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By dehloptoxic at 2:17 pm, Nov 02, 2006



76 Broadway Sacramento, California 95818

October 30, 2006

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

Re: Report Transmittal

Quarterly Report Third Quarter – 2006 76 Service Station #0752 800 Harrison Street 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

man H. Koral

Attachment



October 30, 2006

TRC Project No. 42016212

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

RE: Quarterly Status Report – Third Quarter 2006 and Notice of Intent to Proceed with Site Assessment Activities 76 Service Station #0752, 800 Harrison Street, Oakland, California Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Third Quarter 2006 Status Report for the subject site. The subject site is a 76 service station located northeast and across 8th Street from a Shell service station that is located adjacent to and northeast of a currently closed Arco service station. In addition, a gasoline and diesel service station referred to as "Mandarin Auto Service" is located east-southeast of the site.

Work plans for additional site assessment have been pending with the Alameda County Health Care Services agency for over 60 days. In accordance with State of California law, in order to manage risk to the public, assessment work will proceed according to the submitted work plans pending any agency-requested changes to the scope of work. A schedule will be submitted under separate cover once finalized, with the hope that agency review of the workplans will take place in the interim.

## PREVIOUS ASSESSMENTS

November 1990: Kaprealian Engineering, Inc's. (KEI) initial fieldwork was conducted when two underground gasoline storage tanks (USTs) and a waste oil tank were removed from the site. The tanks were made of steel, and no apparent holes or cracks were observed in the fuel tanks; however, a 1/8 inch square hole was observed in the waste oil tank. KEI collected an additional soil sample from the fuel tank pit at a depth of approximately 19 feet below ground surface (bgs).

December 1990: KEI returned to the site to collect soil samples from beneath the pump islands. KEI returned to the site in order to collect a sample from the pump island excavation.

January 1991: At the request of the Alameda County Health Care Services (ACHCS), KEI returned to the site in order to collect one additional soil sample from the waste oil tank pit. After sampling, the waste oil tank pit was excavated to the sample depth of 9.5 feet bgs.

QSR – Third Quarter 2006 and Notice of Intent to Proceed with Site Assessment Activities 76 Service Station #0752, Oakland, California October 30, 2006
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May 1991: Three monitoring wells and two exploratory borings were installed at the site. The monitoring wells were drilled and completed to total depths ranging from 33 to 35 feet bgs. The exploratory borings were each drilled to total depths of 23 feet bgs. Groundwater was encountered at depths ranging from about 22.5 to 24 feet bgs during drilling. Based on the analytical results, a monthly groundwater monitoring and quarterly groundwater-sampling program was implemented.

September-October 1992: Three additional monitoring wells were installed to further delineate the extent of groundwater contamination. These wells were drilled to total depths ranging from 32 to 33 feet bgs. Groundwater was encountered at depths ranging from 21.5 to 23 feet bgs.

April 1993: Two additional monitoring wells were installed in the vicinity of the site. These monitoring wells were drilled to a total depth of 31 to 33 feet bgs. Groundwater was encountered at depths of 21 to 21.5 feet bgs. Based on the analytical results of all of the soil samples collected, KEI concluded that the horizontal extent of the soil contamination at the site had been defined, and that the contamination was limited to the areas beneath the fuel tanks and the southernmost pump island. Based on the groundwater monitoring data collected and evaluated through April of 1993, the groundwater flow direction had been consistently to the southwest or south-southwest. In addition, no free product or sheen had been detected in any well through April of 1993. KEI recommended quarterly monitoring frequency.

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

# SENSITIVE RECEPTORS

Lake Merritt and the Oakland Estuary are located approximately 0.5 miles from the site. A sensitive receptor survey has not been performed for this site.

# MONITORING AND SAMPLING

Currently, four offsite and four onsite wells are monitored and sampled semi-annually. All eight wells were gauged and sampled this quarter. The groundwater flow direction is toward the southwest at a calculated hydraulic gradient of 0.008 feet per foot. This is consistent with historical trends. A graph of historical groundwater flow directions is included in this report.

## CHARACTERIZATION STATUS

Total petroleum hydrocarbons as gasoline (TPH-g) were detected in five of the eight wells samples at a maximum concentration of 2,800 micrograms per liter ( $\mu g/l$ ) in monitoring well MW-7. Benzene was detected in wells MW-5 and MW-7 at concentrations of 20  $\mu g/l$  and 180  $\mu g/l$ , respectively. MTBE was detected in all eight wells sampled at a maximum concentration of 12,000  $\mu g/l$  in monitoring well MW-3.



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## REMEDIATION STATUS

Remediation is not currently being conducted at the site.

# RECENT CORRESPONDENCE

No correspondence this quarter. TRC has still not received comments on or approval of the February 28, 2006 and March 13, 2006 work plans.

# **CURRENT QUARTER ACTIVITIES**

September 27, 2006: 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.

## CONCLUSIONS AND RECOMMENDATIONS

To date, the ACHCS has not provided any comments on or approved the February 28, 2006 or March 13, 2006 work plans. As more than 60 days has passed since submittal of these documents, in accordance with State of California law and in order to protect public health and provide for management of risk, TRC will proceed with scheduling the proposed scopes of work.

A schedule will be submitted under separate cover once finalized, with the hope that agency review of the workplan will take place in the interim. Completion of additional assessment will allow appropriate remediation technique selection. A proposal for remediation will accompany the results of assessment.

TRC recommends continuing semi-annual monitoring and sampling, using current purging and sampling methods, to assess plume stability and concentration trends at key wells.

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

Sincerely,

TRC

Keith Woodburne, P.G. Senior Project Manager

TRC

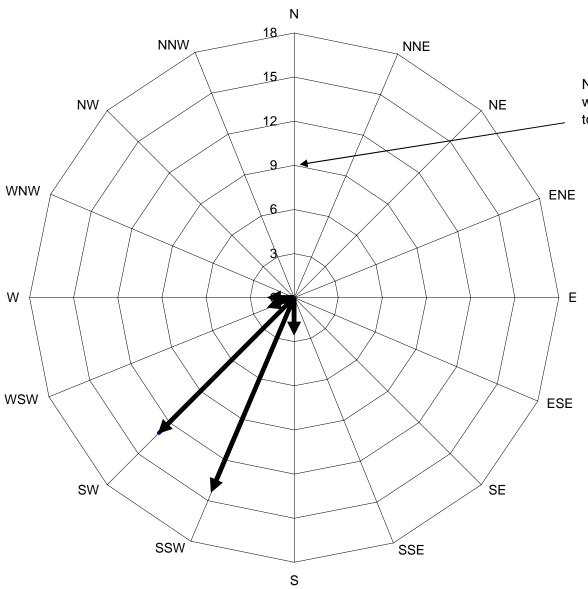
QSR – Third Quarter 2006 and Notice of Intent to Proceed with Site Assessment Activities 76 Service Station #0752, Oakland, California October 30, 2006
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# Attachments:

Semi-Annual Monitoring Report, April 2006 through September 2006 (TRC, October 13, 2006) Historical Groundwater Flow Directions – January 1994 through September 2006

cc: Shelby Lathrop, ConocoPhillips (electronic upload only)

# Historical Groundwater Flow Directions for Tosco (76) Service Station No. 0752 January 1994 through September 2006



Number of monitoring events in which groundwater was reported to flow in a particular direction.





October 13, 2006

ConocoPhillips Company 76 Broadway Sacramento, California 95818

ATTN:

MR. THOMAS H. KOSEL

SITE:

**76 STATION 0752** 

800 HARRISON STREET OAKLAND, CALIFORNIA

RE:

SEMI-ANNUAL MONITORING REPORT

APRIL THROUGH SEPTEMBER 2006

Dear Mr. Kosel:

Please find enclosed our Semi-Annual Monitoring Report for 76 Station 0752, located at 800 Harrison Street, 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 (2 copies)

Enclosures 20-0400/0752R08.QMS



# SEMI-ANNUAL MONITORING REPORT APRIL THROUGH SEPTEMBER 2006

76 STATION 0752 800 Harrison Street Oakland, California

Prepared For:

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

By:

No. EG 1034

Exp. 44

Senior Project Geologist, Irvine Operations October 12, 2006

	LIST OF ATTACHMENTS
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key Contents of Tables Table 1: Current Fluid Levels and Selected Analytical Results Table 1a: Additional Current Analytical Results Table 2: Historic Fluid Levels and Selected Analytical Results Table 2a: Additional Historic Analytical Results Table 2b: Additional Historic Analytical Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase TPH-G (GC/MS) 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 Field Monitoring Data Sheet – 09/27/06 Groundwater Sampling Field Notes – 09/27/06
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statement	Purge Water Disposal Limitations

# Summary of Gauging and Sampling Activities April 2006 through September 2006 76 Station 0752 800 Harrison Street Oakland, CA

Project Coordinator: Shelby Lathrop Telephone: 916-558-7609	Water Sampling Contractor: <i>TRC</i> Compiled by: <b>Christina Carrillo</b>
Date(s) of Gauging/Sampling Event: <b>09/27/06</b>	•
Sample Points	
Groundwater wells: 4 onsite, 4 offsite Purging method: <b>Diaphragm pump</b> Purge water disposal: <b>Onyx/Rodeo Unit 100</b> Other Sample Points: <b>0</b> Type: <b>n/a</b>	Wells gauged: 8 Wells sampled: 8
Liquid Phase Hydrocarbons (LPH)	
Wells with LPH: <b>0</b> Maximum thickness (feet): LPH removal frequency: <b>n/a</b> Treatment or disposal of water/LPH: <b>n/a</b>	: <b>n/a</b> Method: <b>n/a</b>
Hydrogeologic Parameters	
Depth to groundwater (below TOC): Minimum Average groundwater elevation (relative to available Average change in groundwater elevation since provided Interpreted groundwater gradient and flow direction Current event: 0.008 ft/ft, southwest Previous event: 0.01 ft/ft, south (03/27/0	ole local datum): <b>15.79 feet</b> revious event: - <b>3.41 feet</b> on:
Selected Laboratory Results	
Wells with detected <b>Benzene: 2</b> Maximum reported benzene concentration: <b>1</b>	Wells above MCL (1.0 μg/l): 2 80 μg/l (MW-7)
Wells with TPH-G by GC/MS 5 Wells with MTBE 8	Maximum: 2,800 μg/l (MW-7) Maximum: 12,000 μg/l (MW-3)
Notes:	

# **TABLES**

### TABLE KEY

## STANDARD ABBREVIATIONS

-- = not analyzed, measured, or collected

LPH = liquid-phase hydrocarbons

Trace = less than 0.01 foot of LPH in well

μg/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-G (GC/MS) = total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B

TPH-D = total petroleum hydrocarbons with diesel distinction

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: <u>Surface Elevation Measured Depth to Water + (Dp x LPH Thickness)</u>, 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 0752 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

# Contents of Tables Site: 76 Station 0752

Current Event	Cı	urre	nt E	Event	
---------------	----	------	------	-------	--

Table 1	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)		Comments	<b>3</b> .
Table 1a	Well/ Date	Ethanol (8260B)									•					·
Historic D	ata										-					
Table 2	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)		Comments	<b>;</b>
Table 2a	Well/ Date	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Total Oil and Grease		Tetrachloro - ethene (PCE)	Trichloro- ethene (TCE)	Cadmium (dissolved)	Calcium	Chromium (total)
Table 2b	Well/ Date	Iron (total)	Lead (total)	Manganese (dissolved)	Nickel	Zinc (dissolved)	Nitrate	Sulfate	Alkalinity ( bicarb.)	Oxygen Demand (biologic)	Post-purge Dissolved	Pre-purge Dissolved				

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 27, 2006
76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/I)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-1		(Screen I	nterval in fe	eet: 13.5-3	3.5)			_						
09/27/0	6 34.69	18.45	0.00	16.24	-3.42		170	ND<0.50	ND<0.50	ND<0.50	0.61		73	
MW-2		(Screen I	nterval in fe	eet: 15-33)	)									•
09/27/0	6 34.72	18.15	0.00	16.57	-3.24		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		7.7	
MW-3		(Screen I	aterval in fe	eet: 15-33)	)									
09/27/0	6 33.14	17.40	0.00	15.74	-3.74		ND<12000	ND<120	ND<120	ND<120	ND<120		12000	
MW-4		(Screen I	nterval in fe	et: 15-33)	)		*							•
09/27/0	6 32.71	16.91	0.00	15.80	-2.97		ND<1000	ND<10	ND<10	ND<10	ND<10		1600	
MW-5		(Screen I	nterval in fe	et: 15-32)	)									•
09/27/0	6 32.95	17.06	0.00	15.89	-3.16		1300	20	11	2.3	15		21	
MW-6		(Screen I	nterval in fe	et: 15-32)										
09/27/0	6 32.16	16.56	0.00	15.60	-3.54		1800	ND<12	ND<12	ND<12	ND<12		3300	
MW-7		(Screen L	nterval in fe	et: 13-33)										
09/27/0	6 32.20	16.96	0.00	15.24	-3.56		2800	180	ND<12	15	44		4200	
MW-8		(Screen I	nterval in fe	et: 11-29)										
09/27/06	6 32.00	16.75	0.00	15.25	-3.62	<b></b>	520	ND<5.0	ND<5.0	ND<5.0	8.2		870	

