

Sacramento, California 95818

RECEIVED

3:02 pm, Feb 05, 2009

Alameda County Environmental Health

January 30, 2009

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

Re:

Quarterly Summary Reports—Second and Third 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

January 27, 2009

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



RE: Quarterly Summary Report – Second and Third 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 Second and Third 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 (μ g/L) of TPH-G and 54 μ 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.

January 2006 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 September 19, 2008, reported depth to groundwater ranged from 21.11 feet (MW-1) to 22.62 feet (MW-2) below top of casing (TOC), with 2.07 feet average decrease in groundwater elevation across the site. During the second quarter 2008 monitoring event groundwater depth ranged from 18.82 feet (MW-1) to 21.13 feet (MW-2) below TOC, with 2.53 feet average decrease in groundwater elevation across the site. Groundwater elevation beneath the site typically fluctuates by approximately 5 feet annually.

The groundwater flow direction during the third quarter 2008 was reported southwest at a gradient of 0.01 feet per feet (ft/ft). This is mainly consistent with a gradient of 0.01 ft/ft southeast during the previous sampling event (June 20, 2008). Reported historical groundwater flow direction has been primarily to the southwest.

During the second and third 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, ethyl-benzene 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 disopropyl ether (DIPE)), 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB) by EPA Method 8260.

During both the second and third quarter 2008, TPH-G was reported in only one well (MW-1) at concentrations of 100 ug/L and 63 μ g/L, respectively. With the exception of first quarter 2005, the TPH-G concentration in well MW-1 has historically been below 1,000 μ g/L. TPH-G has never been detected in wells MW-2 and MW-3.

Benzene was not detected in any of the three wells during the second and third quarter 2008 sampling events. Benzene has not been detected in any site well since at least 2005.

During the second and third quarter 2008, MTBE was reported in only one of the three wells sampled (MW-1), with concentrations of 13 ug/l and 12 μ g/l, respectively. The MTBE concentration in well MW-1 has been below 20 μ g/L for the past ten 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).

CONCLUSIONS AND RECOMMENDATIONS

The third quarter 2008 analytical data indicates that the petroleum hydrocarbon and oxygenate concentrations observed beneath the southern portion of the site (MW-1) during the second quarter 2008 have remained mostly stable into the third quarter 2008. 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, and MTBE by EPA Method 8260B.

THIS QUARTER'S ACTIVITIES (Second and Third Quarter 2008)

- TRC performed the Second and Third Quarter2008 quarterly monitoring and sampling events, and prepared quarterly monitoring reports.
- Delta prepared and submitted a Site Conceptual Model Report, dated September 12, 2008 to the ACEH.

NEXT QUARTER'S ACTIVITIES (Fourth Quarter 2008)

• TRC to conduct the Fourth 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:

July 14, 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

APRIL THROUGH JUNE 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: Ms. Caitlin Morgan, Delta Consultants (4 copies)

Enclosures 20-0400/0018R19 QMS

QUARTERLY MONITORING REPORT APRIL THROUGH JUNE 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: 7/14/14



No. PG3531

· Att

	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 – 06/20/08 Groundwater Sampling Field Notes – 06/20/08
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

Summary of Gauging and Sampling Activities April 2008 through June 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: Christina Carrillo
Date(s) of Gauging/Sampling Event: 06/20/08	
Sample Points	
Groundwater wells: 3 onsite, 0 offsite Purging method: Bailer/submersible pump Purge water disposal: Veolia/Rodeo Unit 100 Other Sample Points: 0 Type: n/a	Points gauged: 3 Points sampled: 3
Liquid Phase Hydrocarbons (LPH)	
Sample Points with LPH: 0 Maximum thickness (for LPH removal frequency: n/a Treatment or disposal of water/LPH: n/a	eet): n/a Method: n/a
Hydrogeologic Parameters	
Depth to groundwater (below TOC): Minimum: 18 Average groundwater elevation (relative to available to availab	ocal datum): 189.47 feet ous event: -2.53 feet
Selected Laboratory Results	
Sample Points with detected Benzene: 0 Sam Maximum reported benzene concentration: n/a	nple Points above MCL (1.0 μg/l): n/a
· · · · · · · · · · · · · · · · · · ·	iximum: 100 μg/l (MW-1) iximum: 13 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

EIBE = ethyl tertiary butyl ether

MTBE = methyl tertiary butyl ether

PCB = polychlorinated biphenyls

PCE = terrachloroethene

IBA = terriary butyl alcohol

ICA = trichloroethane
ICE = trichloroethene

IPH-G = total petroleum hydrocarbons with gasoline distinction

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

IPH-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.
- 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.
- 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

