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By dehloptoxic at 2:21 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# 3538
411 W. MacArthur Boulevard
Oakland, CA

Dear Mr. Hwang:

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

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

Shelby S. Lathrop (Contractor) ConocoPhillips Risk Management & Remediation 76 Broadway Sacramento, CA 95818

Phone: 916-558-7609 Fax: 916-558-7639

Sincerely,

Thomas Kosel

Risk Management & Remediation

m H. Koal

Attachment



October 30, 2006

TRC Project No. 42014212

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

76 Service Station #3538, 411 W. MacArthur Boulevard, 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, a former Tosco (76) service station located on the southwest corner of MacArthur Boulevard and Webster Street in Oakland, California. The site is currently a used car sales lot and is entirely fenced. All petroleum storage and dispensing equipment were removed in September of 1998 during station demolition activities. Six groundwater-monitoring wells are present at and in the site vicinity.

#### PREVIOUS ASSESSMENTS

July 1989: One 10,000-gallon and one 12,000-gallon gasoline underground storage tanks (USTs) were removed and replaced with two new 12,000-gallon USTs. One 550-gallon waste oil UST and associated piping for all three tanks were also removed. No holes or cracks were observed in the gasoline USTs; however, holes were observed in the waste oil UST. Groundwater was encountered in the former UST pit at a depth of approximately 10.5 feet below ground surface (bgs), which prohibited the collection of soil samples below the former gasoline tanks. Confirmation soil samples from the sidewalls contained moderate maximum concentrations of total petroleum hydrocarbons as gasoline (TPH-g), and low maximum concentrations of benzene. These sample areas were subsequently removed during overexcavation. Soil samples from the base of the waste oil UST pit were non-detect for TPH-g and benzene, toluene, ethylbenzene, and xylenes (BTEX).

September 1989: Karpealian Engineering, Inc. (KEI) installed four groundwater monitoring wells at the site. The four wells were installed to depths of approximately 30 feet bgs.

November 1992: Two additional groundwater monitoring wells were installed offsite to a depth of 30 feet bgs.

QSR – Third Quarter 2006 76 Service Station #3538, Oakland, California October 30, 2006 Page 2

September 1998: Two 12,000-gallon gasoline USTs and associated product piping and dispensers were removed from the site during station demolition activities. No holes or cracks were observed in the tanks. Confirmation soil samples contained low maximum concentrations of TPH-g and benzene, and methyl tertiary butyl ether (MTBE) was not detected.

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

March 27 and 28, 2006: TRC conducted additional soil and groundwater assessment at the Site. The investigation involved the advancement of three onsite soil boring (SB-3, SB-4, and SB5) and two offsite soil borings (SB-1 and SB-2) to sufficient depth to obtain representative groundwater samples (approximately 16 feet bgs)

#### SENSITIVE RECEPTORS

A sensitive receptor survey conducted at the site. According to the California Department of Water Resources (DWR) records, no water supply wells located within 2,000 feet of the site. The nearest well identified was a private water well located approximately 2,500 feet east-southeast of the site.

#### MONITORING AND SAMPLING

Currently, two wells (MW-2 and MW-3) are monitored semi-annually and four wells are monitored annually. Six wells were gauged and sampled this quarter. The groundwater gradient flow direction is toward the west at a calculated hydraulic gradient of 0.02 feet per foot. A graph of historical groundwater flow directions is included in this report.

#### CHARACTERIZATION STATUS

TPH-g was detected in one of six wells sampled at a concentration of 51 micrograms per liter  $(\mu g/l)$  in onsite well MW-3. Benzene was detected in one of six wells sampled at a concentration of 1.2  $\mu g/l$  in onsite well MW-2. MTBE was detected in one of six wells sampled at a concentration of 41  $\mu g/l$  in onsite well MW-3. Currently, the dissolved-phase plume is not defined to the south-southeast.

#### REMEDIATION STATUS

October 1998: A total of 516.44 tons (approximately 380 cubic yards) of soil generated during station demolition was transported from the site to Forward Landfill in Manteca, California for disposal.

Remediation is not currently being conducted at the site.



QSR – Third Quarter 2006 76 Service Station #3538, Oakland, California October 30, 2006 Page 3

#### RECENT CORRESPONDENCE

No correspondence this quarter.

#### **CURRENT QUARTER ACTIVITIES**

September 26, 2006: TRC performed groundwater monitoring and sampling this quarter. 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

Based on the results of the additional soil and groundwater investigation, TRC recommended installation of two offsite monitoring well along the east and west side of Webster Street in the vicinity and slightly downgradient of boring SB-1 to monitor the current dissolved-phase plume and to provide a monitoring point for evaluating plume stability.

TRC will also prepare a Site Conceptual Model (SCM), per Alameda County guidance for electronic report submittal, to summarize site conditions and evaluate path forward. TRC will include a work plan for the offsite well installation as an attachment to the electronic SCM.

Based on information presented in the upcoming SCM, and on subsequent groundwater monitoring data from the proposed offsite wells, TRC may recommend site closure after several quarters of monitoring if the plume appears stable and remains defined within the monitoring well network.

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

Sincerely,

TRC

Keith Woodburne, P.G.

Senior Project Manager

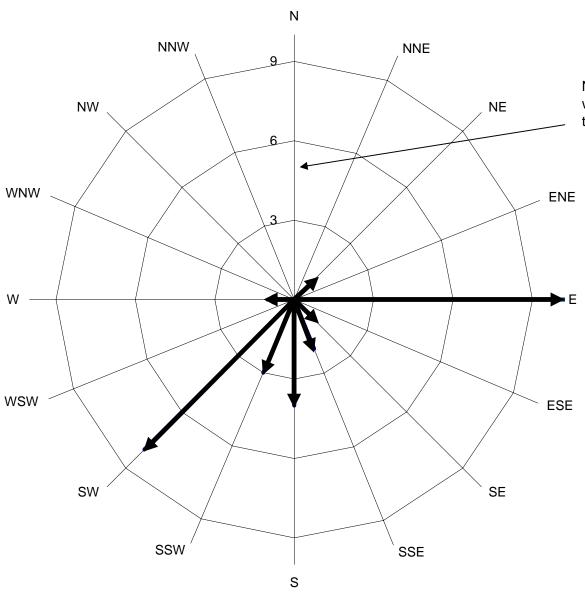
Attachments:

Semi-Annual Monitoring Report, April 2006 through September 2006 (TRC, October 13, 2006) Historical Groundwater Flow Directions – February 1990 through September 2006

cc: Shelby Lathrop, ConocoPhillips (electronic upload only)



#### Historical Groundwater Flow Directions for Tosco (76) Service Station No. 3538 February 1990 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, CA 95818

ATTN:

MS. SHELBY LATHROP

SITE:

FORMER 76 STATION 3538

411 WEST MACARTHUR BLVD.

OAKLAND, CALIFORNIA

RE:

SEMI-ANNUAL MONITORING REPORT

APRIL THROUGH SEPTEMBER 2006

Dear Ms. Lathrop:

Please find enclosed our Semi-Annual Monitoring Report for Former 76 Station 3538, located at 411 West MacArthur Blvd, 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 20-0400/3538R06.QMS



#### SEMI-ANNUAL MONITORING REPORT APRIL THROUGH SEPTEMBER 2006

FORMER 76 STATION 3538 411 West MacArthur Blvd. Oakland, California

Prepared For:

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

By:

Mo. EG 1034

Exp. 47

FOR CALIFORNIA

CONTROL

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Senior Project Geologist, Irvine Operations October 13, 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 1b: 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 Table 2c: Additional Historic Analytical Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase TPH-G 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 Sheets – 09/26/06 Groundwater Sampling Field Notes – 09/26/06
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

# Summary of Gauging and Sampling Activities April 2006 through September 2006 Former 76 Station 3538 411 West MacArthur Blvd. Oakland, CA

Project Coordinator:	Shelby Lathrop 916-588-7609				g Contracto <b>Christina</b>		-
Date(s) of Gauging/S			Comp	iicu by.	Cili iStilla	Carrino	
Sample Points							
Groundwater wells: Purging method: <b>Ba</b> Purge water disposal Other Sample Points	: Onyx/Rodeo l		Wells g	gauged: (	<b>5</b> Wells	sampled: (	5
<b>Liquid Phase Hydr</b>	ocarbons (LPH)						
Wells with LPH: <b>0</b> LPH removal frequen Treatment or disposa	•	, ,	-	thod: <b>n/</b>	a		
Hydrogeologic Par	ameters						
	r elevation (relativ roundwater elevat	e to available ion since pre flow direction	vious event n:	ım): <b>54.</b> 0	09 feet	17.91 fee	t
Selected Laborato	ry Results						
Wells with detected I Maximum reporte	Benzene: 1 d benzene concer		Wells above 2 µg/l (MV	-	0 μg/l): <b>1</b>		
Wells with <b>TPH-G</b> Wells with <b>MTBE</b>	1 1		Maximum: Maximum:		• •	. •	
Notes:				e.			

## 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 Former 76 Station 3538 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

#### **Contents of Tables** Site: Former 76 Station 3538

Current E	vent				4										•	
Table 1	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)			Comments	i
Table 1a	Well/ Date	1,2-DCA (EDC)	Bromo- dichloro- methane	Bromo- form	Bromo- methane	Carbon Tertra- chloride	Chloro- benzene	Chloro- ethane	Chloroform	Chloro- methane	Dibromo- chloro- methane	1,2- Dichloro- benzene	1,3- Dichloro- benzene	1,4- Dichloro- benzene	Dichloro- difluoro- methane	1,1-DCA
Table 1b	Well/ Date	1,1-DCE	cis- 1,2- DCE	trans- 1,2- DCE	1,2- Dichloro- propane	cis-1,3- Dichloro- propene	trans-1,3- Dichloro- propene	Methylene chloride	1,1,2,2- Tetrachloro - ethane	Tetrachloro - ethene (PCE)	Trichloro- trifluoro- ethane	1,1,1- Trichloro- ethane	1,1,2- Trichloro- ethane	Trichloro- ethene (TCE)	Trichloro- fluoro- methane	Vinyl chloride
Historic D	ata															
Table 2	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)			Comments	i
Table 2a	Well/ Date	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Total Oil and Grease	Bromo- dichloro- methane	Bromo- form	Bromo- methane	Carbon Tertra- chloride	Chloro- benzene	Chloro- ethane
Table 2b	Well/ Date	Chloroform	Chloro- methane	Dibromo- chloro- methane	1,2- Dichloro- benzene	1,3- Dichloro- benzene	1,4- Dichloro- benzene	Dichloro- difluoro- methane	1,1-DCA	1,1-DCE	cis- 1,2- DCE	trans- 1,2- DCE	1,2- Dichloro- propane	cis-1,3- Dichloro- propene	trans-1,3- Dichloro- propene	Methylene chloride
Table 2c	Well/ Date	1,1,2,2- Tetrachloro - ethane	Tetrachloro - ethene (PCE)	Trichloro- trifluoro- ethane	1,1,1- Trichloro- ethane	1,1,2- Trichloro- ethane	Trichloro- ethene (TCE)	Trichloro- fluoro- methane	Vinyl chloride			٠				