# Table 1 a ADDITIONAL CURRENT ANALYTICAL RESULTS 76 Station 0752

Date Sampled Ethanol (8260B)

 $(\mu g/l)$ 

MW-1

09/27/06 ND<250

MW-2

09/27/06 ND<250

MW-3

09/27/06 ND<62000

MW-4

09/27/06 ND<5000

MW-5

09/27/06 ND<250

MW-6

09/27/06 ND<6200

MW-7

09/27/06 ND<6200

MW-8

09/27/06 ND<2500

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)		Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)		
MW-1	. (	Screen Int	erval in fee	t: 13.5-33.	5)										· · · · · · · · · · · · · · · · · · ·
06/05/9	34.94					ND		ND	ND	ND	ND				
09/30/9	34.94					ND		ND	ND	ND	ND				
12/30/9	34.94					ND		ND	ND	ND	ND				
04/02/9	34.94					ND		ND	ND	ND	ND				
06/30/9	34.94					ND		ND	ND	ND	ND				
09/15/9	2 34.94		. <b></b>			76		1.0	ND	ND	ND				
12/21/9	34.94	21.17	0.00	13.77		95		0.69	ND	ND	1.0				
04/28/9	34.94					920	***	3.1	2.3	1.2	9.7				
07/23/9	34.94	20.13	0.00	14.81		ND		0.5	0.66	ND	ND				•
10/05/9	34.69	20.30	0.00	14.39	-0.42	92		1.5	ND	ND	0.72			•	•
01/03/9	34.69	20.52	0.00	14.17	-0.22	ND		ND	ND	ND	ND				
04/02/9	34.69	20.16	0.00	14.53	0.36	ND		ND	ND	ND	ND				•
07/05/9	34.69	19.27	0.00	15.42	0.89	250		4.8	13	1.2	7.3	·			
10/06/9	94 34.69	20.87	0.00	13.82	-1.60	540		1.4	ND	0.66	11				
01/02/9	34.69	19.67	0.00	15.02	1.20	140		ND	ND	ND	ND				
04/03/9	5 34.69	17.61	0.00	17.08	2.06	580		3.6	0.8	ND	4.0				
07/14/9	34.69	18.58	0.00	16.11	-0.97	260		2.1	ND	ND	1.2		7.7		
10/10/9	34.69	19.60	0.00	15.09	-1.02	220		2.0	ND	25	5.6	29			
01/03/9	6 34.69	19.69	0.00	15.00	-0.09	190		2.4	ND	0.71	1.2				
04/10/9	6 34.69	17.65	0.00	17.04	2.04	540		8.9	1.7	1.5	7.4	50			
07/09/9	6 34.69	18.52	0.00	16.17	-0.87	490		3.0	1.4	1.3	2.5	150			
01/24/9	7 34.69	17.72	0.00	16.97	0.80	760		27	0.89	5.2	10	510			
07/23/9	7 34.69	19.42	0.00	15.27	-1.70	ND		ND	ND	ND	ND	550			

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	
MW-1	continued													
01/26/9	98 34.69	17.46	0.00	17.23	1.96	1800		ND	ND	ND	ND	4800		
07/03/9	98 34.69	18.61	0.00	16.08	-1.15	ND		ND	ND	ND	ND	1800		
01/14/9	99 34.69	18.92	0.00	15.77	-0.31	83		ND	ND	ND	ND	230		
07/15/9	99 34.69	17.84	0.00	16.85	1.08	110		ND	ND	ND	1.0	290		
01/07/0	00 34.69	19.13	0.00	15.56	-1.29	ND		ND	ND	ND	ND	260		
07/19/0	00 34.69	20.27	0.00	14.42	-1.14	ND		ND	ND	ND	ND	648		
01/02/0	)1 34.69	20.04	0.00	14.65	0.23	ND		ND	ND	ND	ND	119		
05/23/0	)1 34.69	18.27	0.00	16.42	1.77	84		ND	ND	ND	ND	760	·	
07/30/0	34.69	18.56	0.00	16.13	-0.29	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	350		
10/15/0	34.69	18.72	0.00	15.97	-0.16	96		ND<0.50	ND<0.50	ND<0.50	ND<0.50	160		
01/14/0	34.69	16.78	0.00	17.91	1.94	450		ND<2.5	ND<2.5	ND<2.5	3.3	4100		
04/15/0	34.69	17.35	0.00	17.34	-0.57	ND<1000		ND<10	ND<10	ND<10	ND<10	10000	·	
07/15/0	34.69	17.63	0.00	17.06	-0.28	2100		ND<10	ND<10	ND<10	ND<20		2100	
01/18/0	34.69	17.04	0.00	17.65	0.59	ND<25000		ND<250	ND<250	ND<250	ND<500		29000	
07/11/0	34.69	17.91	0.00	16.78	-0.87	4000		ND<25	ND<25	ND<25	ND<50		6300	
02/04/0	34.69	17.98	0.00	16.71	0.07		8000	ND<50	ND<50	ND<50	ND<100		8500	
08/11/0	34.69	17.84	0.00	16.85	0.14		1100	ND<10	ND<10	ND<10	ND<20		1500	
03/31/0	34.69	15.71	0.00	18.98	2.13		ND<2000	ND<0.50	ND<0.50	0.54	2.2		4900	
09/30/0	34.69	17.65	0.00	17.04	-1.94		190	ND<0.50	ND<0.50	ND<0.50	ND<1.0		160	
03/27/0	6 34.69	15.03	0.00	19.66	2.62		760	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1000	
09/27/0	34.69	18.45	0.00	16.24	-3.42		170	ND<0.50	ND<0.50	ND<0.50	0.61		73	
MW-2	(5	Screen Inte	erval in feet	t: 15-33)										
06/05/9	34.97				<u></u> .	49		ND	ND	ND	ND			
09/30/9	34.97					130		18	0.53	14	9.6			
0752								Page 2	e of 14					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

		Water	Thickness	water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	(μg/l)	(µg/l)	
	continued													
12/30/9	34.97					91		16	0.89	11	1.9			
04/02/9						88		12	0.32	6.3	7.2			
06/30/9	2 34.97	***				76		9.3	0.76	4.8	6.9			
09/15/9	2 34.97	<del></del>				1300		91	5.7	80	110			
12/21/9	2 34.97	20.85	0.00	14.12	'	960		97	3.2	74	96			
04/28/9	34.97		<del></del>			1300		76	1.9	130	87			
07/23/9	34.97	19.81	0.00	15.16		66		1.8	ND	2.5	2.0			
10/05/9	34.72	19.95	0.00	14.77	-0.39	120		12	ND	2.1	12			
01/03/9	34.72	20.21	0.00	14.51	-0.26	260		25	ND	5.5	26.			
04/02/9	4 34.72	19.88	0.00	14.84	0.33	ND		0.65	ND	ND	0.99			
07/05/9	4 34.72	19.07	0.00	15.65	0.81	160		16	ND	0.73	10			
10/06/9	34.72	20.55	0.00	14.17	-1.48	170		15	ND	1.4	11			
01/02/9	5 34.72	19.25	0.00	15.47	1.30	190		27	ND	0.95	11			
04/03/9	5 34.72	17.49	0.00	17.23	1.76	2400		65	6.6	19	63			
07/14/9	5 34.72	18.30	0.00	16.42	-0.81	750		270	ND	ND	13			
10/10/9	5 34.72	19.25	0.00	15.47	-0.95	50		1.6	ND	ND	ND	200		
01/03/9	6 34.72	19.40	0.00	15.32	-0.15	ND		ND	ND	ND	ND			
04/10/9	6 34.72	17.35	0.00	17.37	2.05	300		42	ND	2.4	9	620		
07/09/9	6 34.72	18.22	0.00	16.50	-0.87	760		230	ND	1.3	2.4	1500		
01/24/9	7 34.72	17.59	0.00	17.13	0.63	2900		400	350	190	720	1300		
07/23/9	7 34.72	19.13	0.00	15.59	-1.54	ND		ND	ND	ND	ND	65		
01/26/9	8 . 34.72	17.12	0.00	17.60	2.01	ND		ND	ND	ND	0.58	13		
07/03/9	8 34.72	18.20	0.00	16.52	-1.08	140		26	ND	0.95	5.0	330		
01/14/9	9 34.72	18.56	0.00	16.16	-0.36	ND		0.54	ND	ND	ND	350		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

Date Sampled	TOC Elevation		epth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-Ģ (GC/MS)	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	continu	ed													
07/15	/99 34.	72	17.39	0.00	17.33	1.17	ND		0.88	ND	ND	ND	39		
01/07	/00 34.	72	18.78	0.00	15.94	-1.39	ND		ND	ND	ND	ND	24		
07/19	/00 34.	72	19.68	0.00	15.04	-0.90	ND		1.45	ND	ND	ND	117		
01/02		72	19.73	0.00	14.99	-0.05	ND		ND	ND	ND	ND	11.4		
05/23		72	18.16	0.00	16.56	1.57	ND		ND	ND	ND	ND	33		•
07/30			18.34	0.00	16.38	-0.18	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	67		
10/15		72	18.52	0.00	16.20	-0.18	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	31		
01/14		72	16.72	0.00	18.00	1.80	ND<50		ND<0.50	ND<0.50	ND<0.50	0.56	11		•
04/15		72	17.26	0.00	17.46	-0.54	ND<50	<del></del>	ND<0.50	ND<0.50	ND<0.50	ND<0.50	110		
07/15			17.46	0.00	17.26	-0.20	270		21	ND<0.50	3.8	4.0	<b></b>	73	
01/18			16.93	0.00	17.79	0.53	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0		22	
07/11			17.68	0.00	17.04	-0.75	130		3.0	ND<0.50	ND<0.50	ND<1.0		89	
02/04			17.36	0.00	17.36	0.32		61	2.9	ND<0.50	ND<0.50	ND<1.0		22	
08/11			17.61	0.00	17.11	-0.25		140	ND<0.50	0.60	ND<0.50	ND<1.0		94	
03/31			15.56	0.00	19.16	2.05		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		14	·
09/30			17.31	0.00	17.41	-1.75		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		9.1	
03/27			14.91	0.00	19.81	2.40		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.7	
09/27	/06 34.	72	18.15	0.00	16.57	-3.24		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		7.7	
MW-3		-	een Inte	rval in feet	: 15-33)										
06/05		39					5800		1200	40	140	97			
09/30	91 33.	39					6800		1400	130	290	240		. <b></b>	
12/30							7200		2100	690	410	550	·		
04/02	92 33.	39					8000		1400	200	300	310			•
06/30	92 33.	39					8900		1900	210	430	550			
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Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS June 1991 Through September 2006 **76 Station 0752** 

