#### **RECEIVED**

3:00 pm, Feb 05, 2009

Alameda County Environmental Health



February 2, 2009

Barbara Jakub Alameda County Health Agency 1131 Harbor Bay parkway, Suite250 Alameda, California 94502-577

Re: Quarterly Summary Report—First Quarter 2008

76 Service Station # 0018 RO # 0243

6201 Claremont Ave. Oakland, CA

Dear Ms. Jakub:

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 call me at (916) 558-7666.

Sincerely,

Terry L. Grayson Site Manager

Risk Management & Remediation

February 2, 2009

Ms. Barbara Jakub Alameda County Health Care Services 1131 Harbor Bay Parkway Alameda, California 94502-6577



RE: Quarterly Summary Report - First Quarter 2008

Delta Project No.: C1Q-0018-604

ACEH Case No: RO243

Dear Ms. Jakub:

On behalf of ConocoPhillips (COP), Delta Consultants, Inc. (Delta) is forwarding the quarterly summary report for the following location:

#### **Service Station**

Location

ConocoPhillips Site No. 0018

6201 Claremont Avenue Oakland, California

Sincerely,

**Delta Consultants** 

Debbie Bryan Project Geologist

PG 7745



Cc: Mr. Terry Grayson - ConocoPhillips (electronic copy only)



#### **Quarterly Summary Report First Quarter – 2008**

#### 76 Branded Facility No. 0018 6201 Claremont Avenue Oakland, Alameda County, CA

#### PREVIOUS ASSESSMENT ACTIVITIES

March 1997 Kaprealian Engineering Inc. (KEI) collected nine soil and one grab groundwater sample during UST and product line replacement activities. One soil sample collected from the UST excavation contained 2.6 milligrams per kilograms (mg/kg) of total petroleum hydrocarbons as gasoline (TPH-G). Another soil sample collected from beneath a dispenser island contained 1.4 mg/kg TPH-G, 0.012 mg/kg benzene, and 1.4 mg/kg methyl tertiary butyl ether (MTBE). The groundwater sample collected from the UST excavation contained 6,100 micrograms per liter ( $\mu$ g/L) of TPH-G and 54  $\mu$ g/L benzene.

<u>March 1998</u> Tosco was issued a Notice of Responsibility by Alameda County Health Care Services (ACHCS).

<u>December 2000</u> Gettler-Ryan Inc. installed three groundwater monitoring wells to depths of 30 feet below ground surface (bgs). Five soil samples were collected from the borings for the wells. Sample MW-1-25.5, from a depth of 25.5 foot bgs, contained 19 mg/kg of TPH-G and 0.018 mg/kg of benzene. Initial groundwater samples contained low ( $\leq$ 120 micrograms per liter (ug/l)) concentrations of TPH-G, benzene, and MTBE.

<u>November 2000</u> A quarterly monitoring program, utilizing the three on-site monitoring wells (MW-1 through MW-3), was initiated.

October 2003 Site environmental consulting responsibilities were transferred to TRC.

<u>January 2006</u> TRC completed a No Further Action Required Report – Request for Closure.

April 2006 TRC completed a sensitive receptor survey.

October 2007 Site environmental consulting responsibilities were transferred to Delta Consultants.

#### SENSITIVE RECEPTORS

A sensitive receptor survey for the site was conducted in April 2006. According to the Department of Water Resources (DWR) records, no water supply wells are located within one-half mile of the site.

#### REMEDIATION STATUS

Remediation is not currently being conducted at the site.

#### MONITORING AND SAMPLING

The groundwater monitoring well network, consisting of three on-site monitoring wells, has been monitored and sampled on a quarterly basis since October 2000. During the most recent groundwater sampling event conducted on March 26, 2008, reported depth to groundwater ranged from 16.74 feet (MW-3) to 17.79 feet (MW-2) below top of casing (TOC), with 4.52 feet average increase in groundwater elevation across the site. Groundwater elevation beneath the site typically fluctuates by approximately 5 feet annually.

The groundwater flow direction during the first quarter 2008 was reported southwest at a gradient of 0.01 feet per feet (ft/ft). This is consistent with a gradient of 0.01 ft/ft southwest

during the previous sampling event (December 14, 2008). Reported historical groundwater flow direction has been primarily to the southwest.

During the first quarter 2008, groundwater samples were collected from all three on-site wells (MW-1, MW-2, MW-3). Samples were analyzed for TPH-G by GC/MS; benzene, toluene, ethylbenzene and xylenes (BTEX), MTBE, and ethanol by US Environmental Protection Agency (EPA) Method 8260. In addition, well MW-1 was also analyzed for oxygenates (tertiary butyl alcohol (TBA), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and di-isopropyl ether (DIPE)), 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB) by EPA Method 8260.

During the first quarter 2008, TPH-G was reported in only one well (MW-1) at a concentration of 230 ug/L. This is an increase from a concentration of 76  $\mu$ g/L in monitoring well MW-1 during the previous sampling event, but is within historic range. With the exception of fourth quarter 2006, the TPH-G concentration in well MW-1 has typically been at or below 300  $\mu$ g/L for the past twelve consecutive sampling events. TPH-G has never been detected in wells MW-2 and MW-3.

Benzene was not detected in any of the three site wells during the first quarter 2008 sampling event. Benzene has not been detected in any site well since at least 2005.

During the first quarter 2008, MTBE was reported in only one of the three wells sampled (MW-1), with a concentration of 18 ug/l. The MTBE concentration in well MW-1 has been below 20  $\mu$ g/L for the past eight consecutive sampling events. The maximum historical MTBE concentration detected in MW-1 was 150 ug/l in August 2001. MTBE has never been detected in well MW-2, and has only been detected sporadically in well MW-3. The most recent detection of MTBE in well MW-3 was at a concentration of 3.4 ug/l (September 2006).

Ethanol was not detected in any site well during first quarter 2008. No other oxygenates, or 1,2-DCA and EDB, were detected in well MW-1 during the current event.

#### CONCLUSIONS AND RECOMMENDATIONS

The first quarter 2008 analytical data indicates that the petroleum hydrocarbon and oxygenate concentrations observed beneath the southern portion of the site (MW-1) during the fourth quarter 2007 have remained mostly stable. Some fluctuation, similar to historical results, was observed. Concentrations in MW-1 appear to fluctuate seasonally with variation in groundwater elevation. However, based upon historic data, concentrations of TPH-G and MTBE in well MW-1 appear to be gradually declining.

Groundwater monitoring will continue on a quarterly basis. Groundwater analysis will include TPH-G, BTEX compounds, oxygenates (DIPE, TAME, ETBE, TBA, MTBE, and ethanol), and EDB and 1,2-DCA by EPA Method 8260B.