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 26, 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		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)		
<b>MW-1</b> 09/26/00	6 72.12	17.90	0.00	54.22	'na	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60				
<b>MW-2</b> 09/26/00	6 71.34	17.91	0.00	53.43	-1.17	ND<50	1.2	ND<0.30	ND<0.30	ND<0.60	ND<1.0			
<b>MW-3</b> 09/26/00	6 71.40	17.77	0.00	53.63	-1.16	51	ND<0.30	ND<0.30	ND<0.30	ND<0.60	41			
<b>MW-4</b> 09/26/00	6 71.54	17.71	0.00	53.83		ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0			
<b>MW-5</b> 09/26/00	6 71.16	15.54	0.00	55.62	0.83	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0			
<b>MW-6</b> 09/26/00	6 71.37	17.58	0.00	53.79	-1.03	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0			

Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	1,2-DCA (EDC)	Bromo- dichloro- methane	Bromo- form	Bromo- methane	Carbon Tertra- chloride	Chloro- benzene	Chloro- ethane	Chloroform	Chloro- methane	Dibromo- chloro- methane	1,2- Dichloro- benzene	1,3- Dichloro- benzene	1,4- Dichloro- benzene	Dichloro- difluoro- methane	1,1-DCA
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)
MW-1 09/26/06	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Table 1 b
ADDITIONAL CURRENT ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	1,1-DCE	cis- 1,2- DCE	trans- 1,2- DCE	1,2- Dichloro- propane	cis-1,3- Dichloro- propene	trans-1,3- Dichloro- propene	Methylene chloride	1,1,2,2- Tetrachloro ethane	Tetrachloro- ethene (PCE)	Trichloro- trifluoro- ethane	1,1,1- Trichloro- ethane	1,1,2- Trichloro- ethane	Trichloro- ethene (TCE)	Trichloro- fluoro- methane	Vinyl chloride
•••	(μg/l)	(µg/l)	_ (μg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)
<b>MW-1</b> 09/26/06	0.60	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	7.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-1													
09/15/8	39					ND	ND	0.61	ND	ND			
01/23/9	90					ND	1.5	2.3	ND	4.3			
04/19/9	90					ND	ND	ND	ND	ND			
07/17/9	90	•				ND	ND	ND	ND	ND			
10/16/9	90					ND	ND	ND	ND	ND			
01/15/9	91					ND	ND	ND	ND	ND			
04/12/9		, <del></del>				ND	ND	ND	ND	ND			•
07/15/9	91					ND	ND	ND	ND	ND	<b></b> .		
07/14/9	92					ND	ND	ND	ND	ND			
04/13/9				54.73									SAMPLED ANNUALLY
07/14/9				53.94	-0.79	ND	2.2	2.1	1.1	6.2			
10/14/9		18.32		53.78	-0.16								
01/12/9				53.92	0.14			<del></del>					ŧ
04/11/9				54.30	0.38								
07/07/9		18.28	0.00	53.82	-0.48	ND	ND	ND	ND	ND			
10/05/9				53.55	-0.27								
01/09/9				54.20	0.65								
04/17/9				54.88	0.68								
07/19/9				54.07	-0.81	ND	ND	ND	ND	ND			
10/26/9				53.43	-0.64			<del></del>					
01/16/9				54.90	1.47						<u></u>		
04/15/9				54.70	-0.20								
07/11/9	6 72.10	18.03	0.00	54.07	-0.63	ND	ND	ND	ND	ND	ND		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	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)		
MW-1	continued													<del></del>
01/17/9	72.10	16.54	0.00	55.56	1.49									
07/21/9	72.10	18.16	0.00	53.94	-1.62	ND	ND	ND	ND	ND	ND			
01/14/9	8 72.10	16.05	0.00	56.05	2.11									
07/06/9	8 72.10	16.46	0.00	55.64	-0.41	ND	ND	ND	ND	ND	ND			
01/13/9	9 72.10	17.37	0.00	54.73	-0.91									
08/31/9	9 72.12	17.00	0.00	55.12	0.39	ND	ND	ND	ND	ND	ND			
01/21/0	00 72.12	17.04	0.00	55.08	-0.04									
07/10/0	00 72.12	18.10	0.00	54.02	-1.06	ND	ND	ND	ND	ND	ND		,	
01/04/0	1 72.12	17.95	0.00	54.17	0.15				<del></del>					
07/16/0	72.12	18.03	0.00	54.09	-0.08	ND	ND	ND	ND	ND	ND			
01/28/0	2 72.12	17.31	0.00	54.81	0.72								SAMPLED ANNUA	LLY
07/12/0	2 72.12	18.15	0.00	53.97	-0.84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5			
01/14/0	3 72.12	17.66	0.00	54.46	0.49								SAMPLED ANNUA	LLY
07/10/0	3 72.12	17.86	0.00	54.26	-0.20	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0			
02/04/0	4 72.12	17.43	0.00	54.69	0.43								Monitored Only	<b>/</b>
07/29/0	4 72.12	18.12	0.00	54.00	-0.69	ND<50	ND<0.3	0.38	ND<0.3	ND<0.6	ND<1	ND<0.5		
03/02/0	5 72.12	16.15	0.00	55.97	1.97								Sampled Annual	ly
09/30/0	5 72.12	18.04	0.00	54.08	-1.89	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50		
03/23/0	6 72.12								-				Inaccessible due to g Sampled Q3 onl	
09/26/0	6 72.12	17.90	0.00	54.22		ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50		
MW-2														
09/15/8	9			·		290	ND	12	ND	ND				
01/23/9	0					400	73	36	10	40				

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	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)	
	continued												
04/19/9						3900	550	5.1	91	390			
07/17/9						490	76	0.59	11	46			
10/16/9						1400	430	2.0	48	240			
01/15/9						680	170	0.7	19	81			
04/12/9					***	2200	160	4.3	23	62			•
07/15/9						2200	770	12	72	370			
10/15/9						140	44	0.56	1.5	12			
01/15/9	2					220	37	0.52	1.1	7			
04/14/93						150	6.2	ND	ND	1.4			
07/14/9	2		<b>~=</b>			130	3.7	ND	ND	ND			
10/12/93	2					370	3.4	0.56	ND	11			
01/08/9	3					510	ND	ND	ND	ND			·
04/13/9:	3 71.63	17.86	0.00	53.77		410	42	7.7	6.4	28	200	<del></del>	
07/14/9	3 71.63	18.38	0.00	53.25	-0.52	110	6.5	ND	ND	1.1	250		
10/14/93	3 71.38	18.20	0.00	53.18	-0.07	230	5.3	ND	ND	2.1			
01/12/9	4 71.38	18.08	0.00	53.30	0.12	300	7.8	3.8	1.8	10			
04/09/94	4 71.38	17.97	0.00	53.41	0.11	120	10	0.88	1.1	4.9			
04/11/94	4 71.38	17.88	0.00	53.50	0.09								
07/07/94	4 71.38	17.81	0.00	53.57	0.07	110	4.4	ND	ND	ND			
10/05/94	4 71.38	18.33	0.00	53.05	-0.52	720	20	ND	ND	3.1			
01/09/9:	5 71.38	17.40	0.00	53.98	0.93	ND	ND	ND	ND .	ND			
04/17/9:	5 71.38	17.50	0.00	53.88	-0.10	93	5.6	0.62	1.7	5.5			
07/19/9:	5 71.38	18.01	0.00	53.37	-0.51	77	32	0.58	1.7	4.1			
10/26/9:	5 71.38	18.21	0.00	53.17	-0.20	54	13	ND	ND	0.72	220		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	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)	
MW-2	continued					;···-							
01/16/9	6 71.38	16.58	0.00	54.80	1.63	120	23	ND	ND	0.99			
04/15/9	6 71.38	17.61	0.00	53.77	-1.03	340	21	ND	2.2	3.7	45		
07/11/9	6 71.38	17.98	0.00	53.40	-0.37	540	34	ND	4.3	12	150		
01/17/9	71.38	17.08	0.00	54.30	0.90	320	63	2.4	9.4	26	260		
07/21/9	71.38	18.06	0.00	53.32	-0.98	160	13	ND	1.3	1.6	180		
01/14/9	8 71.38	16.52	0.00	54.86	1.54	66	6.3	ND	ND	0.98	100		
07/06/9	8 71.38	16.87	0.00	54.51	-0.35	ND	2.3	ND	ND	ND	11		
01/13/9	9 71.38	17.88	0.00	53.50	-1.01	53	24	ND	0.52	0.98	120		
08/31/9	9 71.34	18.45	0.00	52.89	-0.61	86	14	ND	0.63	ND	21		
01/21/0	0 71.34	17.73	0.00	53.61	0.72	ND	1.94	ND	ND	ND	10.1		
07/10/0	0 71.34	18.14	0.00	53.20	-0.41	ND	ND	ND	ND	ND	46.6	<b>~-</b>	
01/04/0	1 71.34	18.02	0.00	53.32	0.12	ND	0.925	ND	ND	ND	ND		
07/16/0	1 71.34	18.02	0.00	53.32	0.00	ND	ND	ND	ND	ND	ND		
01/28/0	2 71.34	17.57	0.00	53.77	0.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
07/12/0	2 71.34	18.05	0.00	53.29	-0.48	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
01/14/0	3 71.34	17.44	0.00	53.90	0.61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		
07/10/0	3 71.34												INACCESSIBLE - VEHICLE PARKED OVER WELL
02/04/0	4 71.34	17.22	0.00	54.12		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
07/29/0	4 71.34				<b></b> .			- All too			<del></del>		Inaccessible-car parked on well
03/02/0	5 71.34	16.63	0.00	54.71		99	26	ND<0.50	3.5	2.8	ND<5.0		
09/30/0	5 71.34	17.94	0.00	53.40	-1.31	ND<50	1.2	ND<0.30	ND<0.30	ND<0.60	1.6		
03/23/0	6 71.34	16.74	0.00	54.60	1.20	ND<50	3.6	ND<0.30	0.35	ND<0.60	2.5	MA AM	