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

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
June 20, 2008
76 Station 0018

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- Cl water E Elevation	_		TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260 B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-1 6/20/200	08 208.15	•	nterval in fe 0.00	e et: 10.0-30. 0)) -1.95		100	ND<0.50	ND<0.50	ND<0.50	ND<1.0		13	
MW-2 6/20/200	98 210.27	`	nterval in fe 0.00	e et: 10.0-30. 0	9) -3.34		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-3 6/20/200	08 208.98	•	nterval in fe 0.00	e et: 10.0-30. 0 189.93)) -2.31		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	ЕТВЕ	TAME	
	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-1 6/20/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
MW-2 6/20/2008		ND<250						
MW-3 6/20/2008		ND<250					57	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through June 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	Ethyi- 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 Inte	erval in fee	t: 10.0-30.0	0)									
8/24/20	00 208.1	5 18.55	0.00	189.60		120		0.67	ND	0.86	1.4	54	54	
11/16/20	000 208.1	5 20.30	0.00	187.85	-1.75	169		ND	1.20	1.74	0.629	68.6	97.7	
2/9/200	208.1	5 20.16	0.00	187.99	0.14	330		1.3	ND	1.0	4.6	140	150	
5/11/20	01 208.1	5 17.68	0.00	190.47	2.48	1250		ND	ND	ND	ND	145	122	
8/10/20	01 208.1	5 20.38	0.00	187.77	-2.70	580		ND<0.50	ND<0.50	ND<0.50	ND<0.50	110	150	
11/7/20	01 208.1	5 22.68	0.00	185.47	-2.30	250		ND<0.50	1.5	ND<0.50	ND<0.50	120	100	
2/6/200	208.1	5 16.20	0.00	191.95	6.48	790		ND<2.5	12	8.8	ND<2.5	90	72	
5/8/200	208.1	5 17.54	0.00	190.61	-1.34	890		ND<2.5	ND<2.5	ND<2.5	ND<2.5	78	81	
8/9/200	208.1	5 20.21	0.00	187.94	-2.67		450	ND<0.50	ND<0.50	ND<0.50	ND<1.0		100	
11/29/20	002 208.1	5 22.33	0.00	185.82	-2.12		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		72	
2/3/200	03 208.1	5 16.41	0.00	191.74	5.92		540	ND<0.50	ND<0.50	ND<0.50	ND<1.0		40	
5/5/200	03 208.1	5 16.09	0.00	192.06	0.32		670	ND<2.5	ND<2.5	ND<2.5	ND<5.0		57	
9/4/200	03 208.1	5 21.46	0.00	186.69	-5.37									No analysis; past holding time
11/13/20	003 208.1	5 21.52	0.00	186.63	-0.06		97	ND<0.50	5.0	0.82	3.5		29	
1/29/20	04 208.1	5 17.51	0.00	190.64	4.01		520	ND<0.50	ND<0.50	ND<0.50	ND<1.0		44	
5/7/200	04 208.1	5 16.74	0.00	191.41	0.77		180	ND<0.50	ND<0.50	ND<0.50	ND<1.0		25	
8/27/20	04 208.1	5 19.40	0.00	188.75	-2.66		100	ND<0.50	ND<0.50	ND<0.50	ND<1.0		21	
11/23/20	004 208.1	.5 19.82	0.00	188.33	-0.42		410	ND<0.50	ND<0.50	ND<0.50	ND<1.0		45	
2/9/200	05 208.1	5 15.81	0.00	192.34	4.01		5700	ND<0.50	ND<0.50	ND<0.50	ND<1.0		40	
6/16/20	05 208.1	.5 15.85	0.00	192.30	-0.04		200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		24	
9/27/20	05 208.1	5 19.15	0.00	189.00	-3.30	an va	300	ND<0.50	ND<0.50	ND<0.50	ND<1.0		19	
12/30/20	005 208.1	5 14.62	0.00	193.53	4.53		68	ND<0.50	ND<0.50	ND<0.50	ND<1.0		12	
3/8/200	06 208.1	.5 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 June 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
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	
MW-1	continued													
6/8/200	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	
9/15/200	06 208.15	17.49	0.00	190.66	-3.21		96	ND<0.50	ND<0.50	ND<0.50	ND<0.50		6.1	
12/22/20	06 208.15	18.68	0.00	189.47	-1.19		570	ND<0.50	ND<0.50	ND<0.50	ND<0.50		18	
3/28/200	07 208.15	18.40	0.00	189.75	0.28		190	ND<0.50	ND<0.50	ND<0.50	ND<0.50		18	
6/25/200	07 208.15	20.01	0.00	188.14	-1.61		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		4.2	
9/22/200	07 208.15	21.23	0.00	186.92	-1.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		14	
12/14/20	07 208.15	21.02	0.00	187.13	0.21		76	ND<0.50	ND<0.50	ND<0.50	ND<1.0		16	
3/26/200	08 208.15	16.87	0.00	191.28	4.15		230	ND<0.50	ND<0.50	ND<0.50	ND<1.0		18	
6/20/200	08 208.15	18.82	0.00	189.33	-1.95		100	ND<0.50	ND<0.50	ND<0.50	ND<1.0		13	
MW-2	(\$	Screen Inte	erval in feet	t: 10.0-30.0)									
8/24/200	00 210.27	19.69	0.00	190.58		ND		ND	ND	ND	ND	ND	ND	
11/16/20	00 210.27	21.61	0.00	188.66	-1.92	ND		ND	ND	ND	ND	ND	ND	
2/9/200	1 210.27	21.52	0.00	188.75	0.09	ND		ND	ND	ND	ND	ND	ND	
5/11/200	01 210.27	18.76	0.00	191.51	2.76	ND		ND	ND	ND	ND	ND	ND	
8/10/200	210.27	21.65	0.00	188.62	-2.89	ND<50	w-m	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
11/7/200	01 210.27	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	
2/6/200	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		
5/8/200	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		
8/9/200	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	
11/29/20	02 210.27	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	
2/3/200	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	
5/5/200	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	
9/4/200	3 210.27	22.75	0.00	187.52	-5.60							NF AA		No analysis; past holding time
11/13/20	03 210.27	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	
0018								Page :	2 of 5					

