furbidity GFR	D.O.
0624		(ieel)	2	276 ms	16.9	6.93	-4	4.59
Jer			4	2.80m		6.96	-2	4.80
	10027		6	2.82mg	ł -	6.99		4.97
Stat	c at Time Sar	moled	T	otal Gallons Pu	rged		Time Samp	
Olavi	18.09			G			083	<u> 35</u>
Comments:								

Well No.: MW-10	Purge Method: D;e-
Depth to Water (feet): 7.57	Depth to Product (feet):
Total Depth (feet): 19.97	LPH & Water Recovered (gallons):
Water Column (feet): 12-45	Casing Diameter (Inches): 2"
80% Recharge Depth (leet): (O - O )	1 Well Volume (gallons): 2

Time	Time	- Depth	Volume	Conduc-	Temperature	.		•		
Start	Stop	To Water	Purged	tivity		рΗ	<b>EULDIGITS</b>	D.O.		
		(feet)	(gallons)	(uS/cm)	(F,O)		990			
3632			2	618	16-8	7,95	766	2.37		
			Ч	642	(6.6	7.07	-61.	4.92		
	0633		6	629	167	7.26	64	6.95		
Sta	L itic at Time Sa	mpled	- T	otal Gallons Pu	urged	Time Sampled				
	13 98	1		6		accounts tags accounts	02	47		
Commenter	7.1	0	) -a   .r.		2hrs.					
Comments:		not f	<u>echar</u>	, =				NAME OF TAXABLE PARTY.		
						· · · · · · · · · · · · · · · · · · ·				
		_								

# GROUNDWATER SAMPLING FIELD NOTES

Technician: Melissa Date: 09-28~5 Project No.: 4(65000) 1871 Site:\_\_\_\_ Pia Purge Method Well No: MW-8 Depth to Product (feet): Depth to Water (feet): 9.61 LPH & Water Recovered (gallons): Total Depth (feet): 24.27 Casing Diameter (Inches): 2" Water Column (feel): 14.66 1 Well Volume (gallons): Z 80% Recharge Depth (feet): 12.54

Time Start	Time Stop	Depth To Water	Volume Purged	Conduc- tivity	Temperature	рΗ	Turbidity	<b>D.</b> O.		
		(feet)	(gallons)	(uS/cm)	(F(O)	<b></b>	916			
0615			2	673	20.4	6.61	-40	1,93		
<u> </u>			Υ (	680	20.0	664	-29	2.04		
and a series with the series of the series and the series of the series	0616		6	6.79	19.7	668	-26	2.12		
Stat	ic at Time San	npled	T	otal Gallons Pu	ırged	<u></u>	Time Samp	led		
	9.67			6		0300				
Comments:		-								
						/				

Well No : Mw-9	Purge Method HS
Depth to Water (feet): 15.67	Depth to Product (feet):
Total Depth (feet): 19.80	LPH & Water Recovered (gallons):
Water Column (feet): 4.12	Casing Diameter (Inches): 2
80% Recharge Depth (feet): 6 भव	1 Well Volume (gallons): 2 2
· · · · · · · · · · · · · · · · · · ·	

ನ್ನು	Time	-Depth	Volume	Conduc-	Temperature	nu l	Turbidity	D.O.
Start	Stop	To Water	Purged	tivity		рΗ	•	0.0.
	10 10 10	(feet)	(gallons)	(uS/cm)	(F.Q)		- OLB	
5643			,5	697	17.0	661	-94	1.67
The Street and the Street Stre	Ţ,		i	649	17.3	662	-105.	2.08
	0645		1.5	673	17.60	6.63	-119	251
Sta	tic at Time San	npled	. Т	otal Gallons Pu	ırged		Time Samp	led
management reductions arrived them which commissioned beautiful to the commission of	15.68			1.5			085	5
Comments:								
			· :				r	

GROUNDWATER SAMPLING FIELD NOTES Technician: Melissa Date: 09-28-95 Project No.: 41050001 Site: 1871 Purge Method Dice Mw-6 Well No.: Depth to Product (feet): Depth to Water (feet): 9.56 LPH & Water Recovered (gallons): Total Depth (feet): 24.51 Casing Diameter (Inches): 2" Water Column (feet): 14.95 1 Well Volume (gallons): 2 80% Recharge Depth (feet): 12.55 Conduc-Temperature Volume Depth Time Time D.O. Ludvidity pΗ tivity To Water Purged Start Stop 0 CP (F,(C) (uS/cm) (feet) (gallons) 191 797 0606 2.50 -81 20-1 761 665 U -90 787 20.2 6.77 0603 Time Sampled Total Gallons Purged Static at Time Sampled -DE-15 6 9.67 Comments: Purge Method. Dea Well No : MW-1 Depth to Water (feet): 14.63 Depth to Product (feet):\_\_\_\_ LPH & Water Recovered (gallons): Total Depth (feet): 94.09 Casing Diameter (Inches): 4 Water Column (feet): 9.46 1 Well Volume (gallons): 80% Recharge Depth (feet): 16.52 Volume Conduc-Temperature -Depth Time Time D.O. **Turbidity** Purged tivity рΗ Start Stop To Water 0CP (F.Q) (uS/cm) (gallons) (feet) 4.73 198 0656 7.39 20.0 673 7.20 0700 12 13 9000 Time Sampled Total Gallons Purged Static at Time Sampled 0905 comments: Went Dry at 13 gallons e Did not Recharge 45 mins Stenter 19.83 Didn't Deshurge in 2hrs.