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-3							·							
09/15/9	2 33.39					10000		1900	330	400	580			
12/21/9	2 33.39	20.02	0.00	13.37		8500		1500	150	310	330			
04/28/9						2600		220	7.6	41	27			
07/23/9	33.39	19.00	0.00	14.39		4400		660	26	160	82			
10/05/9	3 33.14	19.20	0.00	13.94	-0.45	9200		720	88	140	140			
01/03/9		19.40	0.00	13.74	-0.20	4900		830	100	170	150			
04/02/9	33.14	19.01	0.00	14.13	0.39	6000		800	30	140	110			
07/05/9	33.14	18.14	0.00	15.00	0.87	25000		ND	ND	ND	ND			
10/06/9	33.14	19.73	0.00	13.41	-1.59	49000		1300	200	280	300		7-	
01/02/9	5 33.14	18.36	0.00	14.78	1.37	480		1.6	ND	1.4	ND			
04/03/9	5 33.14	16.38	0.00	16.76	1.98	8100		65	ND	ND	ND			
07/14/9	5 33.14	17.49	0.00	15.65	-1.11	ND		1300	ND	ND	ND			
10/10/9	5 33.14	18.50	0.00	14.64	-1.01	3100		1400	36	50	53	190000		•
01/03/9	6 33.14	18.54	0.00	14.60	-0.04	ND		2300	110	150	140			
07/09/9	6 33.14	17.43	0.00	15.71	1.11	ND		2000	ND	150	160	140000		•
01/24/9	7 33.14	16.57	0.00	16.57	0.86	540		8.0	ND	11	9.9	45		
07/23/9	7 33.14	18.38	0.00	14.76	-1.81	7400		1900	180	140	340	45000		
01/26/9	8 33.14	16.22	0.00	16.92	2.16	250		2.2	1.9	0.87	1.9	4.0		
07/03/9	8 33.14	17.46		15.68	-1.24	230		1.8	2.5	1.5	3.4	6.3		
01/14/9	9 33.14	17.73		15.41	-0.27	400		8.2	2.7	0.90	5.9	140		
07/15/9		16.58		16.56	1.15	290		3.3	3.6	1.7	2.5	13		
01/07/0	0 33.14	17.84		15.30	-1.26	ND		890	91	100	480	20000		
07/19/0		18.92		14.22	-1.08	354		3.87	2.61	0.646	ND	13.7		
01/02/0	1 33.14	19.07		14.07	-0.15	464		ND	3.69	3.91	ND	21.1		
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Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS June 1991 Through September 2006 76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	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												•***		
05/23/0	33.14	17.12		16.02	1.95	420		7.6	3.1	3.0	5.1	1900			
07/30/0	33.14	17.38		15.76	-0.26	290		4.6	4.1	ND<0.50	3.4	23			
10/15/0	33.14	17.61		15.53	-0.23	400		ND<0.50	ND<0.50	ND<0.50	ND<0.50	13			
01/14/0	33.14	15.53		17.61	2.08	130		0.50	0.61	1.1	ND<0.50	9.9			
04/15/0		16.12		17.02	-0.59	280		9.9	1.6	3.3	6.8	1400			
07/15/0		16.48		16.66	-0.36	64		ND<0.50	ND<0.50	ND<0.50	ND<1.0	33			
01/18/0		15.81		17.33	0.67	420		0.54	ND<0.50	ND<0.50	ND<1.0	130			
07/11/0		16.74	;	16.40	-0.93		300	2.3	ND<0.50	ND<0.50	ND<1.0	22	31		
02/04/0		16.15	0.00	16.99	0.59		130	7.9	ND<0.50	ND<0.50	ND<1.0		63	•	
08/11/0		16.64	0.00	16.50	-0.49		ND<20000	ND<200	ND<200	ND<200	ND<400		20000		
03/31/0		14.53	0.00	18.61	2.11		ND<20000	330	ND<200	ND<200	ND<400		78000		•
09/30/0		16.55	0.00	16.59	-2.02		12000	360	40	ND<25	50		20000		
03/27/0		13.66	0.00	19.48	2.89		10000	150	ND<25	53	99		15000		
09/27/0	6 33.14	17.40	0.00	15.74	-3.74		ND<12000	ND<120	ND<120	ND<120	ND<120		12000		
MW-4		Screen Inte	rval in feet	:: 15-33)								•			
10/19/9						480		0.51	2.1	2.8	6.8				
12/21/9		19.73		13.39		220		ND	ND	0.97	0.74				
04/28/9						ND		ND	ND	ND	ND				
07/23/9		18.72		14.40		85		ND	ND	ND	ND				
10/05/9		18.74		13.97	-0.43	130		ND	ND	ND	ND				
01/03/9		18.93		13.78	-0.19	210		ND	ND	0.76	1.6	. <del></del>			
04/02/9		18.53		14.18	0.40	89		ND	ND	ND	ND				
07/05/9		17.67	· -	15.04	0.86	190		ND	ND	ND	ND				
10/06/9	4 32.71	19.25		13.46	-1.58	170		0.85	ND	ND	0.74				
0752	•							Page 6	of 14						

Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS June 1991 Through September 2006 **76 Station 0752** 

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	· ·	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)		
MW-4	continued														
01/02/9	95 32.71	17.75		14.96	1.50	ND		ND	ND	ND	ND				
04/03/9	32.71	15.87		16.84	1.88	98		ND	ND	ND	ND	<del></del>			
07/14/9	5 32.71	17.01		15.70	-1,14	ND		ND	ND	ND	ND				
10/10/9	95 32.71	18.03		14.68	-1.02	ND		ND	ND	ND	ND	120			
01/03/9	6 32.71	18.05		14.66	-0.02	ND		ND	ND	ND	ND				
04/10/9	6 32.71	16.00		16.71	2.05	ND		ND	ND	ND	ND	240			
07/09/9	96 32.71	16.96		15.75	-0.96	ND		ND	ND	ND	ND	480			
01/24/9	7 32.71	16.04	0.00	16.67	0.92	ND		ND	ND	ND	ND	270			
07/23/9		17.87	0.00	14.84	-1.83	ND		ND	ND	ND	ND	460			
01/26/9		16.05		16.66	1.82	ND		ND	ND	ND	ND	17	<b></b> .		
07/03/9		16.95		15.76	-0.90	ND		ND	ND	ND	ND	3.8			
01/14/9		17.34		15.37	-0.39	ND		ND	ND	ND	ND	4600			
07/15/9		16.36	<del></del>	16.35	0.98	ND		ND	ND	ND	ND	ND			
01/07/0		17.81		14.90	-1.45	ND		ND	ND	ND	ND	450			
07/19/0		18.94		13.77	-1.13	ND		ND	ND	ND	ND	ND			
01/02/0		18.85		13.86	0.09	ND		ND	ND	ND	ND	ND			
05/23/0	1	16.82		15.89	2.03	ND		ND	ND	ND	ND	ND			
07/30/0	1 32.71	16.88		15.83	-0.06	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.9			
10/15/0	1 32.71	17.08		15.63	-0.20	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0			
01/14/0		14.97		17.74	2.11	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	30			
04/15/0		15.48		17.23	-0.51	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	180			
07/15/0		15.90		16.81	-0.42	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	50			
01/18/0		15.39		17.32	0.51	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0			:
07/11/0	3 32.71	16.17		16.54	-0.78		200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		52		
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Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS June 1991 Through September 2006 **76 Station 0752** 

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (801.5M)	TPH-G (GC/MS)	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-4	continued											• • • • • • • • • • • • • • • • • • • •		
02/04/0	4 32.71	16.12	0.00	16.59	0.05		1300	ND<10	ND<10	ND<10	ND<20		1700	
08/11/0	4 32.71	16.16	0.00	16.55	-0.04		ND<5000	ND<50	ND<50	ND<50	ND<100		6400	
03/31/0	5 32.71	14.15	0.00	18.56	2.01		ND<1300	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1600	
09/30/0	5 32.71	16.91	0.00	15.80	-2.76		900	ND<0.50	ND<0.50	ND<0.50	ND<1.0	***	3800	
03/27/0	6 32.71	13.94	0.00	18.77	2.97		870	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2000	
09/27/0	6 32.71	16.91	0.00	15.80	-2.97		ND<1000	ND<10	ND<10	ND<10	ND<10		1600	•
MW-5		Screen Inte	erval in feet	t: 15-32)										
10/19/9						2700		61	5.0	100	61			
12/21/9		19.75	<b>-</b>	13.50		1700		51	4.7	83	34			
04/28/9						6700		200	190	250	430			
07/23/9		18.74		14.51		2000		122	8.0	68	47			
10/05/9		18.83		14.12	-0.39	1700		70	6.2	54	40			
01/03/9		19.05		13.90	-0.22	1500		44	ND	42	46			
04/02/9	4 32.95	18.68		14.27	0.37	1800		46	5.1	38	35			
07/05/9		17.90		15.05	0.78	2200		97	8.4	37	36			
10/06/9		19.37		13.58	-1.47	1600		79	5.7	28	22			•
01/02/9		17.92		15.03	1.45	1700		50	8.6	30	28			
04/03/9		16.15		16.80	1.77	5400		190	240	170	420			·
07/14/9		17.18		15.77	-1.03	3800		210	100	130	190			
10/10/9		18.15		14.80	-0.97	1300		92	14	15	39	1100		
01/03/9		18.20		14.75	-0.05	630		53	4.4	8.3	13			
04/10/9		16.05		16.90	2.15	500		25	18	7.0	20	640		
07/09/9		17.11		15.84	-1.06	1000		44	20	10	34	150		•
01/24/9	7 32.95	16.36	0.00	16.59	0.75	4000		190	400	160	430	600		
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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

	Date ampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
. —		(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	
		continued													•
	07/23/9		18.08		14.87	-1.72	1700	-	200	23	18	45	2500		
	01/26/9		16.27		16.68	1.81	ND		ND	ND	ND	ND	ND		
	07/03/9		17.27	<b></b>	15.68	-1.00	ND		ND	ND	ND	ND	ND		
	01/14/9		17.55		15.40	-0.28	330	<del></del>	61	4.1	2.2	2.9	560		
	07/15/99		16.41		16.54	1.14	1100		170	ND	ND	27	660	~~	
	01/07/0		17.85		15.10	-1.44	1000		180	6.3	ND	14	430		
	07/19/0	0 32.95	18.87		14.08	-1.02	2980	. <del></del>	289	57.3	65.3	43.4	976		
	01/02/0	1 32.95	18.47		14.48	0.40	1150		87.2	17.8	7.97	9.32	368		
	05/23/0	1 32.95	17.38		15.57	1.09	840		42	10	13	7.1	130		
	07/30/0	1 32.95	17.12		15.83	0.26	1900		82	24	6.9	13	370		
	10/15/0	1 32.95	17.33		15.62	-0.21	26000		390	230	58	1300	ND<500		
	01/14/02	2 32.95	15.33		17.62	2.00	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
	04/15/02	2 32.95	15.89		17.06	-0.56	310		20	6.7	11	7.7	77		
	07/15/02	2 32.95	16.21		16.74	-0.32	1500		40	22	60	28	170		
	01/18/03	3 32.95	15.68		17.27	0.53	ND<50		0.75	ND<0.50	ND<0.50	ND<1.0	81		
	07/11/03	3 32.95	16.29		16.66	-0.61		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.6	
	02/04/04	4 32.95	16.08	0.00	16.87	0.21		82	16	1.6	0.65	ND<1.0		16	
	08/11/04	4 32.95	16.38	0.00	16.57	-0.30		900	81	14	2.8	11		120	
	03/31/05	32.95	14.30	0.00	18.65	2.08		5000	160	84	65	72		140	•
	09/30/05	32.95	16.19	0.00	16.76	-1.89		1200	26	5.8	2,4	9.2		38	
	03/27/06	32.95	13.90	0.00	19.05	2.29		1100	13	12	4.7	16	<u></u>	8.8	
	09/27/00		17.06	0.00	15.89	-3.16		1300	20	11	2.3	15	 	21	
								1500	20	* 1	4.7	13		21	
MV	v-o 10/19/92		creen inte	erval in feet 	: 15-32)		3900		420	12	60	28			
075		_							Page 9		. 00	20			

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	
	continued													
12/21/9		19.17		13.25		2300		370	11	39	15			
04/28/9				`		1200		54	1.5	11	5.3			
07/23/9		18.17		14.25		580		19	0.99	3.4	2.7			
10/05/9		18.35		13.81	-0.44	1400		34	ND	5.3	7.3			
01/03/9		18.54		13.62	-0.19	1400		57	ND	8.5	11			
04/02/9		18.15		14.01	0.39	5300		ND	ND	ND	ND			
07/05/9		17.25		14.91	0.90	ND		ND	ND	ND	ND			
10/06/9	4 32.16	18.85		13.31	-1.60	11000		ND	ND	ND	ND			
01/02/9		17.51		14.65	1.34	550		18	0.92	2.0	1.8			
04/03/9		15.48		16.68	2.03	6600		ND	ND	ND	ND .			
07/14/9	5 32.16	16.63		15.53	-1.15	ND		ND	ND	ND	ND			•
10/10/9	5 32.16	17.68		14.48	-1.05	ND	'	81	ND	ND	ND	75000		
01/03/9		17.66		14.50	0.02	70		9.9	0.58	ND	0.81			
04/10/9		15.56		16.60	2.10	300		258	4.7	0.94	2.7	53000		
07/09/9		16.59		15.57	-1.03	1800		410	ND	12	ND	76000		
01/24/9	7 32.16	15.69	0.00	16.47	0.90	ND		0.80	ND	ND	ND	390		
07/23/9	7 32.16	17.53	0.00	14.63	-1.84	5700		1100	240	240	700	16000		
01/26/9	8 32.16	15.44		16.72	2.09	ND		ND	ND	ND	ND	ND		
07/03/9	8 32.16	16.58		15.58	-1.14	ND		ND	ND	ND	ND	ND		
01/14/9	9 32.16	17.02		15.14	-0.44	ND		ND	ND	ND	ND	14		
07/15/9		15.95		16.21	1.07	ND		ND	ND	ND	ND	2.8		
01/07/0	0 32.16	16.96		15.20	-1.01	78		24	ND	0.66	17	280		
07/19/0	0 32.16	18.04		14.12	-1.08	ND	75	ND	1.32	ND	0.974	ND		
01/02/0	1 32.16	18.10		14.06	-0.06	ND		ND	ND	ND	ND	ND .		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

	Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments	
_		(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(μg/l)	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(µg/l)		
	MW-6	continued														
	05/23/0	1 32.16	16.42		15.74	1.68	ND		ND	ND	ND	ND	ND	***		
	07/30/0	1 32.16	16.49		15.67	-0.07	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5			
	10/15/0	1 32.16	16.67		15.49	-0.18	ND<50		ND<0.50	0.62	ND<0.50	ND<0.50	ND<5.0		·	
	01/14/0	2 32.16	14.60		17.56	2.07	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		•	
	04/15/0	2 32.16	15.07		17.09	-0.47	ND<50		ND<0.50	ND<0.50	ND<0.50	0.73	ND<5.0			
	07/15/0	2 32.16	15.56		16.60	-0.49	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50			
	01/18/0	3 32.16	15.80		16.36	-0.24	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0			
	07/11/0	3 32.16	15.74		16.42	0.06		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0		
	02/04/0	4 32.16	15.49	0.00	16.67	0.25		ND<50	2.6	ND<0.50	ND<0.50	ND<1.0		2.4	,	
	08/11/0	4 32.16	15.81	0.00	16.35	-0.32		7900	95	ND<50	ND<50	ND<100		9100		
	03/31/0	5 32.16	13.70	0.00	18.46	2.11		ND<5000	2.5	ND<0.50	ND<0.50	ND<1.0		7600	•	
	09/30/0	5 32.16	15.48	0.00	16.68	-1.78		4300	140	37	28	41		5800		
	03/27/0	6 32.16	13.02	0.00	19.14	2.46		7200	34	0.66	0.96	18	***	9900		
	09/27/0	6 32.16	16.56	0.00	15.60	-3.54		1800	ND<12	ND<12	ND<12	ND<12		3300		
N	<b>1W-7</b>	(8	Screen Inte	rval in feet	t: 13-33)											
	10/19/9	2														
	04/28/9	3 32.49	'		<u>.</u>		110		2.8	1.3	1.4	1.7				
	07/23/9	3 32.49	18.60		13.89		790		23	3.3	28	5.4				
	10/05/93	3 32.20	18.76		13.44	-0.45	360		10	1.2	0.91	0.99				
	01/03/9	4 32.20	18.91		13.29	-0.15	ND		0.93	ND	0.75	1.9				
	04/02/94	4 32.20	18.50		13.70	0.41	360		2.0	ND	ND	0.8				
	07/05/9	4 32.20	17.52		14.68	0.98	ND		ND	ND	ND	ND				
	10/06/94	4 32.20	19.25		12.95	-1.73	340		5.6	0.85	ND	1.2				
	01/02/9:	32.20	17.67		14.53	1.58	ND		ND	ND	ND	ND				
0	752								Page 1	l of 14						

Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS June 1991 Through September 2006 76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	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-7	continue	d												
04/03/	95 32.2	0 15.81		16.39	1.86	570		24	ND	3.4	5.8			
07/14/	95 32.2	0 17.05		15.15	-1.24	ND		14	ND	ND	ND		<del></del>	
10/10/	95 32.2	0 18.08	-	14.12	-1.03	740		170	ND	ND	ND	13000		
01/03/	96 32.2	0 18.02		14.18	0.06	360		16	1.3	2.7	1.4			
04/10/	96 32.2	0 15.81		16.39	2.21	120		4.1	1.5	ND	0.88	3200		
07/09/	96 32.2	0 16.99		15.21	-1.18	ND		ND	ND	ND	ND	3400		
01/24/	97 32.2	0 16.08	0.00	16.12	0.91	ND		16	ND	ND	ND	6600		
07/23/	97 32.2	0 17.99	0.00	14.21	-1.91	ND		16	ND	ND	0.62	10000		
01/26/	98 32.2	0 15.56		16.64	2.43	ND		ND	ND	ND	0.56	ND		•
07/03/	98 32.2	0 17.04		15.16	-1.48	ND		ND	ND	ND	ND	ND		
01/14/	99 32.2	0									· 			inaccessible-parked car
07/15/	99 32.2	0 15.72		16.48		ND		ND	ND	ND	ND	290		
01/07/	00 32.2	0 16.80		15.40	-1.08	ND		7.7	ND	ND	4.4	98		
07/19/	00 32.2	0 17.88		14.32	-1.08	ND		ND	1.27	ND	0.979	ND		
01/02/	01 32.2	0 17.97		14,23	-0.09	ND		ND	ND	ND	ND	ND		
05/23/	01 32.2	0 16.81		15.39	1.16	. ND		ND	ND	ND	ND	ND		
07/30/		0 16.79		15.41	0.02	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
10/15/		0 16.98		15.22	-0.19	ND<50		ND<0.50	0.58	ND<0.50	ND<0.50	ND<5.0		
01/14/		0 14.85	<b>20</b> ·	17.35	2.13	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
04/15/		0 15.29		16.91	-0.44	ND<50		ND<0.50	ND<0.50	ND<0.50	0.70	ND<5.0		•
07/15/		0 15.92		16.28	-0.63	ND<50	,	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50		
01/18/		0 15.11		17.09	0.81	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0		
07/11/		0 15.89		16.31	-0.78		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		19	
02/04/	04 32.2	0 15.90	0.00	16.30	-0.01		ND<50	3.6	ND<0.50	ND<0.50	ND<1.0		3.2	
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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
·	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(μg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	
MW-7	continued	]												
08/11/		16.12	0.00	16.08	-0.22		ND<5000	120	ND<50	ND<50	ND<100		5100	
03/31/		13.99	0.00	18.21	2.13		ND<5000	190	ND<50	ND<50	ND<100		8400	
09/30/			0.00	16.27	-1.94		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
03/27/				18.80	2.53		2500	160	10	11	26		5600	
09/27/	06 32.20	16.96	0.00	15.24	-3.56		2800	180	ND<12	15	44		4200	
MW-8		Screen Int	erval in feet	t: 11-29)										
04/28/						450		18	1.8	1.8	1.4			
07/23/		18.45	78	13.88		260		5.1	ND	0.6	ND			
10/05/		18.57		13.43	-0.45	120		1.7	ND	ND	ND			
01/03/		18.73		13.27	-0.16	ND		ND	ND	. ND	ND	5.1		
04/02/		18.30		13.70	0.43	150		1.2	ND	ND	ND		. <del></del>	
07/05/		17.41		14.59	0.89	730		17	ND	1.6	ND			
10/06/		18.98		13.02	-1.57	140		ND	ND	ND	ND			
01/02/		17.58		14.42	1.40	440		18	0.72	2.0	1.8			
04/03/		15.54		16.46	2.04	960		11	ND	ND	ND			
07/14/				15.19	-1.27	280		4.2	2.6	1.1	3.3			
10/10/				14.15	-1.04	110		1.3	0.62	0.67	ND	170		
01/03/				14.18	0.03	63		ND	0.51	ND	1.8			
04/10/				16.30	2.12	ND		1.1	0.61	ND	ND	60		
07/09/				15.22	-1.08	72		1.0	ND	ND	ND	140		
01/24/				16.21	0.99	ND		ND	ND	ND	ND	76	·	
07/23/			0.00	14.31	-1.90	ND		ND	ND	ND	ND	270		
01/26/			<del></del>	16.50	2.19	ND		ND	ND	ND	0.76	2.9		
07/03/	98 32.00	16.80		15.20	-1.30	ND		ND	ND	ND	ND	ND		
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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 1991 Through September 2006
76 Station 0752

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	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)	$(\mu g/l)$	(μg/l)	
MW-8	continued				•									
01/14/9	99 32,00	17.13		14.87	-0.33	ND		ND	ND	ND	ND	11		A
07/15/9	99 32.00	15.85		16.15	1.28	ND		ND	ND	ND	ND	ND		
01/07/0	00 32.00	16.94		15.06	-1.09	ND		ND	ND	ND	ND	11		
07/19/0	00 32.00	18.06		13.94	-1.12	ND		ND	2.99	0.521	ND	ND		
01/02/0	32.00	18.12	'	13.88	-0.06	ND		ND	ND	ND	ND	ND		
05/23/0	32.00	16.96		15.04	1.16	ND		ND	ND	ND	ND	ND		
07/30/0	32.00	16.52		15.48	0.44	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.7		
10/15/0	32.00	16.72		15.28	-0.20	ND<50	· <u></u>	ND<0.50	0.65	ND<0.50	ND<0.50	ND<5.0		
01/14/0	32.00	14.53		17 <b>.4</b> 7	2.19	ND<50	~~	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
04/15/0	32.00	14.96		17.04	-0.43	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
07/15/0	32.00	15.60		16.40	-0.64	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	- 11		
01/18/0	32.00	14.78	<b></b> ,	17.22	0.82	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0		
02/04/0	32.00	15.65	0.00	16.35	-0.87		52	2.3	ND<0.50	ND<0.50	ND<1.0		2.4	
08/11/0	32.00	15.86	0.00	16.14	-0.21		350	ND<2.5	ND<2.5	ND<2.5	ND<5.0		310	
03/31/0	32.00	13.73	0.00	18.27	2.13		ND<2000	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2100	
09/30/0	32.00	15.94	0.00	16.06	-2.21		1200	ND<0.50	0.50	ND<0.50	ND<1.0		6900	
03/27/0	32.00	13.13	0.00	18.87	2.81		460	ND<0.50	ND<0.50	ND<0.50	ND<1.0		820	
09/27/0	32.00	16.75	0.00	15.25	-3.62		520	ND<5.0	ND<5.0	ND<5.0	8.2		870	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0752

Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ЕТВЕ	TAME	Total Oil and Grease	Chlorofor	rr Tetrachloro- ethene (PCE)	Trichloro- ethene (TCE)	Cadmium (dissolved)	Calcium	Chromium (total)
	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(mg/l)	(µg/l)	(μg/l)	(μg/l)	(mg/l)	(mg/l)	(mg/l)
MW-1				•			·				•				
06/05/91	47								'	7.8	2.9	1.3			
09/30/91	ND	'													
12/30/91	ND				- <del>-</del>				ND	6.4	2.1	0.9	ND		0.0078
04/02/92	94								ND	7.1	2.6	1.4	ND		0.015
06/30/92	120				-				ND	9.5	2.2	1.3	ND		0.079
09/15/92	ND									12	2.2	1.3			
12/21/92	ND									12	1.4	0.83			
04/28/93	470				1.1					12	0.89	0.85			
07/23/93	ND		×							16	1.3	0.91			
10/05/93	57									13	1.3	0.66			
01/03/94	ND									18	1.4	0.93			
04/02/94	ND									15	1.1	0.68			
04/10/96														21	
07/15/02		ND<5.0	ND<25	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5			'				
01/18/03														55	
07/11/03			ND<25000												
02/04/04		ND<10000	ND<50000						-			·			
08/11/04			ND<1000		·										
03/31/05			ND<2000												
09/30/05			ND<250												
03/27/06			ND<250												
09/27/06			ND<250												
MW-2															
01/03/96														27	
04/10/96														58	
07/11/03			ND<500												

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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0752

Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ЕТВЕ	TAME	Total Oil and Grease	Chloroform	Tetrachloro- ethene (PCE)	Trichloro- ethene (TCE)	Cadmium (dissolved)	Calcium	Chromium (total)
	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(mg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(mg/l)	(mg/l)	(mg/l)
	continued														
02/04/04		ND<100	ND<500												
08/11/04			ND<50							<del></del>					
03/31/05			ND<50												
09/30/05		, .	ND<250												
03/27/06	·		ND<250												
09/27/06	·		ND<250				~~					==			
MW-3															
01/03/96	<b></b> .										<u></u>		70	43	· <u></u>
02/04/04		ND<100	ND<500									·			
08/11/04			ND<20000							~=					
03/31/05	<del></del>		ND<20000										~~		
09/30/05	; <u></u>		ND<12000	'											
03/27/06	, . <u>.</u>		ND<12000												
09/27/06	·		ND<62000												
MW-4							•								
01/03/94										9.0	1.0	ND			
02/04/04		ND<2000	ND<10000		-										
08/11/04			ND<5000												
03/31/05			ND<1300												
09/30/05	i		ND<250												
03/27/06	·		ND<250												
09/27/06	·		ND<5000	~~							<del>-</del>				
MW-5															
02/04/04		ND<100	ND<500												·
08/11/04			ND<50		·								75		

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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0752

Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ЕТВЕ	TAME	Total Oil and Grease	Chloroform	Tetrachloro- ethene (PCE)	Trichloro- ethene (TCE)	Cadmium (dissolved)	Calcium	Chromium (total)
	(μg/l)	$(\mu g/l)$	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(mg/l)	(µg/l)	(μg/l)	(μg/l)	(mg/l)	(mg/l)	(mg/l)
	continued														
03/31/05			ND<50												
09/30/05			ND<250												
03/27/06			ND<250											~~	
09/27/06			ND<250		·										
MW-6															
02/04/04		ND<100	ND<500												
08/11/04			ND<5000							-					
03/31/05			ND<5000												
09/30/05			ND<250												
03/27/06			ND<250							<b></b>				·	
09/27/06			ND<6200												
MW-7															
02/04/04		ND<100	ND<500											· <u></u>	
08/11/04			ND<5000												
03/31/05			ND<5000												
09/30/05			ND<250												
03/27/06			ND<250												
09/27/06			ND<6200												
MW-8					•	٠									
01/03/94										1.5	1.2	ND			
02/04/04		ND<100	ND<500		·										
08/11/04	. <u></u>		ND<250												
03/31/05			ND<2000												
09/30/05			ND<250												
03/27/06			ND<250												
•				•											

Page 3 of 4

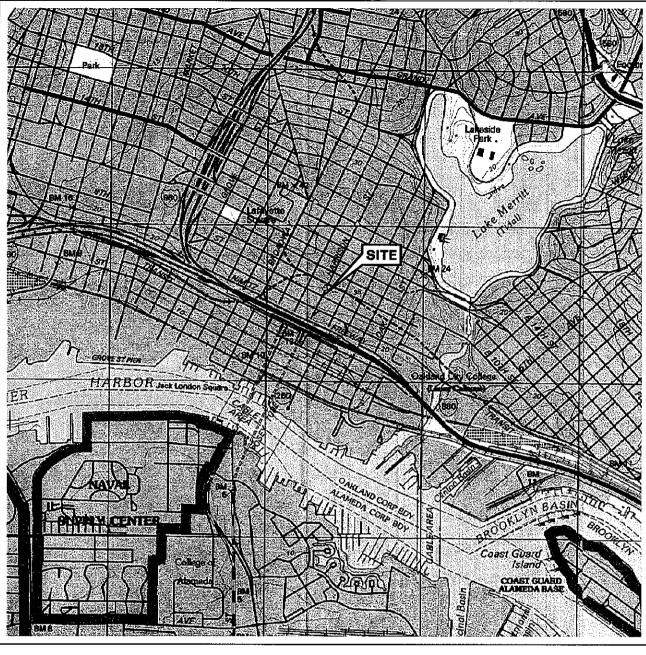
Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0752

Date Sampled	TPH-D	ТВА	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Total Oil and Grease	Chloroform Tetrachlo etheno (PCE		Cadmium (dissolved)	Calcium	Chromium (total)
	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(mg/l)	(μg/l) (μg/l)	(μg/l)	(mg/l)	(mg/l)	(mg/l)
<b>MW-8</b> 09/27/06	continued 		ND<2500						~~					_

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0752

Date Sampled	Iron (total)	Lead (total)	Manganese (dissolved)	Nickel	Zinc (dissolved	Nitrate	Sulfate	Alkalinity ( bicarb.)	Oxygen Demand (biologic)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen	
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	
MW-1												
12/30/91		0.0057		ND	0.046							•
04/02/92		0.016		ND	0.02							
06/30/92		0.009		0.1	0.087	-					. <u></u>	
04/10/96	15		2.6					160		3.04		
07/09/96										3.13	77	
01/24/97										2.56		
07/23/97			-							2.81	2.26	
01/26/98						-					3.97	
07/03/98											3.58	
MW-2						·						
01/03/96	77		3.0			0.22	97	130	2.2	1.80		
04/10/96	60		7.0					460		5.88		
07/09/96						<u>.</u>				0.71		
01/24/97										2.37		
07/23/97										0.97	1.40	
01/26/98											4.12	
07/03/98											3.99	
MW-3												
01/03/96							16			1.50		

# **FIGURES**



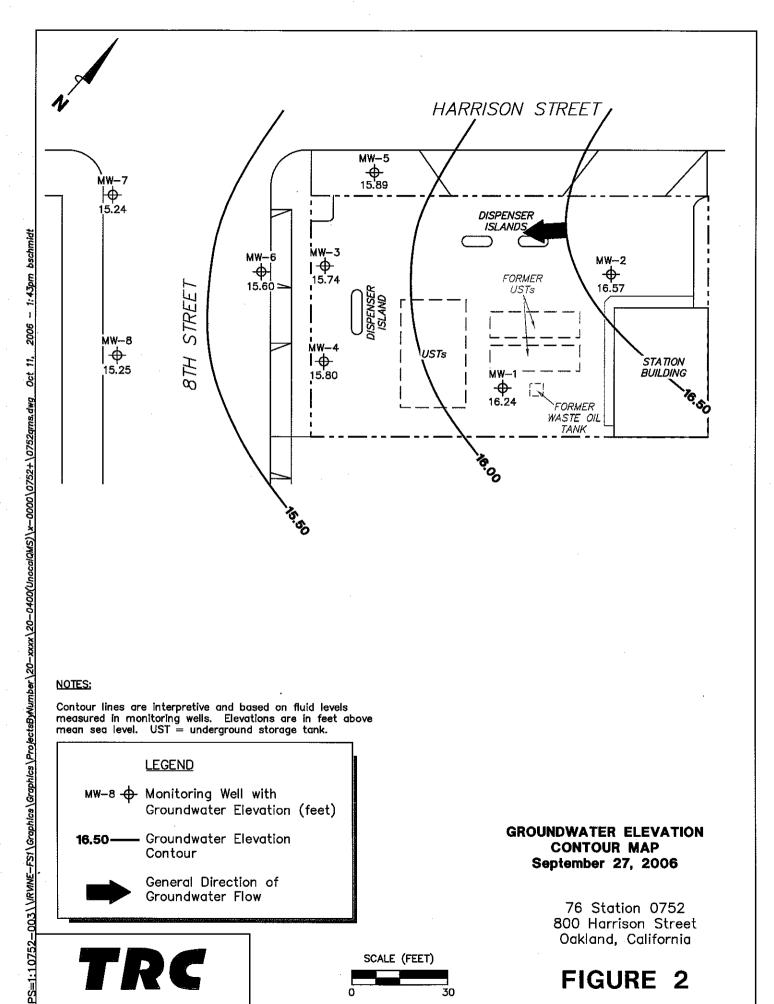
United States Geological Survey 7.5 Minute Topographic Map: Oakland East & Oakland West Quadrangles



VICINITY MAP

76 Station 0752 800 Harrison Street Oakland, California

FIGURE 1

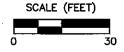


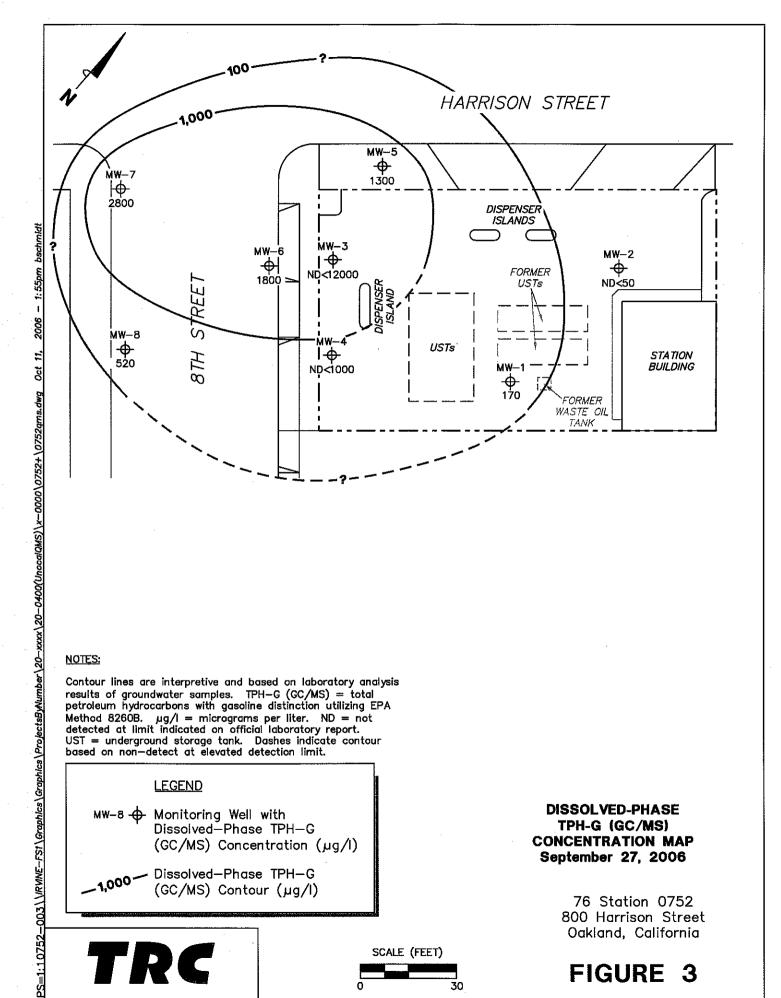
Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank.

### **LEGEND** MW-8 → Monitoring Well with Groundwater Elevation (feet) Groundwater Elevation 16.50-Contour General Direction of Groundwater Flow

**GROUNDWATER ELEVATION** CONTOUR MAP September 27, 2006

> 76 Station 0752 800 Harrison Street Oakland, California





Contour lines are interpretive and based on laboratory analysis results of groundwater samples. TPH-G (GC/MS) = total\_ petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B.  $\mu g/I = micrograms$  per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Dashes indicate contour based on non-detect at elevated detection limit.

#### **LEGEND**

MW-8 

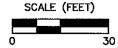
→ Monitoring Well with

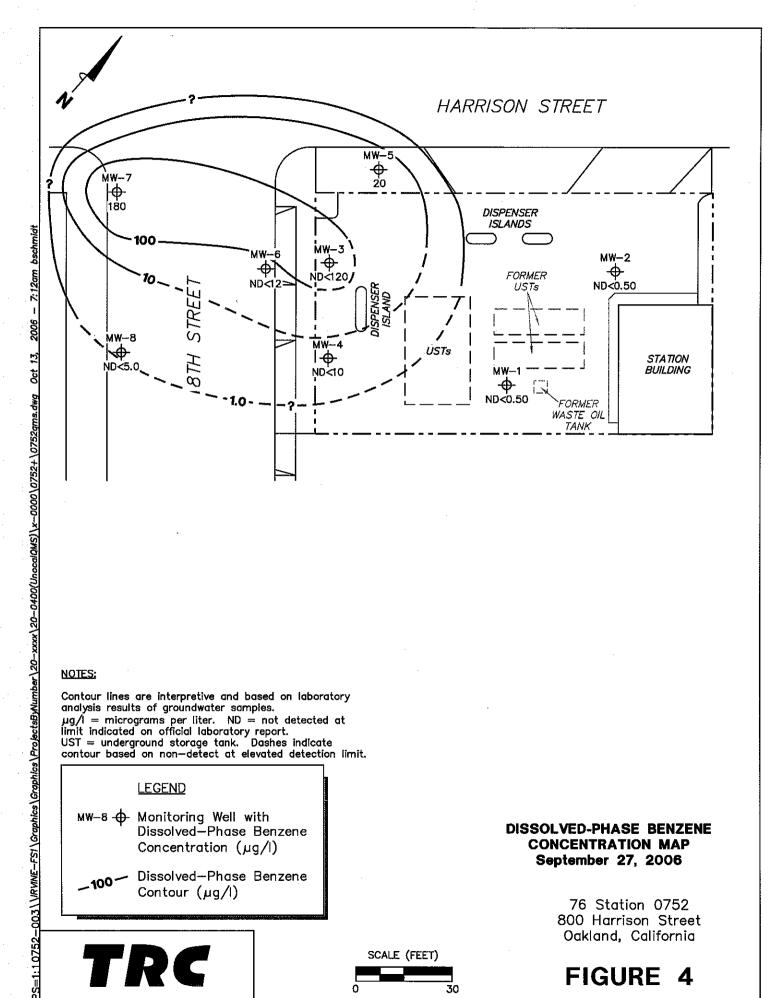
Dissolved—Phase TPH—G (GC/MS) Concentration (µg/I)

\_1,000 — Dissolved-Phase TPH-G (GC/MS) Contour (µg/I)

**DISSOLVED-PHASE** TPH-G (GC/MS) **CONCENTRATION MAP** September 27, 2006

> 76 Station 0752 800 Harrison Street Oakland, California





Contour lines are interpretive and based on laboratory analysis results of groundwater samples.  $\mu$ g/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Dashes indicate contour based on non-detect at elevated detection limit.