#### THIS QUARTER'S ACTIVITIES (First Quarter 2008)

TRC performed the First Quarter 2008 quarterly monitoring and sampling event.

#### **NEXT QUARTER'S ACTIVITIES (Second Quarter 2008)**

- TRC to prepare a quarterly monitoring report for Second Quarter 2008.
- TRC to conduct the Second Quarter 2008 groundwater monitoring and sampling event, and prepare a quarterly monitoring report.

**CONSULTANT:** Delta Consultants





21 Technology Drive Irvine, CA 92618

949.727.9336 PHONE 949.727.7399 FAX

www.TRCsolutions.com

DATE:

April 16, 2008

TO:

ConocoPhillips Company

76 Broadway

Sacramento, CA 95818

ATTN:

MR. BILL BORGH

SITE:

**76 STATION 0018** 

6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA

RE:

QUARTERLY MONITORING REPORT

JANUARY THROUGH MARCH 2008

Dear Mr. Borgh:

Please find enclosed our Quarterly Monitoring Report for 76 Station 0018, located at 6201 Claremont Avenue, Oakland, California. If you have any questions regarding this report, please call us at (949) 727-9336.

Sincerely,

**TRC** 

Anju Farfan

Groundwater Program Operations Manager

CC:

Mr. Daniel Davis, Delta Consultants (4 copies)

Enclosures 20-0400/0018R18.QMS

### QUARTERLY MONITORING REPORT JANUARY THROUGH MARCH 2008

76 STATION 0018 6201 Claremont Avenue Oakland, California

Prepared For:

Mr. Bill Borgh CONOCOPHILLIPS COMPANY 76 Broadway Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations

Date: 4/15/08



	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
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 – 03/26/08 Groundwater Sampling Field Notes – 03/26/08
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

# Summary of Gauging and Sampling Activities January 2008 through March 2008 76 Station 0018 6201 Claremont Avenue Oakland, CA

Project Coordinator: Bill Borgh Telephone: 916-558-7612	Water Sampling Contractor: <i>TRC</i> Compiled by: <b>Christina Carrillo</b>
Date(s) of Gauging/Sampling Event: 03/26/08	Complied by: Christina Carrino
Sample Points	
Groundwater wells: <b>3</b> onsite, <b>0</b> 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>	Points gauged: 3 Points sampled: 3
Liquid Phase Hydrocarbons (LPH) Sample Points with LPH: 0 Maximum thickness (	feet): n/a
LPH removal frequency: <b>n/a</b> Treatment or disposal of water/LPH: <b>n/a</b>	Method: <b>n/a</b>
Hydrogeologic Parameters	
Depth to groundwater (below TOC): Minimum: 1 Average groundwater elevation (relative to available Average change in groundwater elevation since prev Interpreted groundwater gradient and flow direction:  Current event: 0.01 ft/ft, southwest  Previous event: 0.01 ft/ft, southwest (12/14)	ious event: 4.52 feet
Selected Laboratory Results	
The state of the s	mple Points above MCL (1.0 μg/l): <b>n/a</b>
•	laximum: 230 μg/l (MW-1) laximum: 18 μg/l (MW-1)
Notes:	

# **TABLES**

#### TABLE KEY

#### STANDARD ABBREVIATIONS

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

#### REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 0018 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

## Contents of Tables 1 and 2 Site: 76 Station 0018

(EDB)

Current E	vent												
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)
Table 1a	Well/ Date	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME					
Historic D	)ata												

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
Table 2a	Well/ Date	TBA	Ethanol (8260B)	Ethylene- dibromide	1,2-DCA (EDC)	DIPE	ETBE	TAME						

Comments

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
March 26, 2008

#### **76 Station 0018**

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/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	
MW-1		(Screen I	nterval in fe	et: 10.0-3	0.0)									
03/26/0	8 208.15	16.87	0.00	191.28	4.15		230	ND<0.50	ND<0.50	ND<0.50	ND<1.0		18	
MW-2		(Screen I	nterval in fe	et: 10.0-3	0.0)									
03/26/08	8 210.27	17.79	0.00	192.48	4.73		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-3		(Screen I	nterval in fe	et: 10.0-3	0.0)									
03/26/08	8 208.98	16.74	0.00	192.24	4.69		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	

Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
76 Station 0018

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	
	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-1 03/26/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
<b>MW-2</b> 03/26/08		ND<250			<del></del>			
<b>MW-3</b> 03/26/08		ND<250						

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through March 2008
76 Station 0018

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)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	
MW-1	(	Screen Inte	erval in feet	t: 10.0-30.0	))									
08/24/0	0 208.15	18.55	0.00	189.60		120		0.67	ND	0.86	1.4	54	54	
11/16/0	0 208.15	20.30	0.00	187.85	-1.75	169		ND	1.20	1.74	0.629	68.6	97.7	
02/09/0	1 208.15	20.16	0.00	187.99	0.14	330		1.3	ND	1.0	4.6	140	150	
05/11/0	1 208.15	17.68	0.00	190.47	2.48	1250		ND	ND	ND	ND	145	122	
08/10/0	1 208.15	20.38	0.00	187.77	-2.70	580		ND<0.50	ND<0.50	ND<0.50	ND<0.50	110	150	
11/07/0	1 208.15	22.68	0.00	185.47	-2.30	250		ND<0.50	1.5	ND<0.50	ND<0.50	120	100	
02/06/0	2 208.15	16.20	0.00	191.95	6.48	790		ND<2.5	12	8.8	ND<2.5	90	72	
05/08/0	2 208.15	17.54	0.00	190.61	-1.34	890		ND<2.5	ND<2.5	ND<2.5	ND<2.5	78	81	
08/09/0	2 208.15	20.21	0.00	187.94	-2.67		450	ND<0.50	ND<0.50	ND<0.50	ND<1.0		100	
11/29/0	2 208.15	22.33	0.00	185.82	-2.12		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		72	
02/03/0	3 208.15	16.41	0.00	191.74	5.92		540	ND<0.50	ND<0.50	ND<0.50	ND<1.0		40	
05/05/0	3 208.15	16.09	0.00	192.06	0.32		670	ND<2.5	ND<2.5	ND<2.5	ND<5.0		57	
09/04/0	3 208.15	21.46	0.00	186.69	-5.37									No analysis; past holding time
11/13/0	3 208.15	21.52	0.00	186.63	-0.06		97	ND<0.50	5.0	0.82	3.5		29	
01/29/0	4 208.15	17.51	0.00	190.64	4.01		520	ND<0.50	ND<0.50	ND<0.50	ND<1.0		44	
05/07/0	4 208.15	16.74	0.00	191.41	0.77		180	ND<0.50	ND<0.50	ND<0.50	ND<1.0		25	
08/27/0	4 208.15	19.40	0.00	188.75	-2.66		100	ND<0.50	ND<0.50	ND<0.50	ND<1.0		21	
11/23/0	4 208.15	19.82	0.00	188.33	-0.42		410	ND<0.50	ND<0.50	ND<0.50	ND<1.0		45	
02/09/0		15.81	0.00	192.34	4.01	~~	5700	ND<0.50	ND<0.50	ND<0.50	ND<1.0		40	
06/16/0	5 208.15	15.85	0.00	192.30	-0.04		200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		24	•
09/27/0	5 208.15	19.15	0.00	189.00	-3.30		300	ND<0.50	ND<0.50	ND<0.50	ND<1.0		19	
12/30/0	5 208.15	14.62	0.00	193.53	4.53		68	ND<0.50	ND<0.50	ND<0.50	ND<1.0		12	
03/08/0	6 208.15	11.69	0.00	196.46	2.93		130	ND<0.50	ND<0.50	ND<0.50	ND<1.0		21	