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

Date Sampled I	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-2	continued													
1/29/200	4 210.27	18.73	0.00	191.54	4.29		ND<50	0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
5/7/2004	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	
8/27/200	4 210.27	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	
11/23/200	04 210.27	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	
2/9/2005		16.72	0.00	193.55	4.48		ND<50	0.69	1.5	ND<0.50	1.4		ND<0.50	
6/16/200	5 210.27	16.73		193.54	-0.01	m re	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
9/27/200	5 210.27	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	
12/30/200	05 210.27	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	
3/8/2006	5 210.27	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	
6/8/2006	5 210.27	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	
9/15/200	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	
12/22/200	06 210.27	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	
3/28/200	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	
6/25/200	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	
9/22/200	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	77	ND<0.50	
12/14/200	07 210.27	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	
3/26/200	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	
6/20/200	8 210.27	21.13	0.00	189.14	-3.34		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-3	(S	Screen Inte	erval in fee	t: 10.0-30.0))									
8/24/200	0 208.98	18.68	0.00	190.30		ND		ND	ND	ND	ND	4.7	2.3	
11/16/200	00 208.98	20.56	0.00	188.42	-1.88	ND		ND	ND	ND	ND	ND	ND	
2/9/2001	208.98	20.45	0.00	188.53	0.11	ND		ND	ND	ND	ND	ND	ND	
5/11/200	1 208.98	17.75	0.00	191.23	2.70	ND		ND	ND	ND	ND	ND	ND	
8/10/200	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	
0018								Page :	3 of 5					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through June 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)	$(\mu g/l)$	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	
MW-3	continued													
11/7/20	01 208.98	3 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	
2/6/200	208.98	3 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		
5/8/200	208.98	3 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		
8/9/200	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	
11/29/20	002 208.98	3 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	
2/3/200	3 208.98	3 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	
5/5/200	3 208.98	16.16	0.00	192.82	0.30		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.6	
9/4/200	3 208.98	3 21.71	0.00	187.27	-5.55									No analysis; past holding time
11/13/20	003 208.98	3 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	
1/29/20	04 208.98	3 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	
5/7/200	04 208.98	3 16.79	0.00	192.19	1.00		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.55	
8/27/20	04 208.98	3 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	
11/23/20	004 208.98	3 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	
2/9/200)5 208.98	3 15.72	0.00	193.26	4.58		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.6	
6/16/20	05 208.98	3 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	
9/30/20	05 208.98	3 19.47	0.00	189.51	-3.80	1.1	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	9/27/05 samples broke during shipment.
12/30/20	005 208.98	3 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	
3/8/200	06 208.98	3 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	
6/8/200	06 208.98	3 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	
9/15/20	06 208.98	3 17.67	0.00	191.31	-3.85		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		3.4	
12/22/20	006 208.98	3 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	
3/28/20	07 208.98	3 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	
6/25/20	07 208.98	3 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	
								Daga	1 of 5					