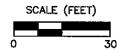
#### **LEGEND**

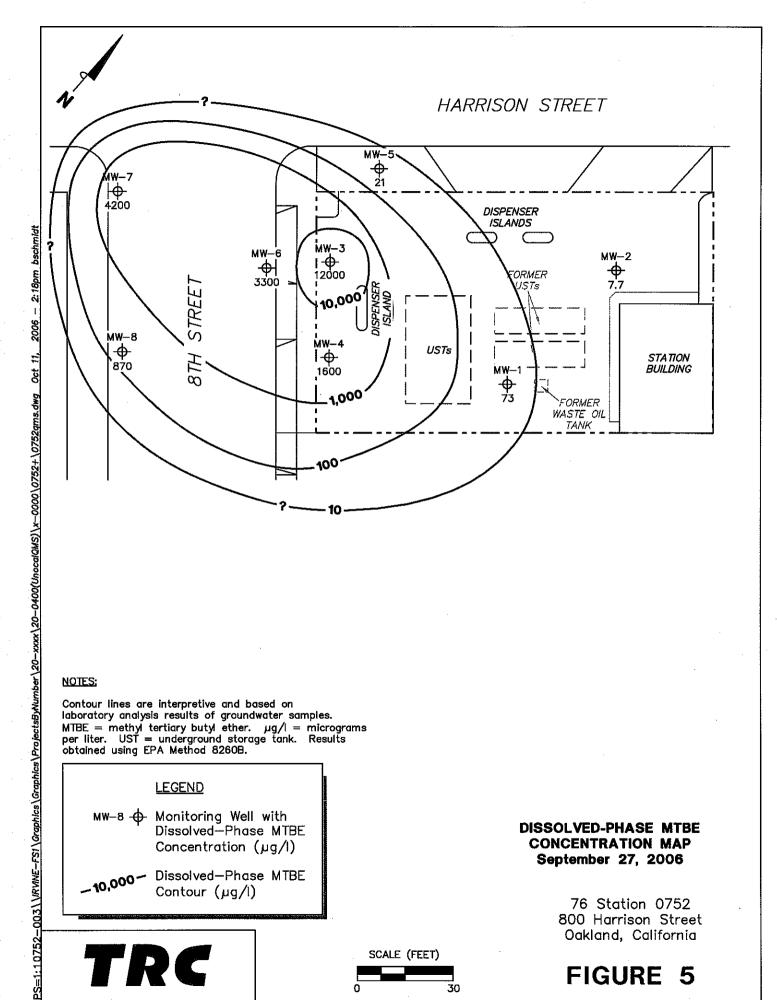
MW-8 + Monitoring Well with
Dissolved-Phase Benzene Concentration (µg/l)

Dissolved-Phase Benzene .100-Contour (µg/l)

**DISSOLVED-PHASE BENZENE CONCENTRATION MAP** September 27, 2006

> 76 Station 0752 800 Harrison Street Oakland, California





Contour lines are interpretive and based on laboratory analysis results of groundwater samples.

MTBE = methyl tertiary butyl ether. µg/l = micrograms
per liter. UST = underground storage tank. Results
obtained using EPA Method 8260B.

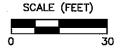
#### **LEGEND**

ww−8 + Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l)

.10,000 Dissolved-Phase MTBE Contour (µg/l)

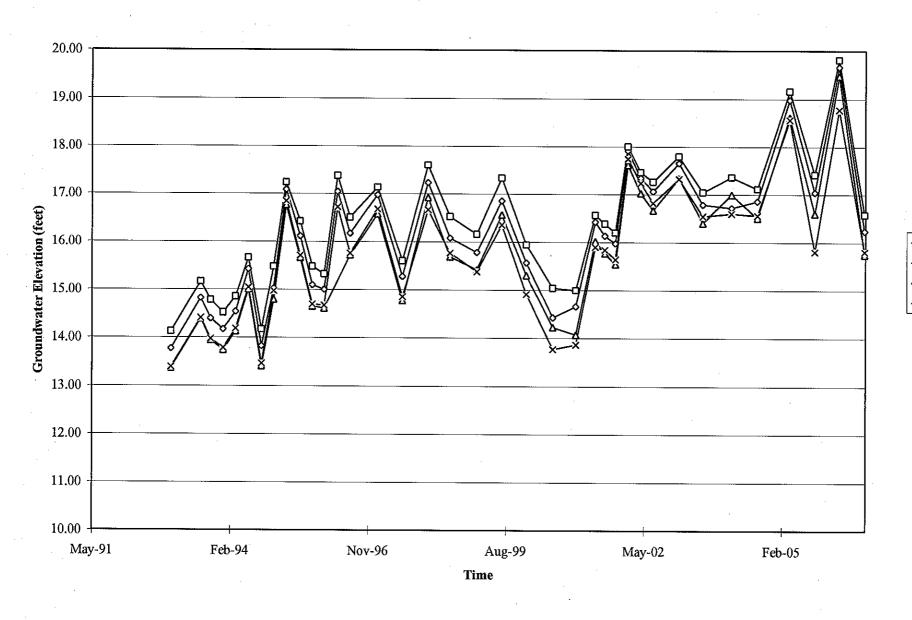
**DISSOLVED-PHASE MTBE CONCENTRATION MAP** September 27, 2006

> 76 Station 0752 800 Harrison Street Oakland, California



# GRAPHS

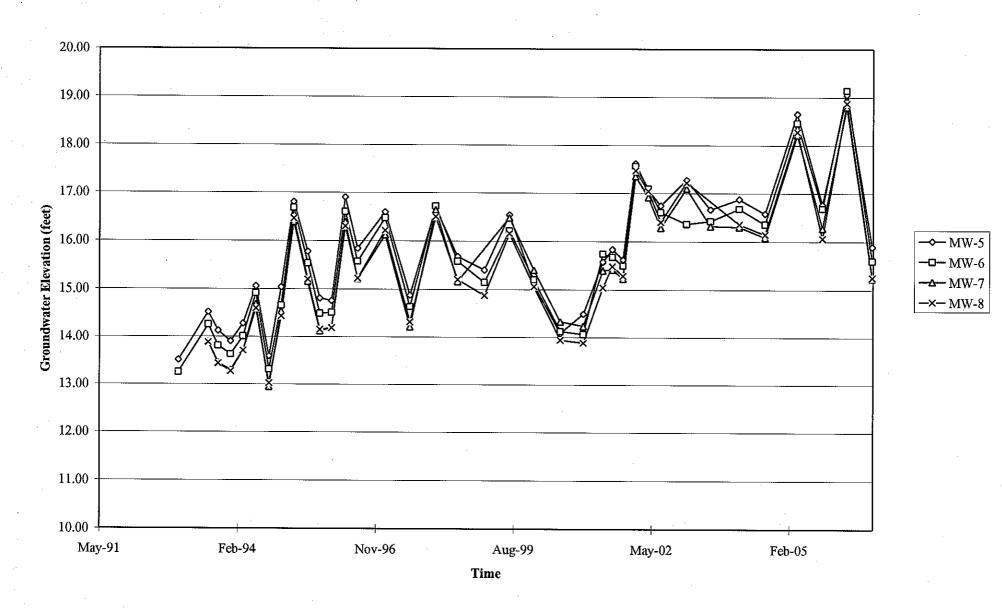
## Groundwater Elevations vs. Time 76 Station 0752



→ MW-1 → MW-2 → MW-3 →× MW-4

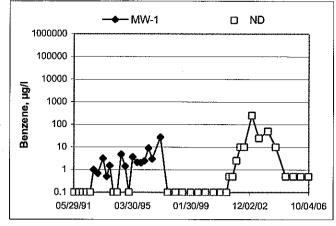
Elevations may have been corrected for apparent changes due to resurvey

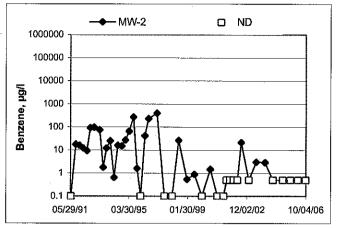
# Groundwater Elevations vs. Time 76 Station 0752

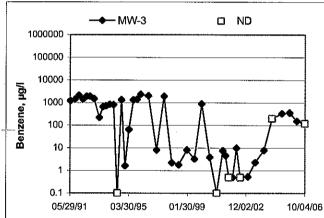


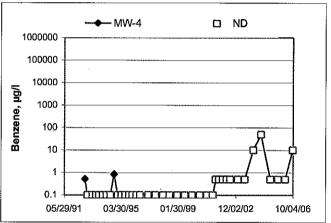
Elevations may have been corrected for apparent changes due to resurvey

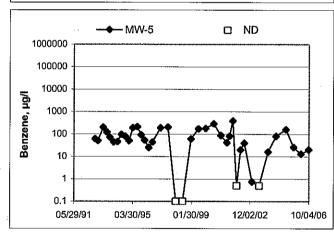
#### Benzene Concentrations vs Time 76 Station 0752

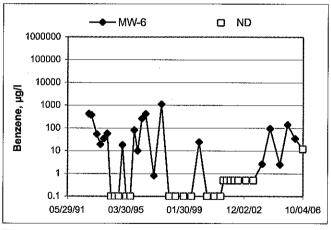


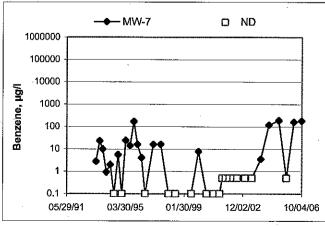


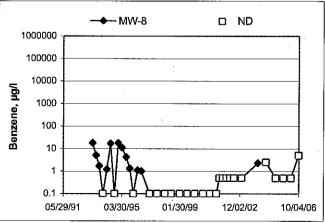












#### GENERAL FIELD PROCEDURES

#### **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: Daniel	Job #/Task#: <u>Чювого I ГРАго</u>	Date: 9/27/06
Site # 0752	Project Manager K. Wood burne	Pageof

<del></del>	<u></u>	1	T	<del>  </del>		Depth	Depth	Product		
			Time	<b></b>	Total	to Water	to Product	Thickness (feet)	Time Sampled	Misc. Well Notes
	Well #	<del></del> -	Gauged	TOC	Depth		rioduct	(1000)	0730	2"
1	NW		0503		30.37	18.15				
LV	nw	5	0509		31-71	17.06			0.753	218
L	MW	8	0516		28.49	16.75			0807	2''
	MW		0824		33.61	1			0822	7''
- 11	W.M	4	0529		32.23	16.91			0831	29
11	MW	7	05.35		31.73	16.96			0847	2"
li -	MN	6	0542		30.93	16-56			0902	2"
HT .	ทฟ		0547		30.56	17-40			0912	7'
									<u> </u>	
	-									
	····									ñ
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	<del> •</del>									
			<del>                                     </del>	<b>†</b>	1		1			
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-					_		<u> </u>			
$\parallel$	·			<del> </del>						
-	<u> </u>	·	<del>- </del>	-		_	1,			
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ļ						-}	_			
							_			
			<u> </u>			,				
	FIELD	D DA	TA COME	PLETE	QAIR	<u>%c</u>	cg	C	WELL BOX	CONDITION SHEETS
				····						
	WTT	CEF	RTIFICATI	E	MANIF	EST	DRUM	<b>N</b> VENTORY	T I	RAFFIC CONTROL **
	L					,	/			/

Technician: Danie

Site: 675	2_	Proj	ject No.: <i>L</i>	Uluboo / Date			Date:	9/27	66
Well No	nu-2	<u>-</u>	<u>.</u>	Purge Metho	od:	Dia		<del></del>	
		18:15 30.37	<del></del>		oduct (feet):	,			
Water Colu	umn (feet):	12.22		Casing Diam	er Recovered (g neter (Inches): ne (gallons):	alions):_	.e		
80% Recha	arge Depth(fe	eet): <u>20.<i>50</i></u>	<u>/</u>	1 Well Volun	ne (gallons):		<u> </u>		
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D.O.	ORP	Turbidity
0620		,	2	818.9	17-8	6.88		<del> </del>	
			4	796.7	1815	6.87			1
	0623		6	796.4	18-7	6.82			
<u> </u>			~ -						
Stat	ic at Time Sa		Tota	│ al Gallons Pur	rged		Sample	Time	
Comments	19,20	)	6			07	736		
Comments	,							1	1

Well No. Mw-5	Purge Method: Di &
Depth to Water (feet): 17.06	Depth to Product (feet):
Total Depth (feet) 31.71	LPH & Water Recovered (gallons):
Total Depth (feet) 31.7   Water Column (feet): 14.56  80% Recharge Depth(feet): 20.06	Casing Diameter (Inches): 79
oo 70 1 Coolidige Depth (ICCI). 20:06	1 Well Volume (gallons): Z

Comments	s:	· · · · · · · · · · · · · · · · · · ·					<del></del>		
	<u></u>	714	6			075	73		
Stat	lic at Time Sa		Tota	ıl Gallons Pu	rged		Sample	Time	
			<u>.</u>						
	0631		6	460.5	19.7	6-93			
·			4	480.1	19.4	6.97			
0628			2	479.9	18.8	6.89			
Time Start	- Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	pН	.D.O.	ORP	Turbidit