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	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)	
MW-2			0.00	50.40									
09/26/0	06 71.34	17.91	0.00	53.43	-1.17	ND<50	1.2	ND<0.30	ND<0.30	ND<0.60	ND<1.0		
MW-3													
09/15/8			7.			32	ND	ND	ND	ND		<b></b>	
01/23/9						450	110	1.2	4.4	11			
04/19/9						3100	600	27	54	. 220			
07/17/9			7-			4000	270	48	130	250			
10/16/9						740	210	1.4	2.5	82		70	
01/15/9	91					3200	460	1.5	120	270			
04/12/9	91					880	170	1.1	34	110			
07/15/9	91					9200	1300	230	490	1900			·
10/15/9	91					3100	390	34	150	390			
01/15/9	92					3000	590	14	310	750			
04/14/9	92		,			14000	660	48	560	2000			
07/14/9	92					21000	890	200	1200	4300			
10/12/9	92					3200	160	10	230	540			
01/08/9	93					1100	48	0.99	0.9	93			
04/13/9	93 72.06	17.96	0.00	54.10		12000	290	38	760	2300	1400		•
07/14/9	93 72.06	18.54	0.00	53.52	-0.58	6300	190	ND	430	1000	860		
10/14/9	93 71.86	18.45	0.00	53.41	-0.11	2500	52	ND	110	250			
01/12/9	94 71.86	18.34	0.00	53.52	0.11	3800	78	ND.	180	390			•
04/09/9	94 71.86	18.19	0.00	53.67	0.15	1800	22	ND	140	280			
04/11/9	94 71.86	18.12	0.00	53.74	0.07								
07/07/9	94 71.86	18.21	0.00	53.65	-0.09	110	4.5	ND	ND	ND			
10/05/9	94 71.86	18.58	0.00	53.28	-0.37	ND	ND	ND	ND	ND			
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Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS September 1989 Through September 2006 Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(μg/l)	
MW-3					* .							***	
01/09/9	95 71.86	17.69	0.00	54.17	0.89	ND	0.68	ND	ND	ND			
04/17/9		17.68	0.00	54.18	0.01	3700	80	10	270	510	70		
07/19/9		18.20		53.66	-0.52	15000	330	27	990	2400		~=	
10/26/9		18.32	0.00	53.54	-0.12	14000	420	180	750	1600	4800		
01/16/9		17.95		53.91	0.37	920	38	ND	30	57	<del></del>	. ==	
04/15/9		17.78	0.00	54.08	0.17	9700	240	ND	570	860	3200		
07/11/9	96 71.86	18.19	0.00	53.67	-0.41	13000	69	5.5	430	900	740		
01/17/9		17.23	0.00	54.63	0.96	4400	25	ND	270	580	1600		
07/21/9	97 71.86	18.29	0.00	53.57	-1.06	9000	36	ND	450	800	950		
01/14/9	98 71.86	16.71	0.00	55.15	1.58	7100	40	ND	380	360	930		
07/06/9	98 71.86	17.03	0.00	54.83	-0.32	6800	39	ND	320	360	370		
01/13/9	99 71.86	18.00	0.00	53.86	-0.97	1800	9.4	ND	58	36	180		
08/31/9	99 71.40		0.00										Well obstructed at 0.5 feet.
01/21/0	00 71.40	17.58	0.00	53.82		ND	ND	ND	ND	ND	21.4		•
07/10/0	00 71.40	18.05	0.00	53.35	-0.47	ND	ND	ND	ND	ND	162		•
08/25/0	00 71.40	17.82	0.00	53.58	0.23							180	
01/04/0	71.40	18.16	0.00	53.24	-0.34	ND	ND	ND	ND	ND	193		
07/16/0	71:40	17.98	0.00	53.42	0.18	ND	ND	ND	ND	ND	660		
01/28/0	02 71.40	17.84	0.00	53.56	0.14	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	34		
07/12/0	71.40	17.87	0.00	53.53	-0.03	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	11	19	
01/14/0	71.40	17.28	0.00	54.12	0.59	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	12		
07/10/0	03 71.40	17.64	0.00	53.76	-0.36	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	23		
02/04/0	04 71.40	17.05	0.00	54.35	0.59	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	26		
07/29/0	04 71.40	17.82	0.00	53.58	-0.77	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1		
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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	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)		
MW-3	continued													
03/02/0		16.47	0.00	54.93	1.35	93	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140			
09/30/0	5 71.40	17.79	0.00	53.61	-1.32	65	ND<0.30	ND<0.30	ND<0.30	ND<0.60	61			
03/23/0	6 71.40	16.61	0.00	54.79	1.18	54	ND<0.30	0.41	ND<0.30	0.98	63			
09/26/0	6 71.40	17.77	0.00	53.63	-1.16	51	ND<0.30	ND<0.30	ND<0.30	ND<0.60	41			
MW-4														
09/15/8	9		75			ND	ND	ND	ND	ND				
01/23/9	0			70		ND	ND	0.4	ND	ND				
04/19/9	0					ND	ND	0.48	ND	ND	· <del></del>			
07/17/9	0					ND	ND	ND	ND	ND				
10/16/9	0					ND	ND	ND	ND	ND				
01/15/9	1					ND	ND	ND		ND			•	
04/12/9	1		·			ND	ND	ND	ND	ND				
07/15/9	1					ND	ND	ND	ND	ND .				
07/14/9	2					ND	1.3	2.5	ND	1.0				
04/13/9	3 71.98	17.67	0.00	54.31										SAMPLED ANNUALLY
07/14/9	3 71.98	18.31	0.00	53.67	-0.64	ND	ND	ND	ND	ND			•	
10/14/9		18.08	0.00	53.56	-0.11				<del>~-</del>					
01/12/9	4 71.64	17.97	0.00	53.67	0.11								•	
04/11/9	4 71.64	17.70	0.00	53.94	0.27	·					<b></b>			
07/07/9	4 71.64	17.80	0.00	53.84	-0.10	ND	ND	ND	ND	ND			•	
10/05/9	4 71.64	18.28	0.00	53.36	-0.48									
01/09/9	5 71.64	17.38	0.00	54.26	0.90		<b></b>							
04/17/9		17.21	0.00	54.43	0.17	<b></b> ,								SAMPLED ANNUALLY
07/19/9	5 71.64	17.82	0.00	53.82	-0.61	ND	ND	ND	ND	ND				
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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
· .	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(μg/l)	(μg/l)	
MW-4	continued												
10/26/9	71.64	18.17	0.00	53.47	-0.35								
01/16/9	71.64	16.45	0.00	55.19	1.72								
04/15/9	6 71.64	17.35	0.00	54.29	-0.90								
07/11/9	6 71.64	17.81	0.00	53.83	-0.46	ND	ND	ND	ND	ND	ND		
01/17/9	71.64	16.73	0.00	54.91	1.08								
07/21/9	71.64	17.91	0.00	53.73	-1.18	ND	ND	ND	ND	ND	ND		
01/14/9	98 71.64	16.18	0.00	55.46	1.73			·					
07/06/9	71.64	16.49	0.00	55.15	-0.31	ND	ND	ND	ND	ND	ND		
01/13/9	9 71.64	17.29	0.00	54.35	-0.80								
08/31/9	9 71.54		0.00										Well obstructed at 10.4 feet.
01/21/0	00 71.54	17.51	0.00	54.03								<del></del> -	
07/10/0	71.54	17.93	0.00	53.61	-0.42	ND	ND	ND	ND	ND	ND		
01/04/0	71.54	18.10	0.00	53.44	-0.17								
07/16/0	71.54	17.76	0.00	53.78	0.34	ND	ND	ND	ND	ND	ND		
01/28/0	2 71.54	17.20	0.00	54.34	0.56								SAMPLED ANNUALLY
07/12/0	71.54	17.81	0.00	53.73	-0.61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
01/14/0	3 71.54	17.30	0.00	54.24	0.51					·			SAMPLED ANNUALLY
07/10/0	3 71.54	17.58	0.00	53.96	-0.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		
02/04/0	71.54	17.07	0.00	54.47	0.51								Monitored Only
07/29/0	71.54	17.81	0.00	53.73	-0.74	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1		
03/02/0	5 71.54	16.25	0.00	55.29	1.56								Sampled Annually
09/30/0	71.54	17.74	0.00	53.80	-1.49	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0		
03/23/0	06 71.54	<del></del>								<b></b>	***		Inaccessible due to gate, Sampled Q3 only

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	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)	
	continued		0.00	52 P2		)	NTD +0.00	NT -0.00	3170 .0.00	NTD 0.60			
09/26/0	06 71.54	17.71	0.00	53.83		ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0		
MW-5	10					:	3.170						
11/30/9						ND	ND	ND	ND	ND			
01/08/9			0.00	54.00		ND	ND	ND	ND	ND			
04/13/9		17.49		54.02		ND	ND	ND	ND	ND			
07/14/9		18.02		53.49	-0.53	ND	ND	0.57	ND	ND			
10/14/9		17.82		53.41	-0.08	ND	ND	ND	ND	ND			
01/12/9		17.74		53.49	0.08	ND	ND	0.84	ND	1.6			
04/11/9		17.56		53.67	0.18	<b></b>							SAMPLED ANNUALLY
07/07/9		17.50		53.73	0.06	ND	ND	ND	ND	ND			·
10/05/9		17.98		53.25	-0.48	<b>-</b> -							
01/09/9		17.13		54.10	0.85								
04/17/9		17.05		54.18	0.08								
07/19/9		17.59		53.64	-0.54	ND	ND	ND	ND	ND			
10/26/9		18.10		53.13	-0.51								
01/16/9		17.11	0.00	54.12	0.99								÷
04/15/9		17.22		54.01	-0.11								
07/11/9		17.59		53.64	-0.37	ND	ND	ND	ND	ND	ND		
01/17/9		16.75		54.48	0.84				·				SAMPLED ANNUALLY
07/21/9		17.59		53.64	-0.84	ND	ND	ND	ND	ND	ND		
01/14/9		16.16		55.07	1.43								•
07/06/9	8 71.23	16.52	0.00	54.71	-0.36	ND	ND	ND	ND	ND	ND		
01/13/9	9 71.23	17.62	0.00	53.61	-1.10								•
08/31/9	9 71.16	17.76	0.00	53.40	-0.21	ND	ND	ND	ND	ND	ND		
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## Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS September 1989 Through September 2006 Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	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)		
MW-5	continued	ļ												
01/21/0		16.83	0.00	54.33	0.93									
07/10/0		17.46		53.70	-0.63	ND	ND	ND	ND	ND	ND			
01/04/			0.00	53.65	-0.05									
07/16/			0.00	53.84	0.19	ND	ND	ND	ND	ND	ND			
01/28/		17.12	0.00	54.04	0.20									SAMPLED ANNUALLY
07/12/				54.04	0.00	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5			
01/14/0		16.67	0.00	54.49	0.45									SAMPLED ANNUALLY
07/10/0		17.39	0.00	53.77	-0.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		1	
02/04/0	04 71.16	16.23	0.00	54.93	1.16									Monitored Only
07/29/0	04 71.16	16.02	0.00	55.14	0.21	ND<50	ND<0.3	0.64	ND<0.3	0.79	ND<1			
03/02/0		16.43	0.00	54.73	-0.41									Sampled Annually
09/30/0	05 71.16	17.41	0.00	53.75	-0.98	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0			
03/23/0	06 71.16	16.37	0.00	54.79	1.04									Sampled Q3 only
09/26/0	06 71.16	15.54	0.00	55.62	0.83	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0			
MW-6														
11/30/9	92					ND	ND	ND	ND	ND				
01/08/9	93					ND	ND	ND	ND	ND				
04/13/9	93 71.79	11.94	0.00	59.85		ND	ND	ND	ND	ND				
07/14/9	93 71.79	17.20	0.00	54.59	-5.26	ND	0.99	2.4	ND	1.9				
10/14/9	93 71.44	17.21	0.00	54.23	-0.36	ND	ND	0.64	ND	ND		- <del>-</del>	•	•
01/12/9	94 71.44	17.44	0.00	54.00	-0.23	ND	ND	1.2	ND	2.9				
04/11/9	94 71.44	13.66	0.00	57.78	3.78									SAMPLED ANNUALLY
07/07/9	94 71.44	14.05	0.00	57.39	-0.39	ND	ND	ND	ND	ND				
10/05/9	94 71.44	14.16	0.00	57.28	-0.11		-							
3538								Page 10	0 of 12					,

## Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS September 1989 Through September 2006

#### Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments	
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	$(\mu g/l)$	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)		
MW-6	continued													
01/09/9	5 71.44	13.73	0.00	57.71	0.43									
04/17/9	5 71.44	11.30	0.00	60.14	2.43									
07/19/9	5 71.44	12.32	0.00	59.12	-1.02	ND	ND	ND	ND	ND		<del></del>		
10/26/9	5 71.44	17.88	0.00	53.56	-5.56									
01/16/9	6 71.44	16.38	0.00	55.06	1.50									
04/15/9	6 71.44	14.00	0.00	57.44	2.38									
07/11/9	6 71.44	13.58	0.00	57.86	0.42	ND	ND	ND	. ND	ND	ND	77		
01/17/9	71.44	15.42	0.00	56.02	-1.84									
07/21/9	71.44	13.78	0.00	57.66	1.64	ND	ND	ND	ND	ND	ND			
01/14/9	8 71.44	13.65	0.00	57.79	0.13				<del></del>					
07/06/9	8 71.44	13.90	0.00	57.54	-0.25	ND	ND	ND	ND	ND	ND			
01/13/9	9 71.44	14.93	0.00	56.51	-1.03									
08/31/9	9 71.37	15.81	0.00	55.56	-0.95	ND	ND	ND	ND	ND	ND			
01/21/0	0 71.37	16.13	0.00	55.24	-0.32	<del></del>							SAMPLED ANNUALLY	
07/10/0	0 71.37	16.95	0.00	54.42	-0.82	ND	ND	ND	ND	ND	ND			
01/04/0	1 71.37	17.09	0.00	54.28	-0.14			Ma.m.					•	
07/16/0	1 71.37	16.83	0.00	54.54	0.26	ND	ND	ND	ND	ND	ND	-		
01/28/0	2 71.37	14.58	0.00	56.79	2.25								SAMPLED ANNUALLY	
07/12/0	2 71.37	16.76	0.00	54.61	-2.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5			
01/14/0	3 71.37	16.25	0.00	55.12	0.51							***	SAMPLED ANNUALLY	
07/10/0	3 71.37	12.97	0.00	58.40	3.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0			
02/04/0	4 71.37	16.20	0.00	55.17	-3.23								Monitored Only	
07/29/0	4 71.37	14.98	0.00	56.39	1.22	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	1.3			
03/02/0	5 71.37	14.51	0.00	56.86	0.47						,		Sampled Annually	

Page 11 of 12

3538

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through September 2006
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	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)	
MW-6	continued												
09/30/0	5 71.37	14.45	0.00	56.92	0.06	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	1.7		
03/23/0	6 71.37	16.55	0.00	54.82	-2.10		·						Sampled Q3 only
09/26/0	6 71.37	17.58	0.00	53.79	-1.03	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0		

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	TPH-D	ТВА	Ethanol (8260B)	Ethylene- dibromide (EDB)		DIPE	ETBE	TAME	Total Oil and Grease	Bromo- dichloro- methane	Bromo- form	Bromo- methane	Carbon Tertra- chloride	Chloro- benzene	Chloro- ethane
	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)
MW-1															
09/15/89	ND	`							ND						
01/23/90	ND								1.5						
04/19/90	ND					~~	'		ND						
07/17/90	ND								ND						
10/16/90	ND					77			ND						
. 01/15/91	ND								ND	·					
04/12/91	ND								ND						
07/15/91	ND	777							ND						
07/16/01									'	1.7					
07/29/04					ND<0.5			uu.		ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5	ND<0.5
09/30/05					ND<0.50					ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
09/26/06					ND<0.50					ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
MW-3															
08/25/00		ND		ND	ND	ND	ND	ND							
07/12/02	-	ND<20	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0							

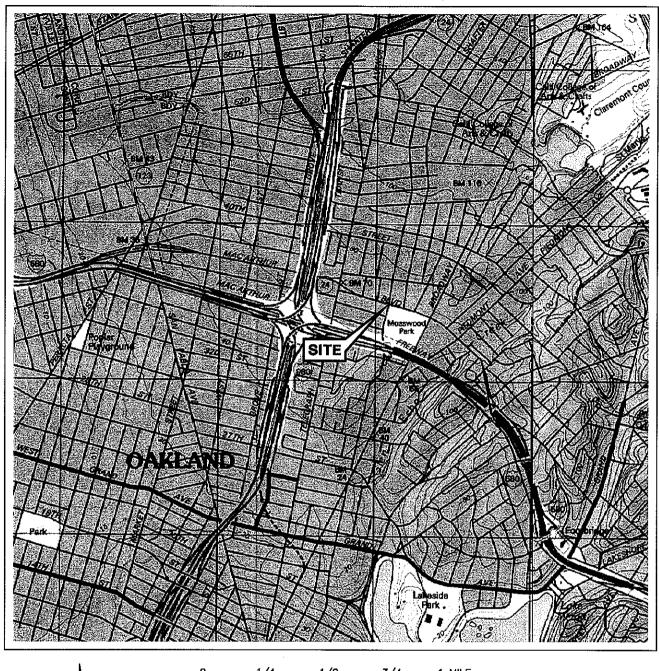
Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	Chloroform	Chloro- methane	Dibromo- chloro- methane	1,2- Dichloro- benzene	1,3- Dichloro- benzene	1,4- Dichloro- benzene	Dichloro- difluoro- methane	1,1-DCA	1,1-DCE	cis- 1,2- DCE	trans- 1,2- DCE	1,2- Dichloro- propane	cis-1,3- Dichloro- propene	trans-1,3- Dichloro- propene	Methylene chloride
· ·	(μg/l)	(µg/l)	(μg/l)	$(\mu g/l)$	$(\mu g/l)$	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)
MW-1															
07/11/96	0.96														
07/21/97	1.0														
07/16/01	45														
07/12/02									1.8					. <b></b>	
07/10/03					<del></del> -				0.89						
07/29/04	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1
09/30/05	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.52	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
09/26/06	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.60	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0

Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date	1,1,2,2- Fetrachloro-		Trichloro- trifluoro-	1,1,1- Trichloro-	1,1,2- Trichloro-	Trichloro- ethene	Trichloro- fluoro-	Vinyl chloride			•			
Sampiou	ethane	(PCE)	ethane	ethane	ethane	(TCE)	methane	Chloride				,	. :	,
	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	 		•		٠	
<b>MW-1</b> 09/15/89		2.7		<b></b>										
01/23/90		2.1												
04/19/90		2.2				20								
07/17/90		1.7			·									
10/16/90		2.0		<b></b>				***						
01/15/91		2.1												
04/12/91		2.0												
07/15/91		1.8												•
07/14/92		1.4												
07/14/93		0.95												-
07/07/94		0.83						. <b></b>						
07/19/95		0.52						,						
07/11/96		0.73												
07/21/97		0.70			•			<del></del>						
08/31/99		ND												
07/16/01		ND												
/ 07/12/02		ND<0.60								٠				
07/10/03		ND<0.50				<u>-</u>								
07/29/04	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5						
09/30/05	ND<0.50	ND<0.50	9.1	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50						
09/26/06	ND<0.50	ND<0.50	7.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50						