#### GROUNDWATER SAMPLING FIELD NOTES

Technician: Welissa Date: 09-28-05 Site: 1871 Project No: 4/05'0001 Well No : Mur-7 Depth to Product (feet): Depth to Water (feet): 9.37 LPH & Water Recovered (gallons): Total Depth (feet): 24-31 Casing Diameter (Inches): 2" Water Column (feet):\_\_\_\_ 1 Well Volume (gallons): 2 80% Recharge Depth (feet): 12-35 Temperature Conduc-Volume Depth Time Time D.O. Turbidity tivity рH Purged Start Stop To Water 018 (F,Q) (uS/cm) (gallons) (feet) 200 0816 6.75 678 806 19.8 0817 Time Sampled Total Gallons Purged Static at Time Sampled 6910 10 17 Comments: Well No.: Purge Method:\_\_\_\_\_ Depth to Product (feet):\_\_\_\_\_ Depth to Water (feet):\_\_\_\_\_ LPH & Water Recovered (gallons):\_\_\_\_\_ Total Depth (feet): Water Column (feet) Casing Diameter (Inches): 1 Well Volume (gallons): 80% Recharge Depth (feet):\_\_\_\_\_ Time Time -Depth Volume Conduc-Temperature D.O. Turbidity Start tivity pН Stop To Water Purged (feet) (gallons) (uS/cm) (F,C) 1021 Time Sampled Total Gallons Purged Static at Time Sampled Comments:



Date of Report: 10/13/2005

Anju Farfan

TRC Alton Geoscience 21 Technology Drive Irvine, CA 92618-2302

RE: 1871

BC Lab Number: 0509654

Enclosed are the results of analyses for samples received by the laboratory on 09/28/05 22:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Surratt

Client Service Rep

**Authorized Signature** 

Project Number: [none]
Project Manager: Anju Farfan

**Reported:** 10/13/05 08:55

# **Laboratory / Client Sample Cross Reference**

Laboratory	Client Sample Informat	ion		
0509654-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-11 MW-11 Melissa of TRCI	Receive Date: 09/28/05 22:30 Sampling Date: 09/28/05 08:35 Sample Depth: Sample Matrix: Water	Delivery Work Order (LabW: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0509654-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-10 MW-10 Melissa of TRCI	Receive Date: 09/28/05 22:30 Sampling Date: 09/28/05 08:47 Sample Depth: Sample Matrix: Water	Delivery Work Order (LabW: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0509654-03	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-8 MW-8 Melissa of TRCI	Receive Date: 09/28/05 22:30 Sampling Date: 09/28/05 08:00 Sample Depth: Sample Matrix: Water	Delivery Work Order (LabW: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0509654-04	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-9 MW-9 Melissa of TRCI	Receive Date: 09/28/05 22:30 Sampling Date: 09/28/05 08:55 Sample Depth: Sample Matrix: Water	Delivery Work Order (LabW: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0509654-05	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-7 MW-7 Melissa of TRCI	Receive Date: 09/28/05 22:30 Sampling Date: 09/28/05 09:10 Sample Depth: Sample Matrix: Water	Delivery Work Order (LabW: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:

Project: 1871

Project Number: [none]
Project Manager: Anju Farfan

Reported: 10/13/05 08:55

### **Laboratory / Client Sample Cross Reference**

Laboratory	Client Sample Information										
0509654-06	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-6 MW-6 Melissa of TRCI	Sampling Date: 09/28/05 07:48 Glob Sample Depth: Mate Sample Matrix: Water Sam	very Work Order (LabW: pal ID: T0600101493 rix: W nle QC Type (SACode): CS ler ID:							
0509654-07	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 1871 MW-1 MW-1 Melissa of TRCI	Sampling Date: 09/28/05 09:05 Glob Sample Depth: Mate Sample Matrix: Water Sam	very Work Order (LabW: pal ID: T0600101493 rix: W nle QC Type (SACode): CS ler ID:							