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through March 2008
76 Station 0018

Date Sampled		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)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(µg/l)	$(\mu g/l)$	(μg/l)	(µg/l)	
MW-1	continued						***					- TAPASA		
06/08/0	6 208.15	14.28	0.00	193.87	-2.59		66	ND<0.50	ND<0.50	ND<0.50	ND<1.0		16	
09/15/0	6 208.15	17.49	0.00	190.66	-3.21		96	ND<0.50	ND<0.50	ND<0.50	ND<0.50		6.1	
12/22/0	6 208.15	18.68	0.00	189.47	-1.19		570	ND<0.50	ND<0.50	ND<0.50	ND<0.50		18	
03/28/0	7 208.15	18.40	0.00	189.75	0.28		190	ND<0.50	ND<0.50	ND<0.50	ND<0.50		18	
06/25/0	7 208.15	20.01	0.00	188.14	-1.61		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		4.2	
09/22/0	7 208.15	21.23	0.00	186.92	-1.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		14	
12/14/0	7 208.15	21.02	0.00	187.13	0.21		76	ND<0.50	ND<0.50	ND<0.50	ND<1.0		16	
03/26/0	8 208.15	16.87	0.00	191.28	4.15		230	ND<0.50	ND<0.50	ND<0.50	ND<1.0		18	
MW-2	(S	Screen Inte	rval in feet	: 10.0-30.0	)									
08/24/0	0 210.27	19.69	0.00	190.58		ND		ND	ND	ND	ND	ND	ND	
11/16/0	0 210.27	21.61	0.00	188.66	-1.92	ND		ND	ND	ND	ND	ND	ND	
02/09/0	1 210.27	21.52	0.00	188.75	0.09	ND		ND	ND	ND	ND	ND	ND	
05/11/0	1 210.27	18.76	0.00	191.51	2.76	ND		ND	ND	ND	ND	ND	ND	
08/10/0	1 210.27	21.65	0.00	188.62	-2.89	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
11/07/0	1 210.27	24.25	0.00	186.02	-2.60	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<1.0	
02/06/02	2 210.27	18.22	0.00	192.05	6.03	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
05/08/02	2 210.27	18.63	0.00	191.64	-0.41	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
08/09/02	2 210.27	21.53	0.00	188.74	-2.90		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
11/29/02	2 210.27	23.73	0.00	186.54	-2.20		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
02/03/03	3 210.27	17.43	0.00	192.84	6.30		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
05/05/03	3 210.27	17.15	0.00	193.12	0.28		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
09/04/03	3 210.27	22.75	0.00	187.52	-5.60									No analysis; past holding time
11/13/03	3 210.27	23.02	0.00	187.25	-0.27		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
01/29/04	210.27	18.73	0.00	191.54	4.29		ND<50	0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
0018								Page 2	of 5					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through March 2008
76 Station 0018

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)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	
MW-2	continued								,,,,,,,,					
05/07/0	210.27	17.79	0.00	192.48	0.94		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
08/27/0	210.27	19.66	0.00	190.61	-1.87		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
11/23/0	210.27	21.20	0.00	189.07	-1.54		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
02/09/0	210.27	16.72	0.00	193.55	4.48		ND<50	0.69	1.5	ND<0.50	1.4		ND<0.50	
06/16/0	210.27	16.73	0.00	193.54	-0.01		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/27/0	210.27	20.41	0.00	189.86	-3.68		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
12/30/0	210.27	14.79	0.00	195.48	5.62		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	••	ND<0.50	
03/08/0	6 210.27	13.25	0.00	197.02	1.54		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
06/08/0	6 210.27	15.36	0.00	194.91	-2.11		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/15/0	6 210.27	18.61	0.00	191.66	-3.25		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
12/22/0	6 210.27	20.01	0.00	190.26	-1.40		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
03/28/0	7 210.27	19.60	0.00	190.67	0.41		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
06/25/0	7 210.27	21.34	0.00	188.93	-1.74		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
09/22/0	7 210.27	22.71	0.00	187.56	-1.37		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
12/14/0	7 210.27	22.52	0.00	187.75	0.19		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
03/26/0	8 210.27	17.79	0.00	192.48	4.73		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-3	(8	Screen Inte	rval in feet	: 10.0-30.0	))									
08/24/0			0.00	190.30	- <del>-</del>	ND		ND	ND	ND	ND	4.7	2.3	
11/16/0	0 208.98	20.56	0.00	188.42	-1.88	ND		ND	ND	ND	ND	ND	ND	
02/09/0	1 208.98	20.45	0.00	188.53	0.11	ND		ND	ND	ND	ND	ND	ND	
05/11/0	1 208.98	17.75	0.00	191.23	2.70	ND		ND	ND	ND	ND	ND	ND	
08/10/0	1 208.98	20.70	0.00	188.28	-2.95	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
11/07/0	1 208.98	23.02	0.00	185.96	-2.32	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	1.5	
02/06/0	2 208.98	17.19	0.00	191.79	5.83	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
0018								Page 3	3 of 5					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through March 2008
76 Station 0018