### **FIGURES**





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

SCALE 1:24,000

#### SOURCE:

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



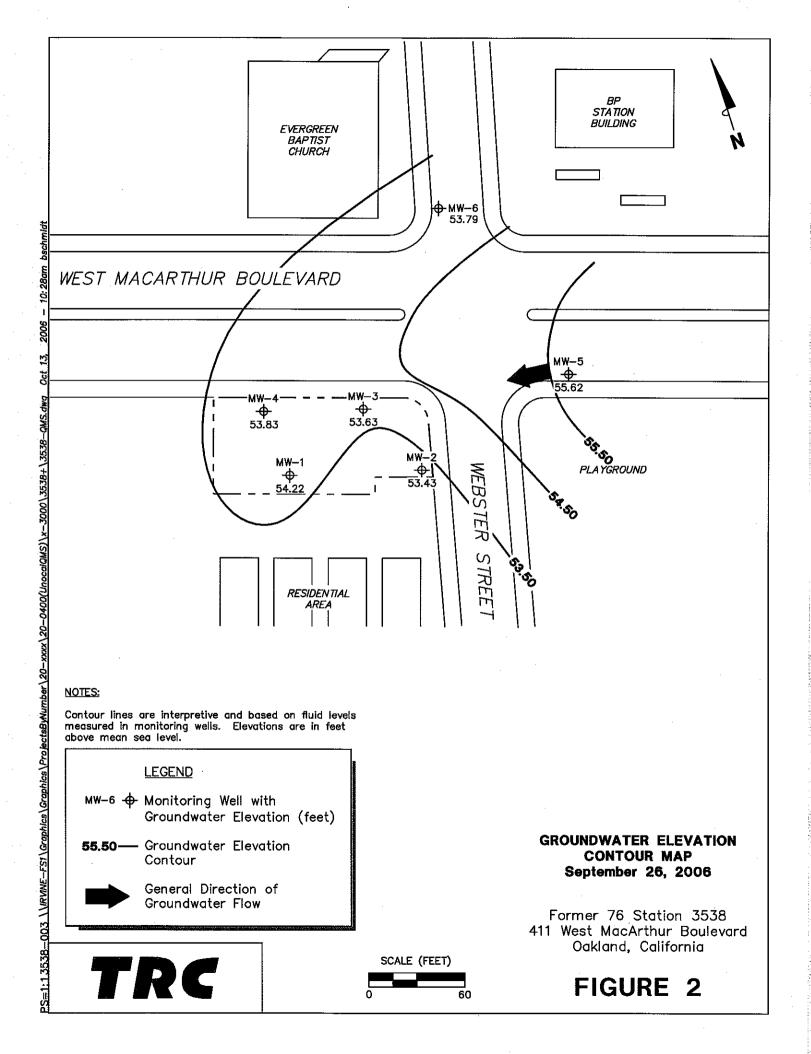


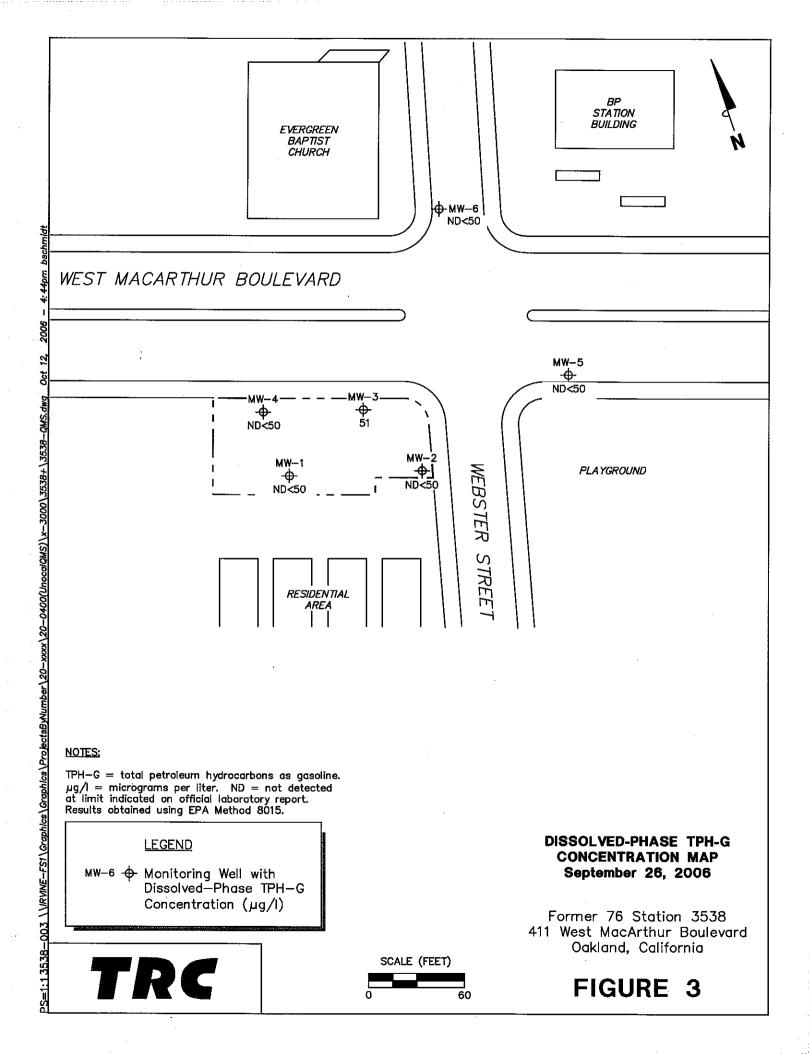
#### VICINITY MAP

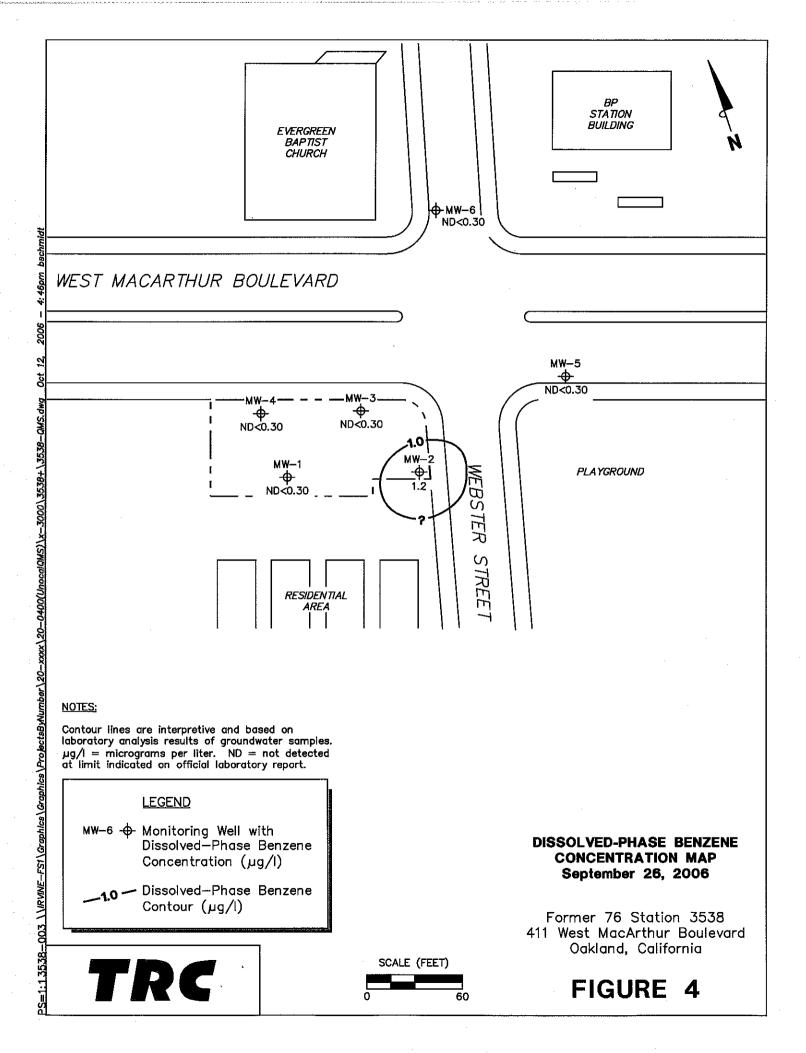
Former 76 Station 3538 411 West MacArthur Boulevard Oakland, California

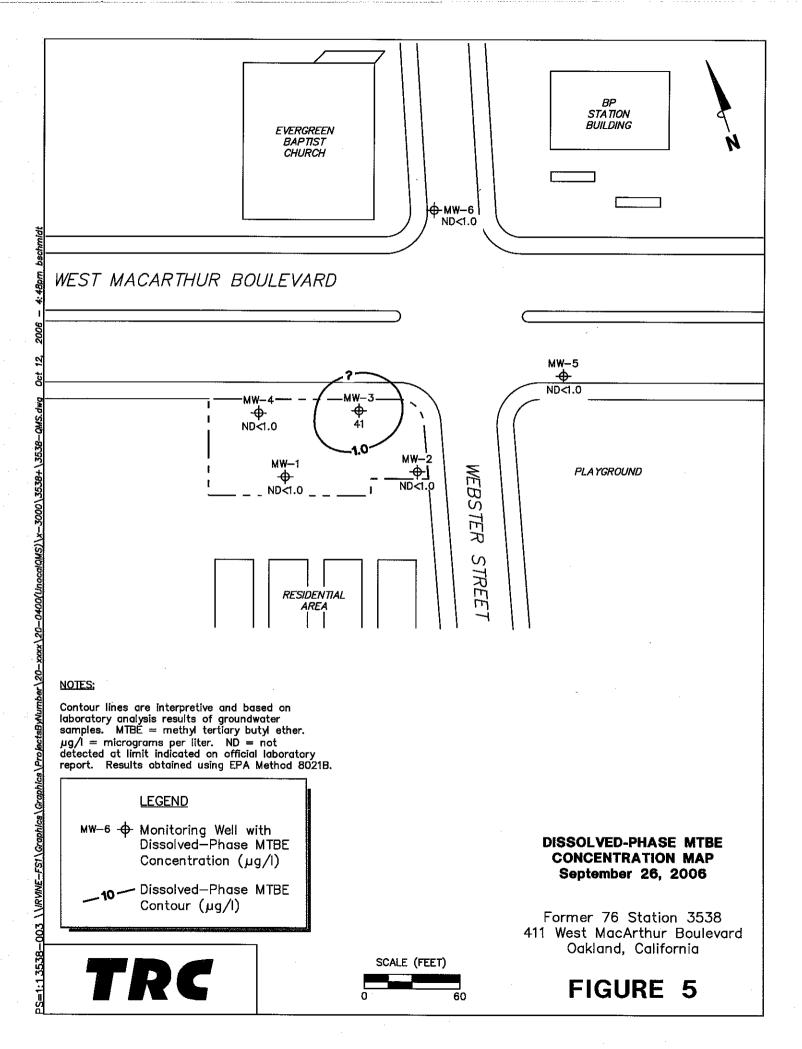
FIGURE 1

S = 1:1



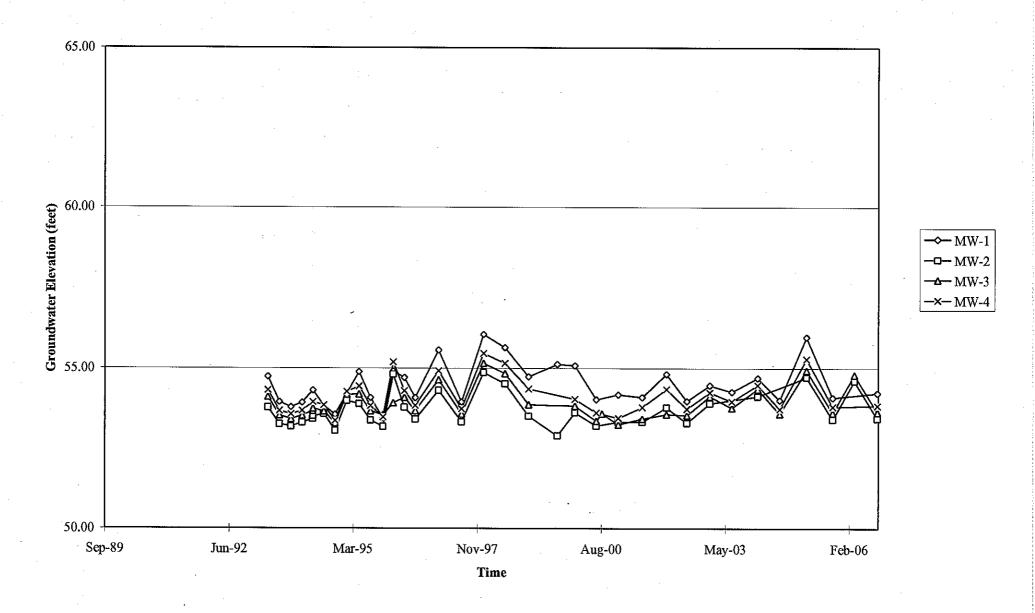




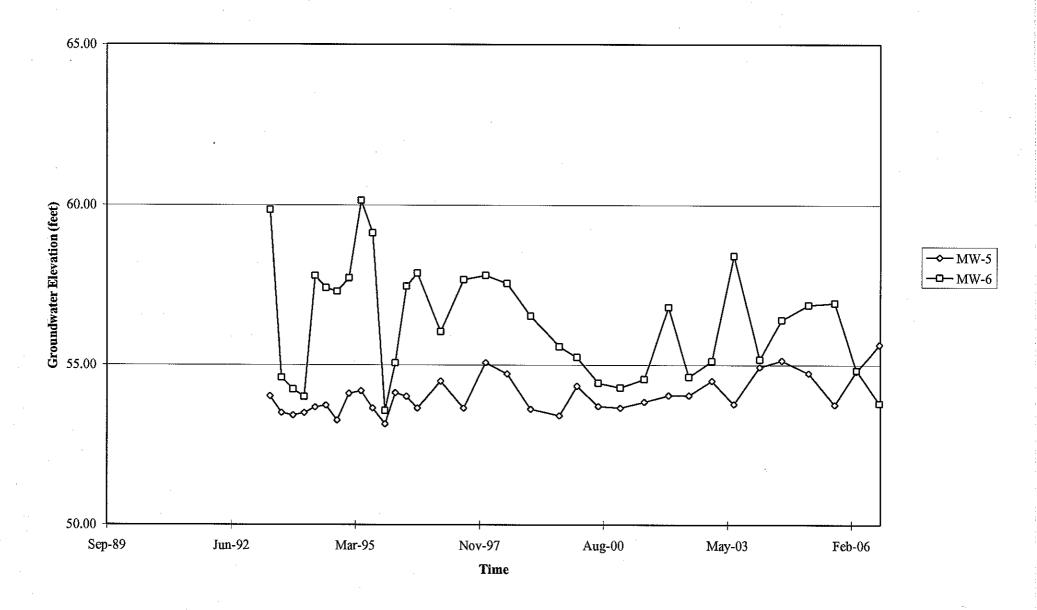


# **GRAPHS**

### Groundwater Elevations vs. Time Former 76 Station 3538



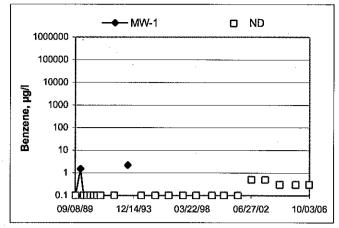
Elevations may have been corrected for apparent changes due to resurvey

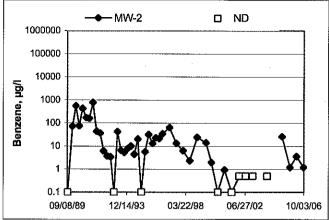


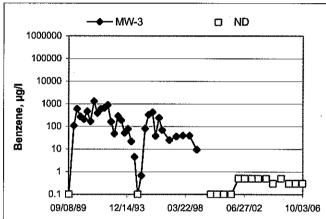
Elevations may have been corrected for apparent changes due to resurvey