Project: 1871

Project Number: [none]
Project Manager: Anju Farfan

Reported: 10/13/05 08:55

BCL Sample ID: 0	)509654-01	Client Samp	ole Name	e: 1871, MW-1	1, MW-11, 9/	28/2005	8:35:00AM, N	/lelissa					
						Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MD	L Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
Ethylbenzene		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
Toluene		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
Total Xylenes		ND	ug/L	1.0	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
Ethanol		ND	ug/L	1000	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
Total Purgeable Petroleu Hydrocarbons	ım	ND	ug/L	50	EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	ND	
1,2-Dichloroethane-d4 (S	Surrogate)	104	%	76 - 114 (LCL - U	CL) EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361		
Toluene-d8 (Surrogate)		103	%	88 - 110 (LCL - U	CL) EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361	···	
4-Bromofluorobenzene (	Surrogate)	100	%	86 - 115 (LCL - U	CL) EPA-8260	10/06/05	10/06/05 18:27	SDU	MS-V12	1	BOJ0361		

Project: 1871

Project Number: [none]
Project Manager: Anju Farfan

Reported: 10/13/05 08:55

BCL Sample ID:	0509654-02	Client Sample Name:		: 1871, MW-10	1871, MW-10, MW-10, 9/28/2005		8:47:00AM, N	/lelissa					
						Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MDI	_ Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
Ethylbenzene		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
Toluene		ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
Total Xylenes		ND	ug/L	1.0	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
Ethanol		ND	ug/L	1000	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
Total Purgeable Petrole Hydrocarbons	eum	ND	ug/L	50	EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361	ND	
1,2-Dichloroethane-d4	(Surrogate)	104	%	76 - 114 (LCL - UC	L) EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361		
Toluene-d8 (Surrogate)		103	%	88 - 110 (LCL - UC	L) EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361		
4-Bromofluorobenzene	(Surrogate)	99.9	%	86 - 115 (LCL - UC	L) EPA-8260	10/06/05	10/06/05 18:50	SDU	MS-V12	1	BOJ0361		1000 1000 1000

Project: 1871
Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/13/05 08:55

<b>BCL Sample ID: </b> 0509654-03	Client Sam	ole Name	e: 1871, MW-	-8, M	W-8, 9/28/	2005 8:	00:00AM, Mel	issa					<del>*************************************</del>
						Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL M	IDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.50		EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361	ND	
Ethylbenzene	ND	ug/L	0.50		EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361	ND	
Methyl t-butyl ether	520	ug/L	5.0		EPA-8260	10/06/05	10/07/05 18:20	SDU	MS-V12	10	BOJ0361	ND	A01
Toluene	ND	ug/L	0.50		EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361	ND	
Total Xylenes	ND	ug/L	1.0		EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361	ND	
Ethanol	ND	ug/L	1000		EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361	ND	
Total Purgeable Petroleum Hydrocarbons	270	ug/L	50		EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361	ND	A53
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	76 - 114 (LCL - I	UCL)	EPA-8260	10/06/05	10/07/05 18:20	SDU	MS-V12	10	BOJ0361		
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - I	UCL)	EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361		
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - I	UCL)	EPA-8260	10/06/05	10/07/05 18:20	SDU	MS-V12	10	BOJ0361		
Toluene-d8 (Surrogate)	104	%	88 - 110 (LCL - I	UCL)	EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361		
4-Bromofluorobenzene (Surrogate)	99.2	%	86 - 115 (LCL - I	UCL)	EPA-8260	10/06/05	10/06/05 19:12	SDU	MS-V12	1	BOJ0361		
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - I	UCL)	EPA-8260	10/06/05	10/07/05 18:20	SDU	MS-V12	10	BOJ0361		

Project: 1871

Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/13/05 08:55

BCL Sample ID:	0509654-04	Client Sam	ole Name	e: 1871, MW-9,	MW-9, 9/28	/2005 8	:55:00AM, Me	issa					
						Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	25	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01
Ethylbenzene		ND	ug/L	25	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01
Methyl t-butyl ether		2400	ug/L	25	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01
Toluene		ND	ug/L	25	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01
Total Xylenes		ND	ug/L	50	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01
Ethanol		ND	ug/L	50000	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01
Total Purgeable Petrole Hydrocarbons	um	ND	ug/L	2500	EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361	ND	A01, A53
1,2-Dichloroethane-d4 (	Surrogate)	104	%	76 - 114 (LCL - UCL	.) EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361		
Toluene-d8 (Surrogate)		105	%	88 - 110 (LCL - UCL	.) EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361		
4-Bromofluorobenzene	(Surrogate)	99.9	%	86 - 115 (LCL - UCL	.) EPA-8260	10/06/05	10/07/05 06:50	SDU	MS-V12	50	BOJ0361		· · · · · · · · · · · · · · · · · · ·

Project: 1871
Project Number: [none]