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)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	
MW-3	continued													
05/08/0	208.98	17.59	0.00	191.39	-0.40	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
08/09/0	208.98	3 20.48	0.00	188.50	-2.89		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
11/29/0	208.98	22.64	0.00	186.34	-2.16		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
02/03/0	3 208.98	16.46	0.00	192.52	6.18		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
05/05/0	208.98	16.16	0.00	192.82	0.30		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.6	
09/04/0	3 208.98	21.71	0.00	187.27	-5.55					mu				No analysis; past holding time
11/13/0	208.98	21.93	0.00	187.05	-0.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
01/29/0	208.98	17.79	0.00	191.19	4.14		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
05/07/0	208.98	16.79	0.00	192.19	1.00		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.55	
08/27/0	208.98	19.70	0.00	189.28	-2.91		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
11/23/0	208.98	20.30	0.00	188.68	-0.60		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
02/09/0	5 208.98	15.72	0.00	193.26	4.58		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.6	
06/16/0	208.98	15.67	0.00	193.31	0.05		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/30/0	05 208.98	19.47	0.00	189.51	-3.80		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	9/27/05 samples broke during shipment.
12/30/0	5 208.98	15.84	0.00	193.14	3.63		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
03/08/0	6 208.98	12.06	0.00	196.92	3.78		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
06/08/0	6 208.98	13.82	0.00	195.16	-1.76		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/15/0	06 208.98	17.67	0.00	191.31	-3.85		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		3.4	
12/22/0	6 208.98	19.10	0.00	189.88	-1.43		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
03/28/0	7 208.98	18.60	0.00	190.38	0.50		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
06/25/0	7 208.98	20.30	0.00	188.68	-1.70		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
09/22/0	7 208.98	21.61	0.00	187.37	-1.31		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<0.50	
12/14/0	7 208.98	21.43	0.00	187.55	0.18		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through March 2008
76 Station 0018

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	in	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
M	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	(μg/l)	(μg/l)	$(\mu g/l)$	
<b>MW-3</b> 03/26/0	<b>continued</b> 08 208.98		0.00	192.24	4.69		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1							
08/24/00	ND	ND			ND	ND	ND
11/16/00	ND	ND			ND	ND	ND
02/09/01	ND	ND	ND	ND	ND	ND	ND
05/11/01	ND	ND	ND	ND	ND	ND	ND
08/10/01	ND<100	ND<1000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/07/01	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
02/06/02	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
05/08/02	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
08/09/02	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/29/02	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
02/03/03	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
05/05/03	ND<500	ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10
11/13/03	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/29/04	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
05/07/04	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
08/27/04	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
11/23/04	7.5	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
02/09/05	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
06/16/05	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/27/05	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/30/05	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/08/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
06/08/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/15/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/22/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/28/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date Sampled	ТВА	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$
MW-1 co	ontinued					·	
06/25/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/22/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/14/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/26/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-2							
08/24/00	ND	ND			ND	ND	ND
11/16/00	ND	ND			ND	ND	ND
02/09/01	ND	ND	ND	ND	ND	ND	ND
05/11/01	ND	ND	ND	ND	ND	ND	ND
08/10/01	ND<100	ND<1000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/07/01	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
11/13/03		ND<500					
01/29/04		ND<500		·			
05/07/04		ND<50					
08/27/04		ND<50	~~				
11/23/04		ND<50					
02/09/05		ND<50					
06/16/05		ND<50					
09/27/05		ND<250					
12/30/05		ND<250					
03/08/06	, <b></b>	ND<250					
06/08/06		ND<250	, <b></b>				
09/15/06		ND<250	***				~-
12/22/06		ND<250					
03/28/07		ND<250					
06/25/07		ND<250					

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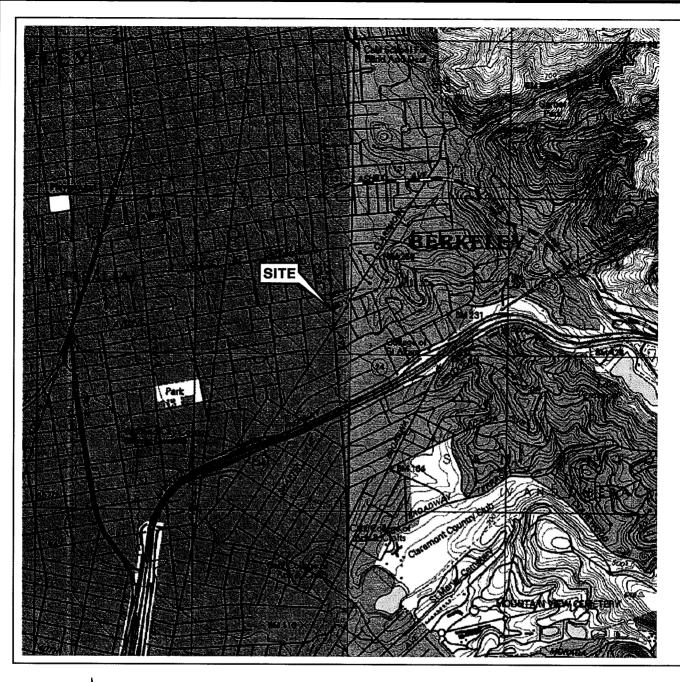
Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(µg/l)	(μg/l)	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$
MW-2 co	ontinued						
09/22/07		ND<250					
12/14/07		ND<250					
03/26/08		ND<250					
MW-3							
08/24/00	ND	ND			ND	ND	ND
11/16/00	ND	ND			ND	ND	ND
02/09/01	ND	ND	ND	ND	ND	ND	ND
05/11/01	ND	ND	ND	ND	ND	ND	ND
08/10/01	ND<100	ND<1000000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/07/01	ND<20	ND<500000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
08/09/02			ND	ND			
11/29/02			ND	ND			
02/03/03			ND<2.0	ND<2.0			
05/05/03			ND<1.0	ND<1.0			
11/13/03		ND<500					
01/29/04		ND<500				~~	
05/07/04		ND<50		***			
08/27/04		ND<50					
11/23/04		ND<50					
02/09/05		ND<50					
06/16/05		ND<50					
09/30/05		ND<250					
12/30/05		ND<250					
03/08/06		ND<250					
06/08/06		ND<250					
09/15/06		ND<250					

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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME			
w	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)			
MW-3 c	ontinued									
12/22/06		ND<250								
03/28/07		ND<250								
06/25/07		ND<250								
09/22/07		ND<250								
12/14/07		ND<250			~					
03/26/08		ND<250								

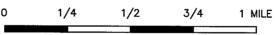




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United States Geological Survey 7.5 Minute Topographic Map: Oakland East & Oakland West Quadrangle

SOURCE:



SCALE 1:24,000



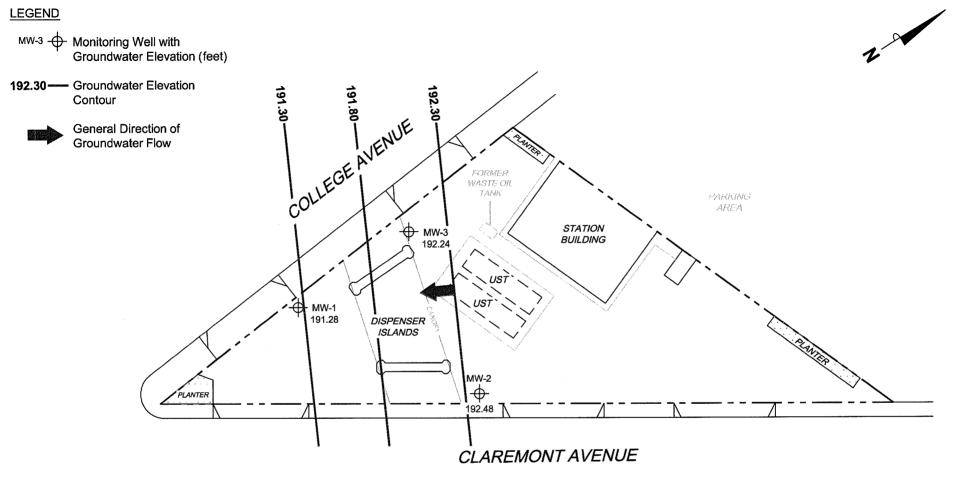


PROJECT:

154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA **VICINITY MAP** 





#### NOTES:

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



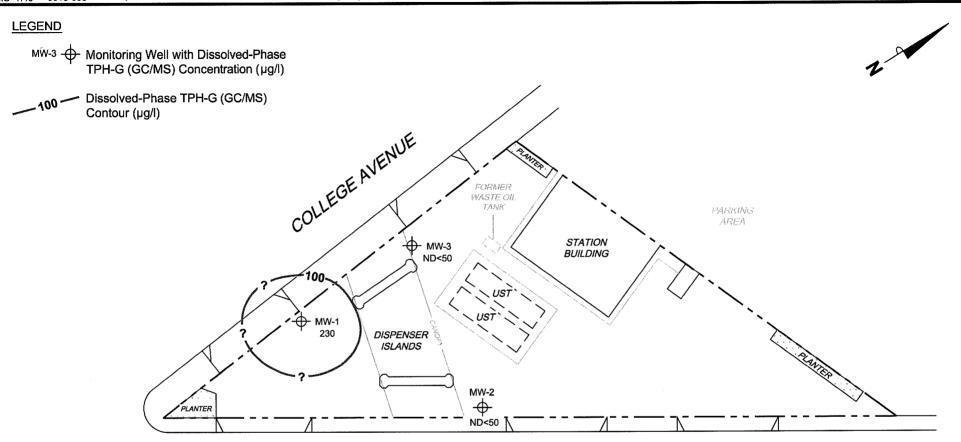
PROJECT:

FACILITY:

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154771

GROUNDWATER ELEVATION CONTOUR MAP March 26, 2008



#### **CLAREMONT AVENUE**



#### NOTES:

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. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.



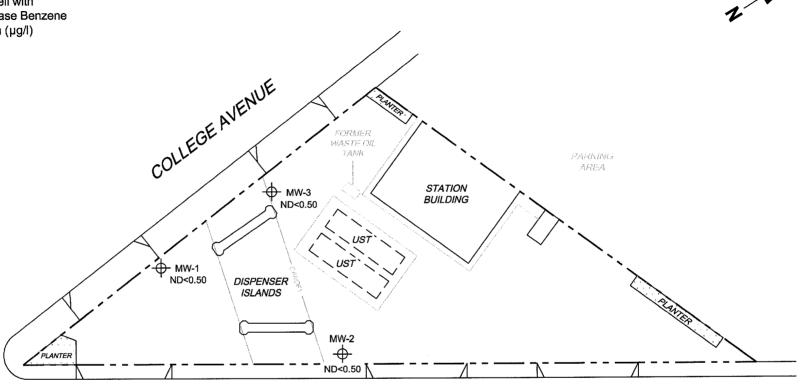
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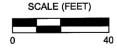
FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE TPH-G (GC/MS)
CONCENTRATION MAP
March 26, 2008

#### LEGEND



## **CLAREMONT AVENUE**





µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.



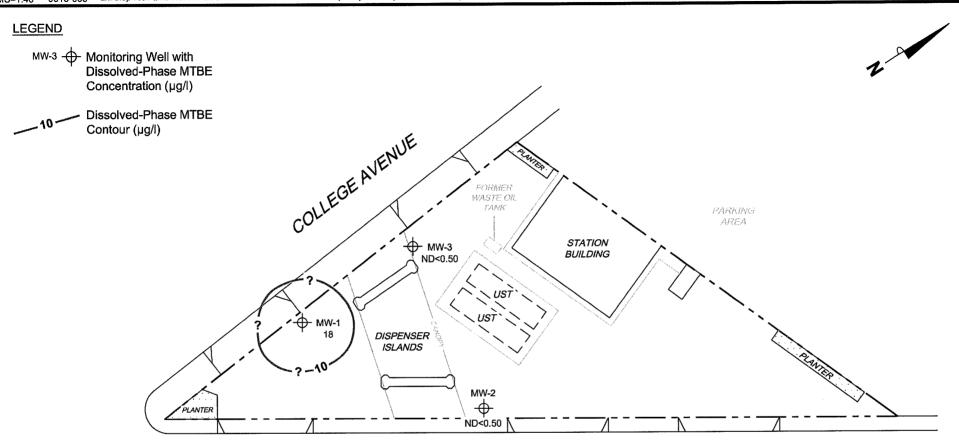
PROJECT:

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA

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DISSOLVED-PHASE BENZENE CONCENTRATION MAP March 26, 2008



## **CLAREMONT AVENUE**



#### NOTES:

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



PROJECT:

FACILITY:

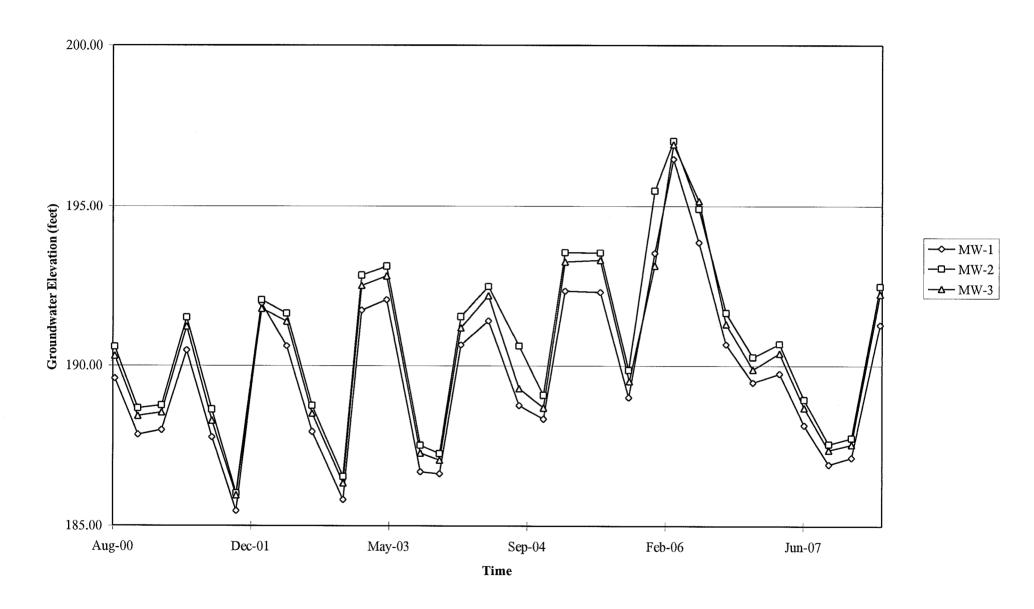
76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA

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DISSOLVED-PHASE MTBE CONCENTRATION MAP March 26, 2008

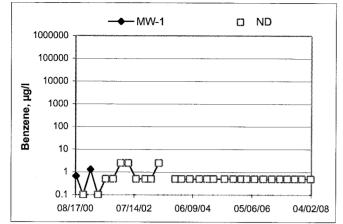
# **GRAPHS**

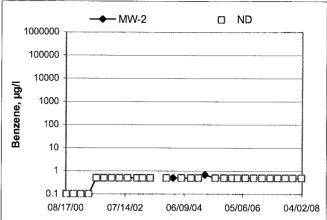
# Groundwater Elevations vs. Time 76 Station 0018

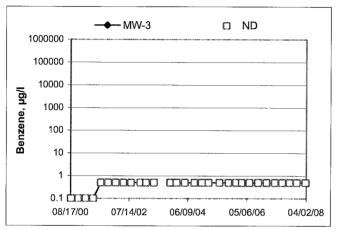


#### **Benzene Concentrations vs Time**

76 Station 0018







#### **GENERAL FIELD PROCEDURES**

#### **Groundwater Monitoring and Sampling Assignments**

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

#### Fluid Level Measurements

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

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

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

#### Purging and Groundwater Parameter Measurement

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

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter 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 car e 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 is 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 a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

#### **Exceptions**

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

3/7/08 version

## FIELD MONITORING DATA SHEET

Technician:	Andrew Vide	「う Job #/Task #:_	15A771	Date: _	03/26/08
Site #	00/8	Project Manager_	A. Collins	Page _	

Well#	Time Gauged	тос	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Sampled	Nisc. Well Notes			
MW-2	1030	$\overline{\checkmark}$	29.49	17,79			1113	2"			
Mw - 1	1044	7	2995		****	- Stronger of the Trans	1137	7"			
		<del>-</del>	<del> </del>	16.74			1156	Z''			
W.3.	1050		30.11	16.14			1120	L			
		**************************************						ay dan annina mine mile mine annina anni			
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						<del> </del>		Contraction whereign of the selection contracts and Milliotte are not supregrammed. Additional interior conditions			
FIELD DAT	A COMPL	ETE	QA/QC	)	COC	<u> </u>	/ELL BOX C	ONDITION SHEETS			
WTT CERT	TIFICATE		MANIFE	ST	ST DRUM INVENTORY TRAFFIC CONTROL						

## **GROUNDWATER SAMPLING FIELD NOTES**

Technician: Andrew Vidners Site: 00/8 Project No.: 154771 Date: 03/26/09 Well No. MW-Z Purge Method: 17.70 Depth to Water (feet): Depth to Product (feet): 29.49 Total Depth (feet) LPH & Water Recovered (gallons):\_\_\_ Water Column (feet): 11.70 Casing Diameter (Inches): 2 80% Recharge Depth(feet): 20.13 1 Well Volume (gallons):\_\_\_ Depth to Volume Conduc-Time Time Temperature Water Purged Start tivity Stop На D.O. ORP **Turbidity** (F,C) (feet) (gallons) (uS/cm) 1106 511.1 2 18.4 7-61 474.7 18.4 7.60 1107 482.9 7.47 Static at Time Sampled Total Gallons Purged Sample Time 17.97 1113 Comments: Well No.\_\_MW-Purge Method:\_\_\_\_\_\_D/A 16.87 Depth to Water (feet): Depth to Product (feet): Total Depth (feet) LPH & Water Recovered (gallons): Water Column (feet): Casing Diameter (Inches):\_\_\_\_\_ 80% Recharge Depth(feet): 19.40 1 Well Volume (gallons):\_\_\_\_ Depth to Volume Time Conduc-Time Temperature Water Purged Start Stop tivity рН D.O. **ORP** (F,C) **Turbidity** (feet) (gallons) (uS/cm) 1129 703.6 20.8 6.92 666.7 20.1 694 1130 622.5 19.9 6.95 Static at Time Sampled Total Gallons Purged Sample Time 19.49 1137 Comments:

# GROUNDWATER SAMPLING FIELD NOTES

		Т	echnician:	_Andre	en Vide	dra	-							
Site: 00	18		roject No.:					Da	te: 03	124/08				
Well No.	_MW-3			Purge Me	ethod:	DIA			7					
Depth to	Water (feet):	16.74		Purge Method: DIA  Depth to Product (feet):										
Total Dep	th (feet)	30.11		LPH & Water Recovered (gallons):										
80% Rech	lumn (feet):_	feet): 19.4		Casing Di	iameter (Inc lume (gallor	hes):_	2							
00 70 11001	rarge Depth(	reet): 1 ( -4-)	<u></u>	1 Weil Vo	lume (gallor	ns):			-	:				
Time	Time	Depth to	Volume	Conduc	-   <sub>-</sub>		T	1						
Start	Stop	Water (feet)		tivity (uS/cm)	Temper (F,(		рН	D.O.	ORF	Turbidi				
1144			2	192.5			7.27		_					
	1151		14	489.4.			7.24							
				509.3	18.6		7.19							
Stat	ic at Time S	Ompled.							<del></del>					
	19,41	arripied	Tot	al Gallons P		Sample Time								
Comments	:	<u> </u>			1156									
epth to Wa otal Depth Vater Colur	ater (feet): (feet)	et): Depth to Water		Depth to Pro LPH & Wate Casing Dian 1 Well Volur Conduc-	er Recovere neter (Inche	d (ga s):	llons):							
	Stop	(feet)	(gallons)	tivity (uS/cm)	(F,C)		pH	D.O.	ORP	Turbidity				
Static	at Time Sam	pled	Table	0.11										
mments:		T. I.	I Otal	Gallons Purg	ged		S	Sample 1	ime					

Date of Report: 04/03/2008

Anju Farfan

TRC 21 Technology Drive Irvine, CA 92618

RE: 0018

BC Work Order: 0803981

Enclosed are the results of analyses for samples received by the laboratory on 03/26/2008 20:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