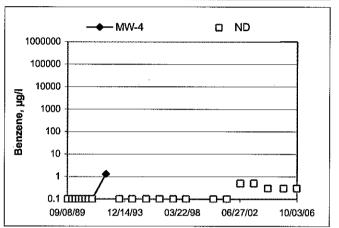
#### **Benzene Concentrations vs Time**

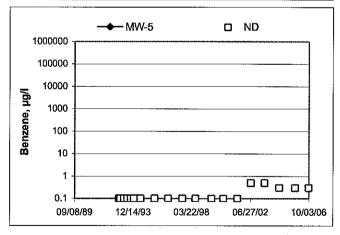
Former 76 Station 3538

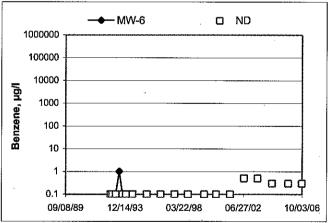












#### GENERAL FIELD PROCEDURES

#### **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

echnician:	Chris	• >	dol	#/Task #:_	4106000	1/1A2	0	Date: 1 20	0 -06
	Ø 35°		Project	Manager <u>.</u>	Kieth V	Voalburn	e	Pageof	1
	I			Depth	Depth	Product	T:		
Well #	Time Gauged	тос	Total Depth	to Water	to Product	Thickness (feet)	Time Sampled	Misc. Well N	lotes
mw-1	0946	X	23.88	17.90			1124	2"	
MW-4	0956	X	2462	17.71	_		1155	211	
MV-5	1006	X	30.01	15.54			1326	2//	
MW-6	101	X	30.09	17.58	<u> </u>		1305	24	
Mir-2	1017	X	24.45	17.41			1213	2"	
MW-3	1021	X	27.14	17.77			1229	2"	
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FIELD DATA COMPLETE			QA/Q	 C_	CO	  C	WELL BOX	CONDITION SHE	ETS
			V		$\sqrt{}$			V	
WTT CEI	RTIFICATE		MANIF	EST	DRUM	INVENTORY	TF	RAFFIC CONTROL	

#### **GROUNDWATER SAMPLING FIELD NOTES**

Technician: Chris Project No.: 406000/ Site: 3538 Date: 9-26-06 Purge Method: HB Well No.  $M \sim -5$ Depth to Product (feet): Depth to Water (feet): 15.54 LPH & Water Recovered (gallons): 30,0) Total Depth (feet) Water Column (feet): 14.4フ Casing Diameter (Inches): 2// 80% Recharge Depth(feet): 1843 1 Well Volume (gallons): Depth to Volume Conduc-Time Time Temperature Water Purged tivity pН D.O. ORP **Turbidity** Start Stop (FC) (feet) (gallons) (uS)cm) 19.8 1315 19.9 Static at Time Sampled **Total Gallons Purged** Sample Time 1322en 17.94 1326 Comments: Well No. MW-6 Purge Method: 48 Depth to Water (feet): 17,58 Depth to Product (feet): Total Depth (feet) 30.09 LPH & Water Recovered (gallons):\_\_\_\_ Casing Diameter (Inches): 2" Water Column (feet): 1 Well Volume (gallons): Depth to Volume Conduc-Time Time Temperature Water Purged tivity рΗ ORP Turbidity D.O. Start Stop (F,C) (feet) (gallons) (uŜ)(cm) 1252 35 1302 Static at Time Sampled **Total Gallons Purged** Sample Time 9.90 1309 Comments:

### **GROUNDWATER SAMPLING FIELD NOTES**

Technician: <u>chris</u> Project No.: 41060001 Site: 3536 Purge Method: HB Well No. Mw-Depth to Water (feet): 1790 Depth to Product (feet):\_ Total Depth (feet) LPH & Water Recovered (gallons): Water Column (feet): Casing Diameter (Inches): 2" 1 Well Volume (gallons): 80% Recharge Depth(feet): Depth to Volume Conduc-Time Time Temperature Water Purged <u>tí</u>vity pΗ D.O. ORP Turbidity Start Stop (F, **(**) (feet) (gallons) uS/cm) ロル wid Static at Time Sampled **Total Gallons Purged** Sample Time 18.48 Comments: Well No. Mh - 4 Purge Method: 4/3 Depth to Water (feet): 17.71 Depth to Product (feet): Total Depth (feet) LPH & Water Recovered (gallons): Casing Diameter (Inches): 2" Water Column (feet): 80% Recharge Depth(feet): 19.09 1 Well Volume (gallons): Depth to Volume Conduc-Time Time Temperature Water Purged tivity pН Turbidity D.O. ORP Start Stop (F,C) (feet) (gallons) uS/cm) 19.1 Static at Time Sampled Total Gallons Purged Sample Time 1885 H55 Comments:

### **GROUNDWATER SAMPLING FIELD NOTES**

Technician: Chris Project No.: 4060001 Site: 353R Date: 9-26-66 Well No. Mw-2 Purge Method: Depth to Product (feet):\_\_\_\_ Depth to Water (feet): Total Depth (feet) LPH & Water Recovered (gallons): Casing Diameter (Inches): 2" Water Column (feet): 80% Recharge Depth(feet): 1 Well Volume (gallons): Depth to Volume Conduc-Time Time Temperature Water Purged tivity pН D.O. ORP **Turbidity** Start Stop (F,C) (ÚŠ/cm) (feet) (gallons) 203 6.99 6.76 1210 Static at Time Sampled Total Gallons Purged Sample Time 19.03 1213 Comments: Purge Method: 48 Well No. MW-3 Depth to Product (feet):\_\_\_\_ Depth to Water (feet):\_\_\_\_フィフフ LPH & Water Recovered (gallons): Total Depth (feet) 27.14 Casing Diameter (Inches):  $\mathcal{A}'$ Water Column (feet): 80% Recharge Depth(feet): 1 Well Volume (gallons): Depth to Volume Conduc-Time Time Temperature Water Purged pН D.O. ORP Turbidity Start Stop (F,(C) (us/km) (feet) (gallons) 1218 660 6.53 6.50 Static at Time Sampled Total Gallons Purged Sample Time 19.32 1229 Comments:



Date of Report: 10/06/2006

Anju Farfan

TRC Alton Geoscience

21 Technology Drive Irvine, CA 92618-2302

RE: 3538

BC Lab Number: 0609993

Enclosed are the results of analyses for samples received by the laboratory on 09/26/06 21:50. 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: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

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

Laboratory	Client Sample Informat	ion			
0609993-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 3538 MW-1 MW-1 Chris M. of TRCI	Receive Date: 09 Sampling Date: 09 Sample Depth: Sample Matrix: W	-	Delivery Work Order: Global ID: T0600101472 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0609993-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	3538 MW-2 MW-2 Chris M. of TRCI	Sampling Date: 09 Sample Depth:	9/26/06 21:50 9/26/06 12:13 - 'ater	Delivery Work Order: Global ID: T0600101472 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0609993-03	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	3538 MW-3 MW-3 Chris M. of TRCI	Receive Date: 09 Sampling Date: 09 Sample Depth: Sample Matrix: W	-	Delivery Work Order: Global ID: T0600101472 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0609993-04	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	3538 MW-4 MW-4 Chris M. of TRCI			Delivery Work Order: Global ID: T0600101472 Matrix: 'W Samle QC Type (SACode): CS Cooler ID:
0609993-05	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	3538 MW-5 MW-5 Chris M. of TRCI			Delivery Work Order: Global ID: T0600101472 Matrix: W Samle QC Type (SACode): CS Cooler ID:



TRC Alton Geoscience

21 Technology Drive Irvine CA, 92618-2302 Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

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

Laboratory

**Client Sample Information** 

0609993-06

**COC Number:** 

---

Project Number: Sampling Location:

3538 MW-6

Sampling Point:

MW-6

Sampled By:

Chris M. of TRCI

Receive Date:

09/26/06 21:50

Sampling Date: 09/26/06 13:05 Sample Depth: ---

Sample Matrix: Water

Delivery Work Order:

Global ID: T0600101472 Matrix: W

viaurix. VV

Samle QC Type (SACode): CS

Cooler ID:



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/06/06 11:02

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

BCL Sample ID: 0609993-01	Client Sam	ple Name:	3538,	MW-1, N	IW-1, 9/26/	/2006 11	:24:00AM, Ch	ris M.					
						Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Bromodichloromethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Bromoform	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Bromomethane	ND	ug/L	1.0		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Carbon tetrachloride	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Chlorobenzene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Chloroethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Chloroform	. ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Chloromethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Dibromochloromethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
1,2-Dichlorobenzene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
1,3-Dichlorobenzene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1.	BPJ0127	ND	
1,4-Dichlorobenzene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Dichlorodifluoromethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
1,1-Dichloroethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ŅD	
1,1-Dichloroethene	0.60	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
cis-1,2-Dichloroethene	ND	ug/L	0.50	• • • • • • • • • • • • • • • • • • • •	EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	<del></del>
trans-1,2-Dichloroethene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
1,2-Dichloropropane	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
cis-1,3-Dichloropropene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
trans-1,3-Dichloropropene	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Methylene chloride	ND	ug/L	1.0		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

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

Client Sam	e: 3538, M	IW-1, M	IW-1, 9/26	/2006 11	:24:00AM, Ch	ris M.						
					Prep	Run		Instru-		QC	MB	Lab
Result	Units	PQL	MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	· · · · · · · · · · · · · · · · · · ·
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND .	
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
7.0	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
ND	ug/L	0.50		EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	ND	
106	%	76 - 114 (LC	L - UCL)	EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127	· · · · · · · · · · · · · · · · · · ·	
100	%	88 - 110 (LC	L - UCL)	EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127		
90.3	%	86 - 115 (LC	L - UCL)	EPA-8260	10/03/06	10/04/06 00:50	MGC	MS-V5	1	BPJ0127		
	Result ND ND ND ND ND ND ND ND ND 106	Result         Units           ND         ug/L           106         %           100         %	Result         Units         PQL           ND         ug/L         0.50           106         %         76 - 114         (LC           100         %         88 - 110         (LC	Result         Units         PQL         MDL           ND         ug/L         0.50         ND           106         %         76 - 114         (LCL - UCL)           100         %         88 - 110         (LCL - UCL)	Result         Units         PQL         MDL         Method           ND         ug/L         0.50         EPA-8260           7.0         ug/L         0.50         EPA-8260           ND         ug/L         0.50         EPA-8260           ND         ug/L         0.50         EPA-8260           106         %         76 - 114         (LCL - UCL)         EPA-8260           100         %         88 - 110         (LCL - UCL)         EPA-8260	Result         Units         PQL         MDL         Method         Prep Date           ND         ug/L         0.50         EPA-8260         10/03/06           7.0         ug/L         0.50         EPA-8260         10/03/06           ND         ug/L         0.50         EPA-8260         10/03/06	Result         Units         PQL         MDL         Method         Date         Date/Time           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50           10	Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC           7.0         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC	Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst         Instrument ID           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           7.0         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-	Result         Units         PQL         MDL         Method         Prep Date         Run Date/Time         Analyst Analyst Ment ID Pollution         Dilution           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           7.0         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         <	Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst         ment ID         Dilution         Batch ID           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1         BPJ0127           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1         BPJ0127           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1         BPJ0127           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1         BPJ0127           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1         BPJ0127           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1         BPJ0127           7.0         ug/L         0.50         EPA-8260         10/03/06         10/04/06 00:50         MGC         MS-V5         1 <t< td=""><td>Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst         ment ID         Dilution         Batch ID         Bias           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND</td></t<>	Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst         ment ID         Dilution         Batch ID         Bias           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND           ND         ug/L         0.50         EPA-8260         10/03/06         10/04/06         00:50         MGC         MS-V5         1         BPJ0127         ND