Project Manager: Anju Farfan

# **Volatile Organic Analysis (EPA Method 8260)**

509654-05	Client Sam <sub>i</sub>	ole Nam	<b>e:</b> 1871, M	IW-7, M	W-7, 9/28/	<b>/</b> 2005 9:	:10:00AM, Mel	issa					
						Prep	Run		Instru-		QC	MB	Lab
	Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
	ND	ug/L	0.50		EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361	ND	
	ND	ug/L	0.50		EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361	ND	
	5700	ug/L	50		EPA-8260	10/06/05	10/09/05 18:00	SDU	MS-V12	100	BOJ0361	ND	A01
	ND	ug/L	0.50		EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361	ND	
	ND	ug/L	1.0		EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361	ND	
	ND	ug/L	1000		EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361	ND	
n	1200	ug/L	50		EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361	ND	A53
ırrogate)	109	%	76 - 114 (LCI	L - UCL)	EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361		
ırrogate)	94.8	%	76 - 114 (LCI	L - UCL)	EPA-8260	10/06/05	10/09/05 18:00	SDU	MS-V12	100	BOJ0361		
	102	%	88 - 110 (LCI	L - UCL)	EPA-8260	10/06/05	10/09/05 18:00	SDU	MS-V12	100	BOJ0361		
	105	%	88 - 110 (LCI	L - UCL)	EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361		**************************************
urrogate)	100	%	86 - 115 (LCI	L - UCL)	EPA-8260	10/06/05	10/06/05 19:35	SDU	MS-V12	1	BOJ0361		
urrogate)	99.2	%	86 - 115 (LCI	L - UCL)	EPA-8260	10/06/05	10/09/05 18:00	SDU	MS-V12	100	BOJ0361		
	rrogate) rrogate) urrogate)	Result   ND   ND   S700   ND   ND   ND   ND   ND   ND   1200   Trogate)   109   Trogate)   94.8   102   105   Urrogate)   100   100   Trogate)   Trogate)   100   Trogate)   Trog	Result         Units           ND         ug/L           ND         ug/L           5700         ug/L           ND         ug/L           ND         ug/L           ND         ug/L           1200         ug/L           rrogate)         109         %           rrogate)         94.8         %           102         %           105         %           urrogate)         100         %	Result         Units         PQL           ND         ug/L         0.50           ND         ug/L         0.50           5700         ug/L         50           ND         ug/L         0.50           ND         ug/L         1.0           ND         ug/L         1000           1200         ug/L         50           109         %         76 - 114 (LC           102         %         88 - 110 (LC           105         %         88 - 110 (LC           urrogate)         100         %         86 - 115 (LC	Result         Units         PQL         MDL           ND         ug/L         0.50           ND         ug/L         0.50           5700         ug/L         50           ND         ug/L         0.50           ND         ug/L         1.0           ND         ug/L         1000           1200         ug/L         50           102         %         76 - 114         (LCL - UCL)           102         %         88 - 110         (LCL - UCL)           105         %         88 - 110         (LCL - UCL)           urrogate)         100         %         86 - 115         (LCL - UCL)	Result         Units         PQL         MDL         Method           ND         ug/L         0.50         EPA-8260           ND         ug/L         0.50         EPA-8260           5700         ug/L         50         EPA-8260           ND         ug/L         0.50         EPA-8260           ND         ug/L         1.0         EPA-8260           ND         ug/L         1000         EPA-8260           ND         ug/L         50         EPA-8260           1200         ug/L         50         EPA-8260           1200         ug/L         50         EPA-8260           102         %         76 - 114 (LCL - UCL)         EPA-8260           102         %         88 - 110 (LCL - UCL)         EPA-8260           105         %         88 - 110 (LCL - UCL)         EPA-8260           urrogate)         100         %         86 - 115 (LCL - UCL)         EPA-8260	Result         Units         PQL         MDL         Method         Prep Date           ND         ug/L         0.50         EPA-8260         10/06/05           ND         ug/L         0.50         EPA-8260         10/06/05           5700         ug/L         50         EPA-8260         10/06/05           ND         ug/L         0.50         EPA-8260         10/06/05           ND         ug/L         1.0         EPA-8260         10/06/05           ND         ug/L         1000         EPA-8260         10/06/05           1200         ug/L         50         EPA-8260         10/06/05           17rogate)         109         %         76 - 114         (LCL - UCL)         EPA-8260         10/06/05           102         %         88 - 110         (LCL - UCL)         EPA-8260         10/06/05           105         %         88 - 110         (LCL - UCL)         EPA-8260         10/06/05           urrogate)         100         %         86 - 115         (LCL - UCL)         EPA-8260         10/06/05	Result         Units         PQL         MDL         Method         Prep Date         Run Date/Time           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35           5700         ug/L         50         EPA-8260         10/06/05         10/09/05         18:00           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35           ND         ug/L         1.0         EPA-8260         10/06/05         10/06/05         19:35           ND         ug/L         1000         EPA-8260         10/06/05         10/06/05         19:35           1200         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35           170gate)         109         % 76 - 114         (LCL - UCL)         EPA-8260         10/06/05         10/06/05         19:35           102         % 88 - 110         (LCL - UCL)         EPA-8260         10/06/05         10/09/05         18:00           105         % 88 - 110         (LCL - UCL)         EPA-8260         10/06/05	Result         Units         PQL         MDL         Method         Prep Date         Run Date/Time         Analyst           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU           5700         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU           ND         ug/L         1.0         EPA-8260         10/06/05         10/06/05         19:35         SDU           ND         ug/L         1000         EPA-8260         10/06/05         10/06/05         19:35         SDU           100         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU           100         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU           100         %         76 - 114         (LCL - UCL)         EPA-8260         10/06/05         10/06/05 <t< td=""><td>Result         Units         PQL         MDL         Method         Date Date/Time Date/Time         Analyst Ment ID           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           5700         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         1.0         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         100         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           1200         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           170gate)         109         76 - 114         (LCL - UCL)         EPA-8260         10/06/05         10/06/05         19:35         SDU</td><td>  ND</td><td>  ND</td><td>  ND</td></t<>	Result         Units         PQL         MDL         Method         Date Date/Time Date/Time         Analyst Ment ID           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           5700         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         0.50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         1.0         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           ND         ug/L         100         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           1200         ug/L         50         EPA-8260         10/06/05         10/06/05         19:35         SDU         MS-V12           170gate)         109         76 - 114         (LCL - UCL)         EPA-8260         10/06/05         10/06/05         19:35         SDU	ND	ND	ND