Technician: Dance

Project No.: 4/060001 Date: 9/27/06 Site: 0752 Well No. Purge Method: Dia Depth to Water (feet): 16.75 Depth to Product (feet): Total Depth (feet)\_\_\_ 28.49 LPH & Water Recovered (gallons): Water Column (feet): 11.74 Casing Diameter (Inches): 80% Recharge Depth(feet): 19.09 1 Well Volume (gallons):

Comments						000	1		
16.80			6			080	<u> </u>		
Sta	tic at Time Sa	ampled	Tota	l Gallons Pu	ged		Sample	Time	·
	0640		Ų	494.4	19.4	6.90			
	<u> </u>		4	549.6	19-5	6.86			
0636			7	569.3	19.0	6.86			
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D.O.	ORP	Turbidit

Well No.
MW-I

Purge Method:
Dc a

Purge Method:

Depth to Water (feet):

Depth to Product (feet):

Depth

Comments	:		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			<del> </del>	·····	
18.63		3	9			08			
Stat	ic at Time Sa		Tota	al Gallons Pur	ged		Sample	Time	•
<del> </del>	]								
						<del></del>	7.		
·	0647	· · · · · · · · · · · · · · · · · · ·	9	280,0	19.0	6.99			
		·	6	282.7	19.	690			
6644			3	225.3	18.7	77.8			
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рH	D.O.	ORP	Turbidit

Technician: Danie

Project No.: 410600 Date: 9/27/01 Site: 675 2 Well No. Mw-4 Purge Method: Depth to Water (feet): Ø Depth to Product (feet):\_ Total Depth (feet)\_ 32.23 LPH & Water Recovered (gallons): 6 Water Column (feet):\_ 15.32 7 7 Casing Diameter (Inches): 80% Recharge Depth(feet): 19-97 1 Well Volume (gallons):

Comments	s:									
16.97			9 0831							
Static at Time Sampled			Total Gallons Purged			Sample Time				
	0653		q	487.9	19.5	6.76				
			Ų	486.6	19.3	6.74				
0650			.3	481.0	18.5	6.73				
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D.O.	ORP	Turbidit	

Well No.
Mw-7
Purge Method:
Dia

Depth to Water (feet):
16.96
Depth to Product (feet):
Ø

Total Depth (feet)
31.73
LPH & Water Recovered (gallons):
Ø

Water Column (feet):
14.77
Casing Diameter (Inches):
2"

80% Recharge Depth(feet):
19.9/
1 Well Volume (gallons):
3

Comments	s:	ž*		-			<u></u>		
17.67			9			D847			
Stat	tic at Time Sa	mpled	Tota	ai Gallons Pui	ged		Sample	Time	
·									
						7:00	· -	-	
	0707		9	365.2	19.8	7.08			
			6	404.8	19.5	7.05			<u> </u>
0659			3	378-2	19.1	7.07			
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (galions)	Conduc- tivity (uS/cm)	Temperature (F,C)	pН	D.O.	ORP	Turbidi

Technician: Daniel Project No.: 4106 000 Date: 9/7 7/06 Site: 0752 Mw-6 Well No. Purge Method: Dia Depth to Water (feet): 16.5¢ Depth to Product (feet): 3093 Total Depth (feet) LPH & Water Recovered (gallons): 14.37 Water Column (feet): Casing Diameter (Inches): 80% Recharge Depth(feet): 19.43 1 Well Volume (gallons): Depth to Volume Conduc-Time Time Temperature Water Purged tivity рΗ D.O. ORP Turbidity Start Stop (F,C) (feet) (gallons) (uS/cm) 0707 2 259.5 18:4 7-19 256.1 19.2 フぬぎ 0110 261. 19.8 7.01 Static at Time Sampled **Total Gallons Purged** Sample Time 0902 16.63 Comments: Mw-3 Well No. Dia Purge Method: 17.40 Depth to Water (feet): Depth to Product (feet): 30.56 Total Depth (feet) Water Column (feet):\_\_\_ 13.16 Casing Diameter (Inches): 80% Recharge Depth(feet): 20.03 1 Well Volume (gallons): Depth to Volume Conduc-Time Time

			, as	v 34			· ·		
Comments	<u>:</u>								
	17.0	18	1 . 6			09/2			
Stati	ic at Time Sa		Tota	al Gallons Pui	ged	1.	Sample	Time	
									1
·			_						
	07/7	<del></del>	6	680.2	19.5	6.83			
			4	790.3	19.2	6.83			
6714			2	791.1	18.6	6:79			
Start	Stop	Water (feet)	Purged (gallons)	tivity (uS/cm)	(F,C)	pН	D.O.	ORP	Turbidit



Date of Report: 10/06/2006

Anju Farfan

TRC Alton Geoscience

21 Technology Drive

Irvine, CA 92618-2302

RE: 0752

BC Lab Number: 0610056

Enclosed are the results of analyses for samples received by the laboratory on 09/27/06 21:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Hooker

Client Service Rep

Authorized Signature



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

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

Laboratory	Client Sample Informat	tion	
0610056-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-1 MW-1 Daniel of TRCI	Receive Date: 09/27/06 21:05 Sampling Date: 09/27/06 08:22 Sample Depth: Sample Matrix: Water  Delivery Work Order: Global ID: T0600101486 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0610056-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-2 MW-2 Daniel of TRCI	Receive Date: 09/27/06 21:05 Delivery Work Order: Sampling Date: 09/27/06 07:30 Global ID: T0600101486 Sample Depth: Sample Matrix: Water Samle QC Type (SACode): CS Cooler ID:
0610056-03	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-3 MW-3 Daniel of TRCI	Receive Date: 09/27/06 21:05 Delivery Work Order: Sampling Date: 09/27/06 09:12 Global ID: T0600101486 Matrix: W Sample Matrix: W Samle QC Type (SACode): CS Cooler ID:
0610056-04	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-4 MW-4 Daniel of TRCI	Receive Date: 09/27/06 21:05 Delivery Work Order: Sampling Date: 09/27/06 08:31 Global ID: T0600101486 Sample Depth: Sample Matrix: Water Samle QC Type (SACode): CS Cooler ID:
0610056-05	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-5 MW-5 Daniel of TRCI	Receive Date: 09/27/06 21:05 Sampling Date: 09/27/06 07:53 Sample Depth: Sample Matrix: Water  Delivery Work Order: Global ID: T0600101486 Matrix: W Samle QC Type (SACode): CS Cooler ID:



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

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

Laboratory	Client Sample Informat	tion			
0610056-06	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-6 MW-6 Daniel of TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:		Delivery Work Order: Global ID: T0600101486 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0610056-07	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 0752 MW-7 MW-7 Daniel of TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:		Delivery Work Order: Global ID: T0600101486 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0610056-08	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	O752 MW-8 MW-8 Daniel of TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	•	Delivery Work Order: Global ID: T0600101486 Matrix: W Samle QC Type (SACode): CS Cooler ID:



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 0	610056-01	Client Sam	ole Name	: 0752, MW-1,	MW-1, 9/27	/2006 8	:22:00AM, Dai	niel				· · · · · ·	
Constituent		Result	Units	PQL MDL	Method	Prep Date	Run Date/Time	Analyst	Instru- ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene		ND	ug/L	0.50	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	
Ethylbenzene		ND	ug/L	0.50	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	
Methyl t-butyl ether		73	ug/L	0.50	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	
Toluene		ND	ug/L	0.50	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	
Total Xylenes		0.61	ug/L	0.50	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	
Ethanol		ND	ug/L	250	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	V11
Total Purgeable Petroleu Hydrocarbons	ım	170	ug/L	50	EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	ND	
1,2-Dichloroethane-d4 (S	Surrogate)	105	%	76 - 114 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	.,	
Toluene-d8 (Surrogate)		96.7	%	88 - 110 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192		
4-Bromofluorobenzene (	Surrogate)	107	%	86 - 115 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 11:21	SDU	MS-V10	1	BPJ0192	•	



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 0610056	3-02	Client Sam	ole Nam	e: 0752, N	W-2, N	IW-2, 9/27.	/2006 7:	:30:00AM, Dar	niel					
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quais
Benzene		ND	ug/L	0.50		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	
Ethylbenzene		ND	ug/L	0.50		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	
Methyl t-butyl ether		7.7	ug/L	0.50		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	
Toluene		ND	ug/L	0.50		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	
Total Xylenes		ND	ug/L	0.50		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	
Ethanol		ND	ug/L	250		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	
Total Purgeable Petroleum Hydrocarbons		ND	ug/L	50		EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192	ND	A53
1,2-Dichloroethane-d4 (Surrogate	)	102	%	76 - 114 (LC	L - UCL)	EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192		
Toluene-d8 (Surrogate)		97.9	%	88 - 110 (LC	L - UCL)	EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192		· · ·
4-Bromofluorobenzene (Surrogate	e)	101	%	86 - 115 (LC	L - UCL)	EPA-8260	10/02/06	10/04/06 01:59	SDU	MS-V10	1	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 06	10056-03	Client Sam	ple Name	e: 0752, MV	V-3, M	IW-3, 9/27	/2006 9:	12:00AM, Dar	iel					
Constituent		Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru- ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene		ND	ug/L	120		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ND	A01
Ethylbenzene		ND	ug/L	120		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ND	A01
Methyl t-butyl ether		12000	ug/L	120		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ND	A01
Toluene		ND	ug/L	120		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ND	A01
Total Xylenes		ND	ug/L	120		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ND	A01
Ethanol		ND	ug/L	62000		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ND	A01
Total Purgeable Petroleum Hydrocarbons	1	ND	ug/L	12000		EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192	ŃD	A01, A53
1,2-Dichloroethane-d4 (Su	rrogate)	99.2	%	76 - 114 (LCL	- UCL)	EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192		
Toluene-d8 (Surrogate)		96.5	%	88 - 110 (LCL	- UCL)	EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192		
4-Bromofluorobenzene (St	urrogate)	103	%	86 - 115 (LCL	- UCL)	EPA-8260	10/02/06	10/03/06 19:35	SDU	MS-V10	250	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID:	0610056-04	Client Sam	ple Nam	e: 0752, MW-4,	MW-4, 9/27	/2006 8	:31:00AM, Dai	niel					
Constituent		Result	Units	PQL MDI	- Method	Prep Date	Run Date/Time	Analyst	Instru- ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene		ND	ug/L	10	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01
Ethylbenzene		ND	ug/L	10	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01
Methyl t-butyl ether		1600	ug/L	10	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01
Toluene		ND	ug/L	10	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01
Total Xylenes		ND	ug/L	10	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01
Ethanol-		ND	ug/L	5000	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01
Total Purgeable Petrol Hydrocarbons	eum	ND	ug/L	1000	EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192	ND	A01, A53
1,2-Dichloroethane-d4	(Surrogate)	97.6	%	76 - 114 (LCL - UC	L) EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192		
Toluene-d8 (Surrogate	·)	94.5	%	88 - 110 (LCL - UC	L) EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192		
4-Bromofluorobenzene	(Surrogate)	103	%	86 - 115 (LCL - UC	L) EPA-8260	10/02/06	10/03/06 18:20	SDU	MS-V10	20	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 061	0056-05	Client Sam	ple Nam	e: 0752, MW-5,	VIVV-5, 9/27	/2006 7	:53:00AM, Dar	niel				· .	
Constituent		Result	Units	PQL MDL	Method	Prep Date	Run Date/Time	Analyst	Instru- ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene		20	ug/L	0.50	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
Ethylbenzene		2.3	ug/L	0.50	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
Methyl t-butyl ether		21	ug/L	0.50	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
Toluene		11	ug/L	0.50	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
Total Xylenes		15	ug/L	0.50	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
Ethanol		ND	ug/L	250	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
Total Purgeable Petroleum Hydrocarbons		1300	ug/L	50	EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192	ND	
1,2-Dichloroethane-d4 (Surre	ogate)	106	%	76 - 114 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192		
Toluene-d8 (Surrogate)		99.1	%	88 - 110 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192		
4-Bromofluorobenzene (Suri	ogate)	107	%	86 - 115 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 02:23	SDU	MS-V10	1	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 0610056-06	Client Sam	ple Nam	e: 0752, MW-6, N	/IW-6, 9/27	/2006 9:	02:00AM, Dar	niel					
	-				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	12	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192	ND	A01
Ethylbenzene	ND	ug/L	12	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192	ND	A01
Methyl t-butyl ether	3300	ug/L	25	EPA-8260	10/02/06	10/04/06 12:11	SDU	MS-V10	50	BPJ0192	ND	A01
Toluene	ND	ug/L	12	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192	ND	A01
Total Xylenes	ND	ug/L	12	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192	ND	A01
Ethanol	ND	ug/L	6200	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192	ND	A01
Total Purgeable Petroleum Hydrocarbons	1800	ug/L	1200	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192	ND	A01, A53
1,2-Dichloroethane-d4 (Surrogate)	99.7	%	76 - 114 (LCL - UCL)	EPA-8260	10/02/06	10/04/06 12:11	SDU	MS-V10	50	BPJ0192		
1,2-Dichloroethane-d4 (Surrogate)	99.6	%	76 - 114 (LCL - UCL)	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192		
Toluene-d8 (Surrogate)	94.0	%	88 - 110 (LCL - UCL)	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192		
Toluene-d8 (Surrogate)	98.9	%	88 - 110 (LCL - UCL)	EPA-8260	10/02/06	10/04/06 12:11	SDU	MS-V10	50	BPJ0192		
4-Bromofluorobenzene (Surrogate)	104	%	86 - 115 (LCL - UCL)	EPA-8260	10/02/06	10/03/06 19:10	SDU	MS-V10	25	BPJ0192		
4-Bromofluorobenzene (Surrogate)	105	%	86 - 115 (LCL - UCL)	EPA-8260	10/02/06	10/04/06 12:11	SDU	MS-V10	50	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 0610056-0	7 Client Sam	ple Nam	e: 0752, MW-7,	VIW-7, 9/27	/2006 8:	:47:00AM, Dat	niel					
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	180	ug/L	12	EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192	ND	A01
Ethylbenzene	15	ug/L	12	EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192	ND	A01
Methyl t-butyl ether	4200	ug/L	50	EPA-8260	10/02/06	10/04/06 11:46	SDU	MS-V10	100	BPJ0192	ND	A01
Toluene	ND	ug/L	12	EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192	ND	A01
Total Xylenes	44	ug/L	12	EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192	ND	A01
Ethanol	ND	ug/L	6200	EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192	ND	A01
Total Purgeable Petroleum Hydrocarbons	2800	ug/L	1200	EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 11:46	SDU	MS-V10	100	BPJ0192		
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL	) EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192		•
Toluene-d8 (Surrogate)	94.1	%	88 - 110 (LCL - UCL	) EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192		
Toluene-d8 (Surrogate)	98.1	%	88 - 110 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 11:46	SDU	MS-V10	100	BPJ0192		
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - UCL	) EPA-8260	10/02/06	10/04/06 11:46	SDU	MS-V10	100	BPJ0192		
4-Bromofluorobenzene (Surrogate)	105	%	86 - 115 (LCL - UCL	) EPA-8260	10/02/06	10/03/06 18:45	SDU	MS-V10	25	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