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

BCL Sample ID: 0609993-01	Client Sam	e: 3538, MV	V-1, M	W-1, 9/26	2006 11	:24:00AM, Ch	ris M.					÷	
						Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL I	WDL_	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quais
Benzene	ND	ug/L	0.30		EPA-8020	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365	ND	
Toluene	ND	ug/L	0.30		EPA-8020	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365	ND	
Ethylbenzene	ND	ug/L	0.30		EPA-8020	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365	ND	·-···
Methyl t-butyl ether	ND	ug/L	1.0		EPA-8020	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365	ND	-
Total Xylenes	ND	ug/L	0.60		EPA-8020	09/27/06	09/27/06 18:07	ÇAW	GC-V4	1	BPI1365	ND	
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		Luft	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365	ND	
a,a,a-Trifluorotoluene (PID Surrogate)	81.0	%	70 - 130 (LCL -	UCL)	EPA-8020	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365		
a,a,a-Trifluorotoluene (FID Surrogate)	99.0	%	70 - 130 (LCL -	- UCL)	Luft	09/27/06	09/27/06 18:07	CAW	GC-V4	1	BPI1365		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

BCL Sample ID: 0609993-02	Client Sam	ple Nam	e: 3538, MW-2, I	MW-2, 9/26	/2006 12	2:13:00PM, Ch	ris M.					
					Prep	Run	,	Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	1.2	ug/L	0.30	EPA-8020	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365	ND	
Toluene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365	ND	
Ethylbenzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365	ND	
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8020	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365	ND	
Total Xylenes	ND	ug/L	0.60	EPA-8020	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365	ND	
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365	ND	
a,a,a-Trifluorotoluene (PID Surrogate)	80.4	%	70 - 130 (LCL - UCL	) EPA-8020	09/27/06	09/27/06 19:51	CAW	GC-V4	1	BPI1365		
a,a,a-Trifluorotoluene (FID Surrogate)	96.6	%	70 - 130 (LCL - UCL	) Luft	09/27/06	09/27/06 19:51	ÇAW	GC-V4	1	BPI1365		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

**Reported:** 10/06/06 11:02

BCL Sample ID: 0609993-03	Client Sam	ple Nam	e: 3538, MW-3, M	IW-3, 9/26	/2006 12	2:29:00PM, Ch	ris M.					
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 20:16	CAW	GC-V4	. 1	BPI1365	ND	
Toluene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365	ND	
Ethylbenzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365	ND	
Methyl t-butyl ether	41	ug/L	1.0	EPA-8020	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365	ND	
Total Xylenes	ND	ug/L	0.60	EPA-8020	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365	ND	
Gasoline Range Organics (C4 - C12)	51	ug/L	50	Luft	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365	ND	A53
a,a,a-Trifluorotoluene (PID Surrogate)	78.8	%	70 - 130 (LCL - UCL)	EPA-8020	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365		
a,a,a-Trifluorotoluene (FID Surrogate)	97.0	%	70 - 130 (LCL - UCL)	Luft	09/27/06	09/27/06 20:16	CAW	GC-V4	1	BPI1365		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

BCL Sample ID: 0609993-04	Client Sam	ple Nam	e: 3538, MW-4, N	IW-4, 9/26	/2006 11	:55:00AM, Ch	ris M.					
		<del></del>			Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	ND	
Toluene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	ND	
Ethylbenzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	ND	
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8020	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	ND	
Total Xylenes	ND	ug/L	0.60	EPA-8020	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	ND	
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	ND	
a,a,a-Trifluorotoluene (PID Surrogate)	76.4	%	70 - 130 (LCL - UCL)	EPA-8020	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365	•	
a,a,a-Trifluorotoluene (FID Surrogate)	94.5	%	70 - 130 (LCL - UCL)	Luft	09/27/06	09/27/06 18:33	CAW	GC-V4	1	BPI1365		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

BCL Sample ID: 0609993-05	Client Sam	ple Nam	e: 3538, MW-5, M	W-5, 9/26	/2006 1:	:26:00PM, Chr	is M.	•				
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	ND	
Toluene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	ND	
Ethylbenzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	ND	
Methyl t-butyl ether	ND	ug/L	1.0 ·	EPA-8020	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	ND	
Total Xylenes	ND	ug/L	0.60	EPA-8020	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	ND	
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	ND	
a,a,a-Trifluorotoluene (PID Surrogate)	72.9	%	70 - 130 (LCL - UCL)	EPA-8020	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365		
a,a,a-Trifluorotoluene (FID Surrogate)	91.5	%	70 - 130 (LCL - UCL)	Luft	09/27/06	09/27/06 18:59	CAW	GC-V4	1	BPI1365	<u> </u>	



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

BCL Sample ID: 0609993-06	Client Sam	ple Nam	e: 3538, MW-6, M	IW-6, 9/26	/2006 1	05:00PM, Chr	is M.					
	•				Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365	ND	
Toluene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365	ND	
Ethylbenzene	ND	ug/L	0.30	EPA-8020	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365	ND	
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8020	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BP11365	ND	
Total Xylenes	ND	ug/L	0.60	EPA-8020	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365	ND	
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365	ND	
a,a,a-Trifluorotoluene (PID Surrogate)	80.3	%	70 - 130 (LCL - UCL)	EPA-8020	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365		
a,a,a-Trifluorotoluene (FID Surrogate)	102	%	70 - 130 (LCL - UCL)	Luft	09/27/06	09/27/06 19:25	CAW	GC-V4	1	BPI1365		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

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

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

								,		Contro	ol Limits
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Bromodichloromethane	BPJ0127	Matrix Spike	0609993-01	ND	27.220	25.000	ug/L		109		70 - 130
		Matrix Spike Duplicate	0609993-01	ND	27.850	25.000	ug/L	1.82	111	20	70 - 130
Chlorobenzene	BPJ0127	Matrix Spike	0609993-01	ND	27.380	25.000	ug/L		110		70 - 130
		Matrix Spike Duplicate	0609993-01	ND	27.440	25.000	ug/L	0.00	110	20	70 - 130
Chloroethane	BPJ0127	Matrix Spike	0609993-01	ND	26.190	25.000	ug/L		105		70 - 130
		Matrix Spike Duplicate	0609993-01	ND	25.760	25.000	ug/L	1.92	103	20	70 - 130
1,4-Dichlorobenzene	BPJ0127	Matrix Spike	0609993-01	ND	27.040	25.000	ug/L		108		70 - 130
		Matrix Spike Duplicate	0609993-01	ND .	27.210	25.000	ug/L	0.922	109	20	70 - 130
1,1-Dichloroethane	BPJ0127	Matrix Spike	0609993-01	0.13000	27.940	25.000	ug/L		111	· · · · · · · · · · · · · · · · · · ·	70 - 130
		Matrix Spike Duplicate	0609993-01	0.13000	27.680	25.000	ug/L	0.905	110	20	70 - 130
1,1-Dichloroethene	BPJ0127	Matrix Spike	0609993-01	0.60000	28.620	25.000	ug/L	• •	112		70 - 130
		Matrix Spike Duplicate	0609993-01	0.60000	28.460	25.000	ug/L	0.897	111	20	70 - 130
Trichloroethene	BPJ0127	Matrix Spike	0609993-01	ND	27.790	25.000	ug/L		111		70 - 130
·		Matrix Spike Duplicate	0609993-01	ND	27.990	25.000	ug/L	0.897	112	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BPJ0127	Matrix Spike	0609993-01	ND	10.030	10.000	ug/L		100		76 - 114
		Matrix Spike Duplicate	0609993-01	ND	9.9300	10.000	ug/L		99.3		76 - 114
Toluene-d8 (Surrogate)	BPJ0127	Matrix Spike	0609993-01	ND	9.9600	10.000	ug/L		99.6		88 - 110
		Matrix Spike Duplicate	0609993-01	ND	10.080	10.000	ug/L		101		88 - 110
4-Bromofluorobenzene (Surrogate)	BPJ0127	Matrix Spike	0609993-01	ND	10.390	10.000	ug/L		104		86 - 115
		Matrix Spike Duplicate	0609993-01	ND	10.220	10.000	ug/L		102		86 - 115



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

## Purgeable Aromatics and Total Petroleum Hydrocarbons

**Quality Control Report - Precision & Accuracy** 

										Contro	ol Limits
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery Lab Quals
Benzene	BPI1365	Matrix Spike	0608879-50	ND	39.490	40.000	ug/L	•	98.7		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	40.198	40.000	ug/L	1.31	100	20	70 - 130
Toluene	BPI1365	Matrix Spike	0608879-50	ND	39.704	40.000	ug/L		99.3		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	39.886	40.000	ug/L	0.402	99.7	20	70 - 130
Ethylbenzene	BP11365	Matrix Spike	0608879-50	ND	40.823	40.000	ug/L		102		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	40.982	40.000	ug/L	0.00	102	20	70 - 130
Methyl t-butyl ether	BP11365	Matrix Spike	0608879-50	ND	40.885	40.000	ug/L	<del></del>	102		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	39.455	40.000	ug/L	3.39	98.6	20	70 - 130
Total Xylenes	BPI1365	Matrix Spike	0608879-50	ND	123.78	120.00	ug/L		103		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	123.71	120.00	ug/L	0.00	103	20	70 - 130
Gasoline Range Organics (C4 - C12)	BPI1365	Matrix Spike	0608879-50	ND	1013.1	1000.0	ug/L		101		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	1009.7	1000.0	ug/L	0.00	101	20	70 - 130
a,a,a-Trifluorotoluene (PID Surrogate)	BPI1365	Matrix Spike	0608879-50	ND	35.896	40.000	ug/L		89.7		70 - 130
<u> </u>		Matrix Spike Duplicate	0608879-50	ŅD	35.960	40.000	ug/L		89.9		70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	BPI1365	Matrix Spike	0608879-50	ND	39.239	40.000	ug/L		98.1		70 - 130
		Matrix Spike Duplicate	0608879-50	ND	39.187	40.000	ug/L		98.0		70 - 130



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

### Volatile Organic Analysis (EPA Method 8260)

**Quality Control Report - Laboratory Control Sample** 

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals
Bromodichloromethane	BPJ0127	BPJ0127-BS1	LCS	27.010	25.000	0.50	ug/L	108	70 - 130		
Chlorobenzene	BPJ0127	BPJ0127-BS1	LCS	25.810	25.000	0.50	ug/L	103	70 - 130		
Chloroethane	BPJ0127	BPJ0127-BS1	LCS ·	25.080	25.000	0.50	ug/L	100	70 - 130		
1,4-Dichlorobenzene	BPJ0127	BPJ0127-BS1	LCS	25.750	25.000	0.50	ug/L	103	70 - 130		
1,1-Dichloroethane	BPJ0127	BPJ0127-BS1	LCS	27.480	25.000	0.50	ug/L	110	70 - 130		
1,1-Dichloroethene	BPJ0127	BPJ0127-BS1	LCS	27.780	25.000	0.50	ug/L	111	70 - 130		
Trichloroethene	BPJ0127	BPJ0127-BS1	LCS	31.990	25.000	0.50	ug/L	128	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BPJ0127	BPJ0127-BS1	LCS	10.240	10.000		ug/L	102	76 - 114	·	
Toluene-d8 (Surrogate)	BPJ0127	BPJ0127-BS1	LCS	10.040	10.000		ug/L	100	88 - 110	· · · · · · · · · · · · · · · · · · ·	
4-Bromofluorobenzene (Surrogate)	BPJ0127	BPJ0127-BS1	LCS	9.7000	10.000		ug/L	97.0	86 - 115		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