Reported: 10/13/05 08:55

Project: 1871
Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/13/05 08:55

BCL Sample ID: 0509654-06	Client Sam	ple Name	e: 1871, MW-6, N	/IW-6, 9/28	/2005 7	:48:00AM, Mel	issa					
				M***- 14	Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361	ND	<u></u>
Ethylbenzene	ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361	ND	
Methyl t-butyl ether	980	ug/L	25	EPA-8260	10/06/05	10/07/05 15:42	SDU	MS-V12	50	BOJ0361	ND	A01
Toluene	ND	ug/L	0.50	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361	ND	
Total Xylenes	1.2	ug/L	1.0	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361	ND	
Ethanol	ND	ug/L	1000	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361	ND	
Total Purgeable Petroleum Hydrocarbons	500	ug/L	50	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361	ND	POTENTIAL TO THE STREET, AND
1,2-Dichloroethane-d4 (Surrogate)	109	%	76 - 114 (LCL - UCL)	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361		
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	76 - 114 (LCL - UCL)	EPA-8260	10/06/05	10/07/05 15:42	SDU	MS-V12	50	BOJ0361		
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260	10/06/05	10/07/05 15:42	SDU	MS-V12	50	BOJ0361		
Toluene-d8 (Surrogate)	105	%	88 - 110 (LCL - UCL)	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361		
4-Bromofluorobenzene (Surrogate)	104	%	86 - 115 (LCL - UCL)	EPA-8260	10/06/05	10/06/05 19:58	SDU	MS-V12	1	BOJ0361		
4-Bromofluorobenzene (Surrogate)	99.8	%	86 - 115 (LCL - UCL)	EPA-8260	10/06/05	10/07/05 15:42	SDU	MS-V12	50	BOJ0361		

Project: 1871
Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/13/05 08:55

<b>BCL Sample ID:</b> 0509654-07	Client Sam	ole Nam	e: 1871, MW-1, N	/IW-1, 9/28	/2005 9	:05:00AM, Me	lissa					
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	22	ug/L	0.50	EPA-8260	10/06/05	10/06/05 20:20	SDU	MS-V12	1	BOJ0361	ND	
Ethylbenzene	290	ug/L	12	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361	ND	A01
Methyl t-butyl ether	320	ug/L	12	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361	ND	A01
Toluene	0.97	ug/L	0.50	EPA-8260	10/06/05	10/06/05 20:20	SDU	MS-V12	1	BOJ0361	ND	
Total Xylenes	660	ug/L	25	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361	ND	A01
Ethanol	ND	ug/L	1000	EPA-8260	10/06/05	10/06/05 20:20	SDU	MS-V12	1	BOJ0361	ND	
Total Purgeable Petroleum Hydrocarbons	8200	ug/L	1200	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	76 - 114 (LCL - UCL)	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361		
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260	10/06/05	10/06/05 20:20	SDU	MS-V12	1	BOJ0361		
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361		
Toluene-d8 (Surrogate)	105	%	88 - 110 (LCL - UCL)	EPA-8260	10/06/05	10/06/05 20:20	SDU	MS-V12	1	BOJ0361		
4-Bromofluorobenzene (Surrogate)	103	%	86 - 115 (LCL - UCL)	EPA-8260	10/06/05	10/07/05 17:35	SDU	MS-V12	25	BOJ0361		
4-Bromofluorobenzene (Surrogate)	99.9	%	86 - 115 (LCL - UCL)	EPA-8260	10/06/05	10/06/05 20:20	SDU	MS-V12	1	BOJ0361		