BCL Sample ID: 0610056-0	8 Client Sam	ple Nam	e: 0752, MW-8,	MW-8, 9/27	/2006 8	:07:00AM, Dat	niel					
					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	5.0	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND	A01
Ethylbenzene	ND	ug/L	5.0	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND	A01
Methyl t-butyl ether	870	ug/L	5.0	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND .	A01
Toluene	ND	ug/L	5.0	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND	A01
Total Xylenes	8.2	ug/L	5.0	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND	A01
Ethanol	ND	ug/L	2500	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND	A01
Total Purgeable Petroleum Hydrocarbons	520	ug/L	500	EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192	ND	A01, A53
1,2-Dichloroethane-d4 (Surrogate)	98.1	%	76 - 114 (LCL - UC	L) EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192		· · ·
Toluene-d8 (Surrogate)	93.7	%	88 - 110 (LCL - UC	L) EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192		
4-Bromofluorobenzene (Surrogate)	105	%	86 - 115 (LCL - UC	L) EPA-8260	10/02/06	10/03/06 17:30	SDU	MS-V10	10	BPJ0192		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

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

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

,										Contr	ol Limits
Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery Lab Quals
Benzene	BPJ0192	Matrix Spike	0609975-04	ND	22.170	25.000	ug/L		88.7		70 - 130
		Matrix Spike Duplicate	0609975-04	ND	26.320	25.000	ug/L	16.8	105	20	70 - 130
Toluene	BPJ0192	Matrix Spike	0609975-04	ND	20.660	25.000	ug/L		82.6		70 - 130
		Matrix Spike Duplicate	0609975-04	ND	25.260	25.000	ug/L	20.0	101	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BPJ0192	Matrix Spike	0609975-04	ND	10.250	10.000	ug/L		102		76 - 114
		Matrix Spike Duplicate	0609975-04	ND	10.340	10.000	ug/L		103		76 - 114
Toluene-d8 (Surrogate)	BPJ0192	Matrix Spike	0609975-04	ND	9.7100	10.000	ug/L		97.1		88 - 110
		Matrix Spike Duplicate	0609975-04	ND	9.8600	10.000	ug/L		98.6		88 - 110
4-Bromofluorobenzene (Surrogate)	BPJ0192	Matrix Spike	0609975-04	ND	10.050	10.000	ug/L		100		86 - 115
		Matrix Spike Duplicate	0609975-04	ND	10.100	10.000	ug/L		10 <b>1</b>		86 - 115



TRC Alton Geoscience

Project: 0752

21 Technology Drive Irvine CA, 92618-2302 Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 14:03

### Volatile Organic Analysis (EPA Method 8260)

**Quality Control Report - Laboratory Control Sample** 

									<u>Control</u>	Limits	_
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals
Benzene	BPJ0192	BPJ0192-BS1	LCS	24.390	25.000	0.50	ug/L	97.6	70 - 130	•	
Toluene	BPJ0192	BPJ0192-BS1	LCS	22.940	25.000	0.50	ug/L	91.8	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BPJ0192	BPJ0192-BS1	LCS	10.160	10.000		ug/L	102	76 - 114		
Toluene-d8 (Surrogate)	BPJ0192	BPJ0192-BS1	LCS	9.6000	10.000		ug/L	96.0	88 - 110		
4-Bromofluorobenzene (Surrogate)	BPJ0192	BPJ0192-BS1	LCS	10.300	10.000	;	ug/L	103	86 - 115		



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/06/06 14:03

### **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	BPJ0192	BPJ0192-BLK1	ND	ug/L	0.50	0.14	
Ethylbenzene	BPJ0192	BPJ0192-BLK1	ND	ug/L	0.50	0.094	
Methyl t-butyl ether	BPJ0192	BPJ0192-BLK1	ND	ug/L	0.50	0.13	<del></del>
Toluene	BPJ0192	BPJ0192-BLK1	ND	ug/L	0.50	0.12	
Total Xylenes	BPJ0192	BPJ0192-BLK1	ND	ug/L	0.50	0.31	
Ethanol	BPJ0192	BPJ0192-BLK1	ND	ug/L	250	85	
Total Purgeable Petroleum Hydrocarbons	BPJ0192	BPJ0192-BLK1	ND	ug/L	50	16	
1,2-Dichloroethane-d4 (Surrogate)	BPJ0192	BPJ0192-BLK1	97.3	%	76 - 114 (I	LCL - UCL)	
Toluene-d8 (Surrogate)	BPJ0192	BPJ0192-BLK1	97.9	%	88 - 110 (I	LCL - UCL)	,
4-Bromofluorobenzene (Surrogate)	BPJ0192	BPJ0192-BLK1	98.2	%	86 - 115 (I	LCL - UCL)	



Project: 0752

Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/06/06 14:03

#### **Notes and Definitions**

V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.

J Estimated value

A53 Chromatogram not typical of gasoline.

A01 PQL's and MDL's 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 01/2	1/04	Page	Of
Submission #: 06-1056	F	Project C	ode:			ТВ	Batch #			
SHIPPING INFO						<del></del>	NG CON	ΓΔINER		
Federal Express  UPS  BC Lab Field Service  Other				Ì	Ice Ches			ne 🗆		
BC Lab Field Service  Other	☐ (Specif	y)		Ĭ	Box	. 0	Oth	er 🗆 (Sp	ecify)	
Refrigerant: Ice 년 Blue Ice E	] None	e 🗆 💢	ther 🗆	Comme	ents:					
Custody Seals: Ice Chest  Intect? Yes I No I	Containe	ers 🗌	None ⊡	Comm	ents:			•		
All samples received? Yes 🗗 No 🛘			rs intact? Y	es 🖫 No	0	Descript	tion(s) matc	h COC? \	es 🗗 No	0
ÇOC Received			hest ID	AW	Emis	sivity (	0-9P	Date/T	ime	27/06
☐ YES ☐ NO	1	Tempe Thermome	rature:		Cont	ainer <u> </u>	<del>th</del>		t Init _O	<b>_</b>
The state of the s	<del></del>	tnermome	ter ID:	#48				Altalys	. m	U_
SAMPLE CONTAINERS		1	1	[	SAMPLE		T 7		<del>,                                      </del>	
QT GENERAL MINERAL/ GENERAL PHYSICAL	1	2	3	44	5	6	7	8	9	10
PT PE UNPRESERVED										<del> </del>
OT INORGANIC CHEMICAL METALS										<del>                                     </del>
PT INORGANIC CHEMICAL METALS	l			-						
PT CYANIDE								<del></del>		<del>                                     </del>
PT NITROGEN FORMS										<del> </del>
PT TOTAL SULFIDE						-		··· ··· · · · · · · · · · · · · · · ·		
201 NITRATE / NITRITE									l	<del>                                     </del>
100ml TOTAL ORGANIC CARBON										
OT TOX										<del> </del>
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK						-				
40ml VOA VIAL	A 3	A-31	A.3.	A:3	A3.	A.3.	A.J.	A.Z.	,	
OT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										-
BACTERIOLOGICAL										
0 ml VOA VIAL- 504										
OT EPA 508/608/8080				,						
OT EPA 515,1/8150										
OT EPA 525		<u>`</u>								ļ <u>.</u>
OT EPA 525 TRAVEL BLANK										<u> </u>
00ml EPA 547										ļ
00ml EPA 531.1				· ·						 
T EPA 548										
T EPA 549										
T EPA 632			<u>-</u>							
T EPA 8015M							<u></u>			
T QA/QC										
TAMBER										<del></del>
OZ. JAR										
OZ. JAR										· 
DIL SLEEVE										<del></del>
CB VIAL										
ASTIC BAG		<del></del>					<del></del>			
CRROUS IRON								·		
CORE						<u> </u>	<u>†</u>			
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### BC LABORATORIES, INC.

4100 Atlas Court □ Bakersfield, CA 93308 (661) 327-4911 □ FAX (661) 327-1918

### **CHAIN OF CUSTODY**

	- DL::: CO / 11-51		<u># 86-7005</u>	MATRIX					Re		81001119			
Circle one: Phillips 66 / Unocal Address: .800 Harrison St.  City: Oakland  State: CA Zip:		Consultant Firm: TRC  21 Technology Drive Irvine, CA 92618-2302 Attn: Anju Farfan  4-digit site#: 0752  Work Order# 1086TRC502  Project #: 41060001/FA20		(GW) Ground- water (S) Soil (WW) Waste- water (SL) Sludge	, Gas by 8015			8260 full list w/ MTBE & oxygenates	BTEX/MTBE BY 8260B	ETHANOL by 8260B	g by GC/MS			Requested
					by 8021B,		y 8015					8260B		Time Red
					BTEX/MTBE by		TPH DIESEL by 8015					by		nd Ti
COP Manager: Shelby Lathrop		Sampler Name: Danie										EDC		arou
Lab#	Sample Description	Field Point Name	Date & Time Sampled		BTEX	TPH	TPH	8260	BTEX	ЕТН	TPH-g by	EDB/EDC		Turnaround
	BY DISTRIBUTION	MW-1 _ (	9/27/06 0822	GW					Х	Х	Х			STI
CHK	O WELL	MW-2 − 2	0730	GW					Х	Х	Х			STI
LQ	SUB-OUT I	MW-3 -3	0912	GW					Х	Х	Х			STI
**  =	A STATE OF THE STA	MW-4 -4	0831	GW					Х	Х	Х			STI
		MW-5 ~ 5	0753	GW					Х	Х	Х			STI
		MW-6 ~(	0902	GW					Х	Х	Х			STI
		MW-7 - 7	0847	GW					Х	Х	Х			STE
		MW-8 − <i>₹</i>	0807	GW					Х	Х	Х			ST
Comments:		Relinquished by:	Relinquished by:			Received by:					Date & Time: 9/27/86 //00  Date & Time: 9/27/66 / You			
		Relinquished by (S	Relinquished by (Signature): De D. Seum			Received by:								
Global ID: T0600101486		Relinquished by (S	Relinquished by (Signature): Residual Planton Company (Signature): Res			Received by:					Date & Time: 9/27/06 /755			

#### 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 Re finery 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, I nc.

#### 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 accord ance 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.