## Purgeable Aromatics and Total Petroleum Hydrocarbons

**Quality Control Report - Laboratory Control Sample** 

•									Contro		
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Percent RPD Recovery	RPD	Lab Quals
Benzene	BPI1365	BPI1365-BS1	LCS	40.404	40.000	0.30	ug/L	101	85 - 115		
Toluene	BPI1365	BPI1365-BS1	LCS	39.694	40.000	0.30	ug/L	99.2	85 - 115		
Ethylbenzene	BPI1365	BPI1365-BS1	LCS	40.890	40.000	0.30	ug/L	102	85 - 115		
Methyl t-butyl ether	BPI1365	BPI1365-BS1	LCS	36.944	40.000	1.0	ug/L	92.4	85 - 115		
Total Xylenes	BPI1365	BPI1365-BS1	LCS	123.11	120.00	0.60	ug/L	103	85 - 115		
Gasoline Range Organics (C4 - C12)	BPI1365	BPI1365-BS1	LCS	997.15	1000.0	50	ug/L	99.7	85 - 115		
a,a,a-Trifluorotoluene (PID Surrogate)	BPI1365	BPI1365-BS1	LCS	35.380	40.000		ug/L	88.4	70 - 130		
a,a,a-Trifluorotoluene (FID Surrogate)	BPI1365	BPI1365-BS1	LCS	38.959	40.000		ug/L	97,4	70 - 130		



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

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

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

				<del>-</del>			
Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Bromodichloromethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.11	
Bromoform	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.22	
Bromomethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	1.0	0.31	
Carbon tetrachloride	BPJ0127	BPJ0127-BLK1	ND .	ug/L	0.50	0.14	
Chlorobenzene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.12	
Chloroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.12	
Chloroform	BPJ0127	BPJ0127-BLK1	ND .	ug/L	0.50	0.076	
Chloromethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.14	
Dibromochloromethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.12	
1,2-Dichlorobenzene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.11	
1,3-Dichlorobenzene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.073	
1,4-Dichlorobenzene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.099	
Dichlorodifluoromethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.10	
1,2-Dichloroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.15	
cis-1,2-Dichloroethene	BPJ0127	BPJ0127-BLK1	ND	ug/L_	0.50	0.20	
trans-1,2-Dichloroethene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.18	
1,2-Dichloropropane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.069	
cis-1,3-Dichloropropene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.075	
trans-1,3-Dichloropropene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.15	
Methylene chloride	BPJ0127	BPJ0127-BLK1	ND	ug/L	1.0	0.16	***
Methyl t-butyl ether	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.13	***************************************
1,1,2,2-Tetrachloroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.14	
Tetrachloroethene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.18	
- · · · · · · · · · · · · · · · · · · ·							



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

### **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
1,1,1-Trichloroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.27	
1,1,2-Trichloroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.14	
Trichloroethene	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.18	
Trichlorofluoromethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.13	
1,1,2-Trichloro-1,2,2-trifluoroethane	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.11	
Vinyl chloride	BPJ0127	BPJ0127-BLK1	ND	ug/L	0.50	0.16	
1,2-Dichloroethane-d4 (Surrogate)	BPJ0127	BPJ0127-BLK1	107	%	76 - 114 (L	CL - UCL)	
Toluene-d8 (Surrogate)	BPJ0127	BPJ0127-BLK1	102	%	88 - 110 (L	.CL - UCL)	
4-Bromofluorobenzeпе (Surrogate)	BPJ0127	BPJ0127-BLK1	91.4	%	86 - 115 (L	.CL - UCL)	



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

## Purgeable Aromatics and Total Petroleum Hydrocarbons

**Quality Control Report - Method Blank Analysis** 

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BPI1365	BPI1365-BLK1	ND	ug/L	0.30	0.033	
Toluene	BPI1365	BPI1365-BLK1	ND	ug/L	0.30	0.093	
Ethylbenzene	BPI1365	BPI1365-BLK1	ND	ug/L	0.30	0.035	
Methyl t-butyl ether	BPI1365	BPI1365-BLK1	ND	ug/L	1.0	0.033	
Total Xylenes	BPI1365	BPI1365-BLK1	ND	ug/L	0.60	0.098	
Gasoline Range Organics (C4 - C12)	BPI1365	BPI1365-BLK1	ND	ug/L	50	6.5	
a,a,a-Trifluorotoluene (PID Surrogate)	BPI1365	BPI1365-BLK1	79.4	%	70 - 130 (	LCL - UCL)	
a,a,a-Trifluorotoluene (FID Surrogate)	BPI1365	BPI1365-BLK1	99:9	%	70 - 130 (	LCL - UCL)	



Project: 3538

Project Number: [none]

Project Manager: Anju Farfan

Reported: 10/06/06 11:02

#### **Notes and Definitions**

Estimated value

A53 Chromatogram not typical of gasoline.

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.		SAM	PLE REC	EIPT FOI	RM	Rev. No.	10 01/2	1/04 <b>f</b>	age	Of
Submission #: 06 - 099	93 p	roject Co	ode:			ТВ	Batch #			
SHIPPING INFOR	MATION					SHIPP	NG CON	TAINER		<del></del>
Federal Express □ UPS □	Hand Del	ivery 🗆		•	tce Ches			ne 🗆		
BC Lab Field Service 🗹 Other E	3 (Specify	r)			Box	•	Oth	er 🗆 (Sp	ecify)	
Refrigerant: Ice 🖾 Blue Ice 🗆	None	•□ O	ther 🗆	Comme	nts:				*	
Custody Seals: Ice Chest □	Containe	rs 🛚	None 🗘	∕ Comme	ents:					
Intact? Yes □ No □	Intact? Ye	s 🗆 No 🗅								
All samples received? Yes ☑ No □	All sample	s container	s intact?	es 🗹 No		Descrip	tion(s) matc	h COC? Y	es No	
COC Received		Ice C	hest ID	3IW	Emis	sivity	0.95	Date/T	ime 4/2	26/06
YES INO	.		rature:			-	locar		•	
		Thermome	ter ID:	<u> </u>				Analys	t Init 💍	1 V
SAMPLE CONTAINERS	<u> </u>			T	SAMPLE	NUMBERS				1
	11	2	3	4	5	- 6	7		9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL	<b></b>									
PT PE UNPRESERVED	<u></u>			<u> </u>	ļ	ļ				ļ
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PT INORGANIC CHEMICAL METALS							<b></b>			ļ
PT CYANIDE	·									ļ.
PT NITROGEN FORMS	<del></del>				<u> </u>					
PT TOTAL SULFIDE			,		ļ					
20z. NITRATE / NITRITE						<u> </u>				
100ml TOTAL ORGANIC CARBON								<del></del>		ļ
OT TOX							<del> </del>			
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS						ļ 	<del>                                     </del>		<del></del>	
40ml VOA VIAL TRAVEL BLANK	x a	9 0	7-/	0 6	7	<i>a c</i>	<del> </del>			ļ
40ml VOA VIAL	A.9,	AG	44.0	11 ·P	A6	11,0	<del>  ' '</del>	( )	- 1	1 1
QT EPA 413.1, 413.2, 418.1							<b> </b>			ļ <u></u>
PT ODOR								·- · · · · · · · · · · · · · · · · · ·		ļi
RADIOLOGICAL										ļ
BACTERIOLOGICAL				•				<del></del>		-
40 ml VOA VIAL- 504						<del></del>	<b></b>		· · · · · · · · · · · · · · · · · · ·	
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OT EPA 515.1/8150									-1-11-11-11-11-11-11-11-11-11-11-11-11-	
OT EPA 525							<u> </u>			
OT EPA 525 TRAVEL BLANK										<del></del>
100ml EPA 547										<u> </u>
100ml EPA 531.1						· · · · · · · · · · · · · · · · · · ·				<b> </b>
QT EPA 548						<del></del>	<del> </del>			ļ
OT EPA 549					·					
OT EPA 632										
OT 64/06								<del> </del>		
OT OA/OC										
OT AMBER							<del></del>			
8 OZ. JAR						=				
32 OZ. JAR										<b>-</b>
SOIL SLEEVE					•					<b></b>
PCB VIAL						···				<b></b>
PLASTIC BAG										<b>_</b>
FERROUS IRON						•				<b></b>
ENCORE										
omments:					<del></del>	<del></del>	1		and the second s	

Comments:
Sample Numbering Completed By:

Date/Time: 9/26/06 2355 [H:\DOCS\WP80\LAB\_DOCS\FORMS\SAMREC2.WPD]

Page 1 of 1

### **BC LABORATORIES, INC.**

4100 Atlas Court ☐ Bakersfield, CA 93308 (661) 327-4911 ☐ EAX (661) 227-1019

	ONA! ON!ES, INC.	(661) 327-4911 D FAX (661) 327-1918					CHAIN OF CUSTODY									
		$\mathbb{O}^{\epsilon}$	5-09999	3		An	aly	/sis	Re	que	este	∍d				
Circle one	: Phillips 66 / Unocal	Consultant Firm: TF	RC	MATRIX	rð.			Ś								
Address:.411 West MacArthur Blvd.		21 Technology Driv Irvine, CA 92618-23 Attn: Anju Farfan	(GW) Ground- water (S) Soil	Gas by 8015			& oxygenates	8260B				8021B	ested			
City: Oakla	and	4-digit site#: 3538		(WW)	by 8021B,	Σ	15		BY 8	9		m	by	Regu		
		Work Order# 1178TI	Waste- water	× 80	8015M	by 8015	IM /	BTEX/MTBE/OXYs BY	326(	AIS.	260	(8010 list)	ne H			
State: CA	Zip:	Project #: 41060001	(SL)	3E b		EL b	st w		by 8260B	30/1	by 8260B					
COP Mana	ger: Shelby Lathrop	Sampler Name:	Chris	Sludge	'MTE	AS	IESI	<u>=</u>	MTE	VOL	by (			onu.		
Lab#	Sample Description	Field Point Name	Date & Time Sampled		BTEX/MTBE	TPH GAS by	TPH DIESEL	8260 full list w/ MTBE	втех/	ETHANOL	TPH-g by GC/MS	EDB/EDC	HVOCs	Turnaround Time Requested		
	- )	MW-1	09-26-06/ 1124	GW	Х								х	ST		
	-2	MW-2	12/3	GW	X									ST		
	-3	MW-3	1229	GW	Х	-								ST		
	-4	MW-4	1155	GW	Х									ST		
	-5	MW-5	1326	GW	Х								+	ST		
	-6	MW-6	1305	GW	Х									ST		
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#### **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 Conoc oPhillips Refinery at Rodeo, California. Disposal at the Rodeo facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures – Water Quality and Compliance", as revised on February 7, 2003. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R -149, which is on file at TRC's Concord Office. Purge water containing a significant amount of liquid -phase hydrocarbons was accumulated separately in drums for transportation and disposal by Filter Recycling, Inc.

#### Limitations

The fluid level monitoring and groundwater sampling activities summarized in this report have been performed under the responsible charge of a California Registered Geologist or Registered Civil Engineer and have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an analysis of the observed conditions. If actua 1 conditions differ from those described in this report, our office should be notified.