Project: 1871

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/13/05 08:55

# **Volatile Organic Analysis (EPA Method 8260)**

### **Quality Control Report - Precision & Accuracy**

										Contr	ol Limits
				Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample ID	QC Sample Type	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Benzene	BOJ0361	BOJ0361-MS1	Matrix Spike	ND	27.520	25.000	ug/L		110		70 - 130
		BOJ0361-MSD1	Matrix Spike Duplicate	ND	26.740	25.000	ug/L	2.76	107	20	70 - 130
Toluene	BOJ0361	BOJ0361-MS1	Matrix Spike	ND	25.740	25.000	ug/L		103		70 - 130
		BOJ0361-MSD1	Matrix Spike Duplicate	ND	25.270	25.000	ug/L	1.96	101	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BOJ0361	BOJ0361-MS1	Matrix Spike	ND	10.600	10.000	ug/L		106		76 - 114
		BOJ0361-MSD1	Matrix Spike Duplicate	ND	10.660	10.000	ug/L		107		76 - 114
Toluene-d8 (Surrogate)	BOJ0361	BOJ0361-MS1	Matrix Spike	ND	10.430	10.000	ug/L		104		88 - 110
		BOJ0361-MSD1	Matrix Spike Duplicate	ND	10.500	10.000	ug/L		105		88 - 110
4-Bromofluorobenzene (Surrogate)	BOJ0361	BOJ0361-MS1	Matrix Spike	ND	10.410	10.000	ug/L		104		86 - 115
		BOJ0361-MSD1	Matrix Spike Duplicate	ND	10.280	10.000	ug/L		103		86 - 115



Project: 1871

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/13/05 08:55

# **Volatile Organic Analysis (EPA Method 8260)**

**Quality Control Report - Laboratory Control Sample** 

				LCS 27.500 25.000 1.0 ug/L 110 70 - 130  LCS 25.550 25.000 1.0 ug/L 102 70 - 130  LCS 10.590 10.000 ug/L 106 76 - 114							
Constituent	Batch ID	QC Sample ID	QC Type	Result		PQL	Units			RPD	Lab Quals
Benzene	BOJ0361	BOJ0361-BS1	LCS	27.500	25.000	1.0	ug/L	110	70 - 130		
Toluene	BOJ0361	BOJ0361-BS1	LCS	25.550	25.000	1.0	ug/L	102	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BOJ0361	BOJ0361-BS1	LCS	10.590	10.000		ug/L	106	76 - 114		
Toluene-d8 (Surrogate)	BOJ0361	BOJ0361-BS1	LCS	10.400	10.000		ug/L	104	88 - 110		
4-Bromofluorobenzene (Surrogate)	BOJ0361	BOJ0361-BS1	LCS	10.170	10.000		ug/L	102	86 - 115		



Project: 1871

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/13/05 08:55

# **Volatile Organic Analysis (EPA Method 8260)**

## **Quality Control Report - Method Blank Analysis**

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BOJ0361	BOJ0361-BLK1	ND	ug/L	1.0	0.12	<del></del>
Ethylbenzene	BOJ0361	BOJ0361-BLK1	ND	ug/L	1.0	0.13	
Methyl t-butyl ether	BOJ0361	BOJ0361-BLK1	ND	ug/L	2.0	0.15	
Toluene	BOJ0361	BOJ0361-BLK1	ND	ug/L	1.0	0.15	
Total Xylenes	BOJ0361	BOJ0361-BLK1	ND	ug/L	1.0	0.40	
Ethanol	BOJ0361	BOJ0361-BLK1	ND	ug/L	1000	110	
Total Purgeable Petroleum Hydrocarbons	BOJ0361	BOJ0361-BLK1	ND	ug/L	50	23	
1,2-Dichloroethane-d4 (Surrogate)	BOJ0361	BOJ0361-BLK1	105	%	76 - 114 (L	CL - UCL)	
Toluene-d8 (Surrogate)	BOJ0361	BOJ0361-BLK1	104	%	88 - 110 (L		
4-Bromofluorobenzene (Surrogate)	BOJ0361	BOJ0361-BLK1	101	%	86 - 115 (L	CL - UCL)	

Project: 1871

Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/13/05 08:55

#### **Notes and Definitions**

J	Estimated value
A53	Chromatogram not typical of gasoline.
A01	$PQL\space{-0.05em}\space{-0.05em}$ and MDL\space{-0.05em}\space{-0.05em}\space{-0.05em}\space{-0.05em} are raised due to sample dilution.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