**Authorized Signature** 



TRC

21 Technology Drive Irvine, CA 92618

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

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

Laboratory	Client Sample Informat	ion			
0803981-01	COC Number:		Receive Date:	03/26/2008 20:40	Delivery Work Order:
	Project Number:	0018	Sampling Date:	03/26/2008 11:13	Global ID: T0600102231
	Sampling Location:	MW-2	Sample Depth:		Matrix: W
	Sampling Point:	MW-2	Sample Matrix:	Water	Samle QC Type (SACode): CS
	Sampled By:	TRCI	·		Cooler ID:
0803981-02	COC Number:		Receive Date:	03/26/2008 20:40	Delivery Work Order:
	Project Number:	0018	Sampling Date:	03/26/2008 11:37	Global ID: T0600102231
	Sampling Location:	MW-1	Sample Depth:		Matrix: W
	Sampling Point:	MW-1	Sample Matrix:	Water	Samle QC Type (SACode): CS
	Sampled By:	TRCI	·		Cooler ID:
0803981-03	COC Number:		Receive Date:	03/26/2008 20:40	Delivery Work Order:
	Project Number:	0018	Sampling Date:	03/26/2008 11:56	Global ID: T0600102231
	Sampling Location:	MW-3	Sample Depth:		Matrix: W
	Sampling Point:	MW-3	Sample Matrix:	Water	Samle QC Type (SACode): CS
	Sampled By:	TRCI	-		Cooler ID:



Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

# Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0803981-01	Client Sam	ole Name	e: 0018, MW-2, MW	-2, 3/26/200	8 11:13:0	0AM						
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	TOTAL STREET,
Toluene	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	
Total Xylenes	ND	ug/L	1.0	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	TO SALVE
Ethanol	ND	ug/L	250	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783	ND	
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783		
Toluene-d8 (Surrogate)	93.0	%	88 - 110 (LCL - UCL)	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783		
4-Bromofluorobenzene (Surrogate)	98.2	%	86 - 115 (LCL - UCL)	EPA-8260	03/28/08	04/02/08 07:30	SDU	MS-V10	1	BRC1783		

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

# Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 08	03981-02	Client Sam	ole Name	: 0018, MW-1,	MW-1,	, 3/26/2008	3 11:37:0	0AM						
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL M	DL	<u>Method</u>	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
1,2-Dibromoethane		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
1,2-Dichloroethane		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	**************************************
Ethylbenzene		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
Methyl t-butyl ether		18	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
Toluene		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
Total Xylenes		ND	ug/L	1.0		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
t-Amyl Methyl ether		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
t-Butyl alcohol		ND	ug/L	10		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
Diisopropyl ether		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	Andreas
Ethanol		ND	ug/L	250		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
Ethyl t-butyl ether		ND	ug/L	0.50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
Total Purgeable Petroleun Hydrocarbons	1	230	ug/L	50		EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	ND	
1,2-Dichloroethane-d4 (Su	rrogate)	99.4	%	76 - 114 (LCL - L	JCL)	EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783		
Toluene-d8 (Surrogate)		93.1	%	88 - 110 (LCL - L	JCL)	EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783	All a di Wash off Latitus hand on bilance .	
4-Bromofluorobenzene (S	urrogate)	107	%	86 - 115 (LCL - L	JCL)	EPA-8260	03/28/08	04/02/08 10:14	SDU	MS-V10	1	BRC1783		



Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

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

3981-03	Client Samp	ole Name:	: 0018, MW-3, MW-	3, 3/26/200	8 11:56:0	MAO						
					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	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
	ND	ug/L	0.50	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
	ND	ug/L	1.0	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
	ND	ug/L	250	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
	ND	ug/L	50	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783	ND	
ogate)	100	%	76 - 114 (LCL - UCL)	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783		
	95.2	%	88 - 110 (LCL - UCL)	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783		PROPERTY AND
ogate)	101	%	86 - 115 (LCL - UCL)	EPA-8260	03/28/08	04/02/08 10:32	SDU	MS-V10	1	BRC1783		THE PERSON OF THE PERSON NAMED IN COLUMN TWO AREAS.
	ogate)	Result ND ND ND ND ND ND ND ND Ogate) 100 95.2	Result         Units           ND         ug/L           ogate)         100         %           95.2         %	Result         Units         PQL         MDL           ND         ug/L         0.50           ND         ug/L         0.50           ND         ug/L         0.50           ND         ug/L         1.0           ND         ug/L         250           ND         ug/L         50           ogate)         100         %         76 - 114 (LCL - UCL)           95.2         %         88 - 110 (LCL - UCL)	Result         Units         PQL         MDL         Method           ND         ug/L         0.50         EPA-8260           ND         ug/L         0.50         EPA-8260           ND         ug/L         0.50         EPA-8260           ND         ug/L         1.0         EPA-8260           ND         ug/L         250         EPA-8260           ND         ug/L         50         EPA-8260           ogate)         100         %         76 - 114         (LCL - UCL)         EPA-8260           95.2         %         88 - 110         (LCL - UCL)         EPA-8260	Result         Units         PQL         MDL         Method         Date           ND         ug/L         0.50         EPA-8260         03/28/08           ND         ug/L         1.0         EPA-8260         03/28/08           ND         ug/L         250         EPA-8260         03/28/08           ND         ug/L         50         EPA-8260         03/28/08           Ogate)         100         %         76 - 114         (LCL - UCL)         EPA-8260         03/28/08           Ogate)         95.2         %         88 - 110         (LCL - UCL)         EPA-8260         03/28/08	Result         Units         PQL         MDL         Method         Date Date Date/Time Date Date/Time           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32           ND         ug/L         1.0         EPA-8260         03/28/08         04/02/08         10:32           ND         ug/L         250         EPA-8260         03/28/08         04/02/08         10:32           ND         ug/L         50         EPA-8260         03/28/08         04/02/08         10:32           Ogate)         100         %         76 - 114         (LCL - UCL)         EPA-8260         03/28/08         04/02/08         10:32           Ogate)         100         %         76 - 114         (LCL - UCL)         EPA-8260         03/28/08         04/02/08         10:32	Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU           ND         ug/L         1.0         EPA-8260         03/28/08         04/02/08         10:32         SDU           ND         ug/L         250         EPA-8260         03/28/08         04/02/08         10:32         SDU           ND         ug/L         50         EPA-8260         03/28/08         04/02/08         10:32         SDU <td>Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst         Instrument ID           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         1.0         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         250         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         50         EPA-8260         03/28/08         04/02/08         10:32         SDU         M</td> <td>  Result   Units   PQL   MDL   Method   Date   Date/Time   Analyst   ment ID   Dilution    </td> <td>  Result   Units   PQL   MDL   Method   Date   Date/Time   Analyst   ment ID   Dilution   Batch ID    </td> <td>  Result   Units   PQL   MDL   Method   Date   Date/Time   Analyst   ment ID   Dilution   Batch ID   Bias    </td>	Result         Units         PQL         MDL         Method         Date         Date/Time         Analyst         Instrument ID           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         0.50         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         1.0         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         250         EPA-8260         03/28/08         04/02/08         10:32         SDU         MS-V10           ND         ug/L         50         EPA-8260         03/28/08         04/02/08         10:32         SDU         M	Result   Units   PQL   MDL   Method   Date   Date/Time   Analyst   ment ID   Dilution	Result   Units   PQL   MDL   Method   Date   Date/Time   Analyst   ment ID   Dilution   Batch ID	Result   Units   PQL   MDL   Method   Date   Date/Time   Analyst   ment ID   Dilution   Batch ID   Bias



Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

## **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	BRC1783	Matrix Spike	0802904-68	0	26.550	25.000	ug/L		106		70 - 130
		Matrix Spike Duplicat	e 0802904-68	0	25.010	25.000	ug/L	5.8	100	20	70 - 130
Toluene	BRC1783	Matrix Spike	0802904-68	0	28.500	25.000	ug/L		114		70 - 130
		Matrix Spike Duplicat	e 0802904-68	0	25.560	25.000	ug/L	11.1	102	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRC1783	Matrix Spike	0802904-68	ND	9.9100	10.000	ug/L		99.1		76 - 114
		Matrix Spike Duplicat	e 0802904-68	ND	9.9600	10.000	ug/L		99.6		76 - 114
Toluene-d8 (Surrogate)	BRC1783	Matrix Spike	0802904-68	ND	10.100	10.000	ug/L		101		88 - 110
		Matrix Spike Duplicat	e 0802904-68	ND	9.9100	10.000	ug/L		99.1		88 - 110
4-Bromofluorobenzene (Surrogate)	BRC1783	Matrix Spike	0802904-68	ND	9.8200	10.000	ug/L		98.2		86 - 115
, ,		Matrix Spike Duplicat	e 0802904-68	ND	9.9300	10.000	ug/L		99.3		86 - 115



TRC

21 Technology Drive Irvine, CA 92618 Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

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

#### **Quality Control Report - Laboratory Control Sample**

									Control	Control Limits Percent Recovery RPD Lab Quals 70 - 130 70 - 130					
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery		RPD	Lab Quals				
Benzene	BRC1783	BRC1783-BS1	LCS	25.820	25.000	0.50	ug/L	103	70 - 130						
Toluene	BRC1783	BRC1783-BS1	LCS	26.680	25.000	0.50	ug/L	107	70 - 130						
1,2-Dichloroethane-d4 (Surrogate)	BRC1783	BRC1783-BS1	LCS	10.140	10.000		ug/L	101	76 - 114						
Toluene-d8 (Surrogate)	BRC1783	BRC1783-BS1	LCS	9.8400	10.000		ug/L	98.4	88 - 110						
4-Bromofluorobenzene (Surrogate)	BRC1783	BRC1783-BS1	LCS	9.8600	10.000		ug/L	98.6	86 - 115						

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

## 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	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
Ethylbenzene	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
Toluene	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
Total Xylenes	BRC1783	BRC1783-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		den en e
t-Butyl alcohol	BRC1783	BRC1783-BLK1	ND	ug/L	10	PROPERTY PROPERTY STATE OF THE PROPERTY OF THE	ATT ATT TO THE TOTAL PROPERTY OF THE PROPERTY
Diisopropyl ether	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
Ethanol	BRC1783	BRC1783-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BRC1783	BRC1783-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BRC1783	BRC1783-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BRC1783	BRC1783-BLK1	103	%	76 - 114 (LCI	UCL)	
Toluene-d8 (Surrogate)	BRC1783	BRC1783-BLK1	97.1	%	88 - 110 (LCI	UCL)	
4-Bromofluorobenzene (Surrogate)	BRC1783	BRC1783-BLK1	102	%	86 - 115 (LCI	UCL)	



TRC

21 Technology Drive Irvine, CA 92618 Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 04/04/2008 9:53

#### **Notes And Definitions**

MDL

Method Detection Limit

ND

Analyte Not Detected at or above the reporting limit

PQL

**Practical Quantitation Limit** 

RPD

Relative Percent Difference

									<u> </u>	
BC LABORATORIES INC.		SAM	PLE RECE	IPT FOR	M	Rev. No. 1	0 01/21/	04 Pa	nge C	Of
Submission #: 680398(	P	roject Co	de:			TB E	Batch #			
SHIPPING INFOR	MATION					SHIPPI	NG CONT	AINER		
	Hand Del	•			Ice Chest		None			
BC Lab Field Service 🛈 Other 🛭	☐ (Specify	()			Вох		Othe	r 🗌 (Spe	cify)	
							*			
Refrigerant: Ice 🖳 Blue Ice 🛭	] Nor	ne 🛘	Other 🗌	Comn	nents:					
Custody Seals: Ice Chest □	Containe	ers 🗆 📗	None [	Comm	ents:					
	Intact? Yes			. /						
All samples received? Yes ☐ No ☐	All sample	s container	s intact? Y	es 🗓 No	0	Descript	tion(s) match			
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PT CYANIDE		<b></b>								1
PT NITROGEN FORMS									•	
PT TOTAL SULFIDE							-			
20Z. NITRATE / NITRITE										
100ml TOTAL ORGANIC CARBON										
QT TOX PT CHEMICAL OXYGEN DEMAND										
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BACTERIOLOGICAL										
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Comments: \_\_\_\_\_\_Sample Numbering Completed By: \_\_\_\_\_

300

\_\_\_\_ Date/Time: 3/20 3245

### BC LABORATORIES, INC.

(661) 327-4911 FAX (661) 327-1918

4100 Atlas Court Bakersfield, CA 93308

CHAIN OF CUSTODY 0803981

						Anal	ysis	Re	que	este	ed		
	noco Phillips/ TRC 6201 (larement A	Consultant Firm: TRe  21 Technology Drive Irvine, CA 92618-230 Attn: Anju Farfan	· · · · · · · · · · · · · · · · · · ·	MATRIX (GW) Ground- water (S)	Gas by 8015		ates	8260B			VA)	808	ested
City: Oq	Kland	Workorder # 0/0		Soil (WW) Waste- water	BTEX/MTBE by 8021B,	TPH GAS by 8015M	8260 full list w/ oxygenates	ВУ	8260B	C/MS	by 8260	by 824	Turnaround Time Requested
State: CA Conoco Ph	zip: nillips Mgr: Bill Bor	Project #: 1547 The Sampler Name: And	171 drew Vidners	(SL) Sludge	/MTBE	TPH GAS by 8015M	full list	BTEX/MTBE/OXYS	ETHANOL by	TPH -G by GC/MS	EDB	MIDE	Iround 1
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#### **STATEMENTS**

#### **Purge Water Disposal**

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

#### Limitations

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