BC LABORATORIES INC		SAN	IPLE REC	EIPT FO	RM	Rev. No.	10 01/	21/04	 Page	lor l
Submission #: OS- 9659	F	roject C	ode:			ТВ	Batch #			
SHIPPING INFOR				I	<del></del>			TAINED		
Federal Express  UPS	Hand De				Ice Ches		ING CON	ne 🗆		
BC Lab Field Service Other					Box			ner □ (Sp	ecifyl	
								,,		
Refrigerant: Ice 🗵 Blue Ice 🗆	None	e 🖸 🔾	Other 🗆	Comme	ents:					
Custody Seals: Ice Chest □	Containe	re []	None P	Comme				· · · · · ·		
Intact? Yes 🗆 No 🔘		s D No D	None A	Comme	ents:					
		**************************************								
All samples received? Yes No 🗆	All sample	s containe	rs intact?	res No	0	Descrip	tion(s) mat	ch COC?	Yes 🗗 No	0
COC Received	I	ice C	hest ID _ @	=/W	Emis	sivity	ĺ	Date/	ime 1/28	7770
□YES □ NO		Tempe	rature:	2.4 °C		ainer 0	2-pe	1		
	<del></del>	Thermome	eter ID;	48				Analy:	st Init 🏄	RM
SAMPLE CONTAINERS	ļ	<b>,</b>	T	·	SAMPLE	NUMBERS		·		
	1	2	3	1 4	5	6	7	. 8	9	10
OT GENERAL MINERAL/ GENERAL PHYSICAL		<b>-</b>	<u> </u>	ļ		ļ			<del> </del>	-
PT PE UNPRESERVED	<b>!</b>		<b> </b>			<u> </u>		ļ		<del></del>
OT INORGANIC CHEMICAL METALS	<b>}</b>		<u> </u>		ļ	<del> </del>		<del> </del>	<del> </del>	
PT INORGANIC CHEMICAL METALS	<b>}</b> -		-			<b> </b> -		<b> </b>	ļ	-
PT CYANIDE	<b> </b>	<b></b>			<u> </u>				<del> </del>	
PT TOTAL SULFIDE	<b></b>	<b></b> -							<b> </b>	
PT TOTAL SULFIDE  201 NITRATE / NITRITE			<del>                                     </del>						<del> </del>	-
100ml TOTAL ORGANIC CARBON			<b></b>						<del> </del>	
QT TOX			<b></b>		-			<b> </b>	<del> </del> -	<del> </del>
PT CHEMICAL OXYGEN DEMAND						<del> </del>		<del> </del>	<b>†</b>	<del></del>
PIA PHENOLICS								<b> </b>		<b></b>
40ml VOA VIAL TRAVEL BLANK										
40mi VOA VIAL	A 13.	p. 3.	A:3.	A 13	# 3.	A:3 .	A 3.	1	1 1	. ,
QT EPA 413.1, 413.2, 418.1										
PT ODOR								·		
RADIOLOGICAL										
BACTERIOLOGICAL				-						
40 ml YOA VIAL- 504		promotorios.	117 1337			March Company of the				
QT EPA 508/608/8080			HK BY	Systematical	RIBUTIC	IN				
QT EPA 515.1/8150			1 U.	MEUL	1					
QT EPA 525				SL	IB-OUT					
QT EPA 525 TRAVEL BLANK					***************************************	manus marrowan com a mil				
100ml EPA 547										
100mt EPA 531.1										<b></b>
QT EPA 548										
QT EPA 549									ļ	
QT EPA 632										
QT EPA 8015M										-
QT AMPER						· · · · · · · · · · · · · · · · · · ·				-
QT AMBER										<b></b>
B OZ. JAR									<b></b>	
32 OZ. JAR SOU STEEVE										
SOIL SLEEVE PCR VIAL										
PCB VIAL										1
PLASTIC BAG										+
FERROUS IRON ENCORE .										1
Unit ONE (										
			<u> </u>	احين خير					<u> </u>	<u>.                                    </u>

Sample Numbering Completed By: Date/Time: 9/29 0/30 Artin IH:1DOCS1WP80ILAB\_DOCS1FORMS1SAMREC2.WPD BC LABORATORIES, INC.

4100 Atlas Court D Bakersfield, CA 93303 (661) 3:27-4911 D FAX (661) 3:27-1913

CHAN OF CUSTODY

	BORATORES, INC.	(661) 3:27-4911		and the second s	er agresa i mangana a mangana Tangana angana anga	a maragement consistence or also	CHAN OF	e proper proper proper	iki indahi madiri mad	angung mengeng mengeng m	n jergen reger i roer jaar (jaar) roer	grang company An An An An An
alada e e e e e e e e e e e e e e e e e e			#05	- 9659		id, w albeda, is shoote , to be	Analysis	M.	7.40			
resident community of process of	ne: Phillips 66 / Unocal	Consultart Firm: TR	AND THE PROPERTY OF THE PARTY O	en en ungerna en plijantar, se alcidras, en Plijante versentinos se	WATTIK (GV/)	3						
Address	96 Mesc. Arthur Bled	21 Techology Drive Irvine, CA 92618-230 Attn: Anju Farfan			Ground- water (S)		s o xysenates		A ( MARINE MARINE MARINE)			
city: O	Jaklomed	4-digit site#: 1871	The state of the s	Abunda er knobbe d Obsala b Kobbe variannen.	(1/1/1/)	Ä		(X)	í Ki	2 2 2 3 4 4	8	ij te
The second of th		Workerier# 1120	TRUSC	21	Waster Water	<u> </u>	The state of the s	3	ig S	a.	30978 82608	Comments of the comments of th
tiete ()		Project#: 410500		The second section of the second sections.	Control of the Contro		At excell to the control of the cont	1		S.	50778 A	
*hillps s	36 Minocal Mgr: Kosel	Sampler Name: M	ulissa	The state of the s	Sludge	6 1136 6 1136 1 126	The state of the s	Page 1			٥ <u>٦</u> ٧ <u>٣</u>	17
Lab#		Field Point Name	Date &	& Time npied			N SW	BTEXMIBEIOXYS	ETHANOL BY 8250B	A. A.	BIEX MTBE	Leading Control of the Control of th
of statement of statement considerate of the statement of	Mw-IL	3 your with	09/28	0835	GW	den 2 och Grand som samballann sagdar	magania diploma projekto a relatant (16 ft parties relatas, relatant	#	乂	、メ	.71	Shd
- Z	MW-10	aas sungas sungas asaas asaa sungas ahaa sungas ahaa sungas ahaa sungas sungas sungas sungas sungas sungas su	e nagamen nejahajin e e e elija ger i menamo e e policieno ir elijakan	10947	Company of Editions in company to the Edition of Company of Compan	palament separat	Separat kinggar og krakter (i kallede (i krakter) er ennstann (i støren)	-		15		
-2 -3 -4	MW-8	anti, il antici, il antico il antico il consi, il consi, il antico e antico e di consi e dello e di colorio e antico e a	100000 - a roman is arosat a signia - i arista - a roma	6800	a pulsperi se unigare se septimi se propinsi se unigare se unigare se unigare se unigare se uniqui se se uniqui se u	out on displace of antique and	: (ingrae, et anakan, philips ka, erektikar arangar-, it sketye, ar faskis,	an and a second				
— 4 a kirani da Malini da Anglas yaka aminin 17 yakin	MW-9	para area a area area area area area are	- making of a state of the landscape of the landscape of the state of the landscape of the	0855	eniliperario de ciargo a comenciario en llegeno de disessión de sentente e entidad.	gg of stangeness managed and	Andrews, exchanged a platique of a PARSEAL call by Technological or a shaker of					Sec. Come sever vide
The Boston to Martin Scientific Association (1990)	MW-7	ent in 1884), in angle, in little of endough difference of Color Congress of Endough in Angles in Society of the	-2000 - II antoni, triustais ri littiin. a tudur. Il Meter	0910	an erdere wannen endede frige- somethin softweek, school	ogus, anastasus et elevent. Na	olizada el gradose, relevidore, la emigrat. In esperie, la elistron, la dissance					Suggest and of the last of the
- 6	MW-Ç	uara—regioni, adulari, Nilodo, viteralini, ritullini, nel di	orbando () Jirgano (1988) esta altagano companso el Silvato	0748	on galandi ambalikato ni kakasatan ili parkia manimaka sa kakasata sekita	ana in september at an objective at a	aberican registration distribution of professional disposance of aberican or stations	No. 34 Section 10 Confession 1				
7	Mw-I	<u> </u>	Man = (1000) = 20000 = 20000 = 20000 > 10000	0905	<i></i>	apar subregicio in distribut i P.A.	Colors, St. Market Backlery, of Colors and Colors of Palabotic St. States	11 mg mar - 2000 m - 2011	7	<b>V</b>	V V	N
Comments		Relinquished by (3)	isneture:	XI)		nad v na dinina v na dinina d v 17 d	Received by:					/\\ 30
GLOBA_ '	_	Relinquished (v) (S) Relinquished (v) (S)	giên Arred	1			Reserved by C	las n	4 1	7/2 1) Date	e & Time <b>\$/05-144</b> e & Time	KI
	06 00101493	(P) = PRETE	thos I	consider Chartonistation Whiterchailms.	o a Blade / wheel is a Stad in Admin to Before it Chart is associated	alic diser approximate	KEL Cle	Mck	Jeffer	19.5 M	28. 05 1.2 D	320
~CJMU							9-28-05		1, 0	11. ( D3C	Lype	1

#### **STATEMENTS**

#### **Purge Water Disposal**

Non-hazardous groundwater produced during purging and sampling of monitoring 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 containing a significant amount of liquid-phase hydrocarbons was accumulated separately in drums 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.