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
August 2000 Through June 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)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	
MW-3	continued	ĺ												
9/22/20	07 208.98	3 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	
12/14/20	007 208.98	3 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	
3/26/20	08 208.98	3 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	
6/20/20	08 208.98	3 19.05	0.00	189.93	-2.31		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)	i,2-DCA (EDC)	DIPE	ETBE	TAME
	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1							
8/24/2000	ND	ND .			ND	ND	ND
11/16/2000	ND	ND			ND	ND	ND
2/9/2001	ND	ND	ND	ND	ND	ND	ND
5/11/2001	ND	ND	ND	ND	ND	ND	ND
8/10/2001	ND<100	ND<1000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/7/2001	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
2/6/2002	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
5/8/2002	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
8/9/2002	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/29/2002	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
2/3/2003	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
5/5/2003	ND<500	ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10
11/13/2003	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1/29/2004	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
5/7/2004	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
8/27/2004	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
11/23/2004	7.5	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
2/9/2005	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
6/16/2005	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
9/27/2005	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/30/2005	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/8/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
6/8/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
9/15/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/22/2006	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/28/2007	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	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 co							
6/25/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
9/22/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/14/2007	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/26/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
6/20/2008	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-2							
8/24/2000	ND	ND			ND	ND	ND
11/16/2000	ND	ND			ND	ND	ND
2/9/2001	ND	ND	ND	ND	ND	ND	ND
5/11/2001	ND	ND	ND	ND	ND	ND	ND
8/10/2001		ND<1000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/7/2001		ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
11/13/2003		ND<500					
1/29/2004		ND<500					
5/7/2004		ND<50					
8/27/2004		ND<50	55				
11/23/2004		ND<50					
2/9/2005	 	ND<50					
6/16/2005		ND<50					
9/27/2005		ND<250					
12/30/2005		ND<250	 				
3/8/2006		ND<250					
6/8/2006		ND<250					
9/15/2006		ND<250					
12/22/2006		ND<250					
3/28/2007				~~	7.7	~~	
3/28/2007		ND<250					

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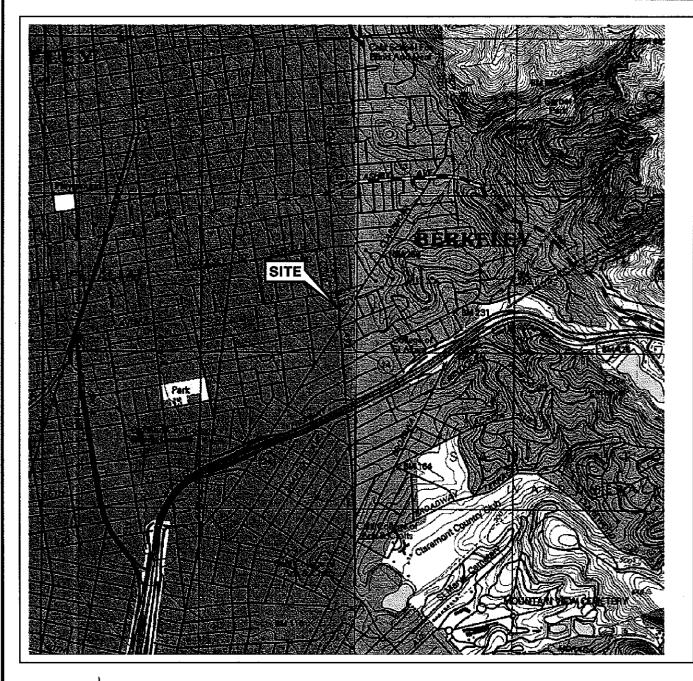
Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ЕТВЕ	TAME
	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	$(\mu g/l)$	(µg/l)
MW-2 c	ontinued						
6/25/2007		ND<250	~-				
9/22/2007		ND<250					
12/14/2007		ND<250					
3/26/2008		ND<250					
6/20/2008		ND<250					
MW-3							
8/24/2000	ND	ND			ND	ND	ND
11/16/2000	ND	ND			ND	ND	ND
2/9/2001	ND	ND	ND	ND	ND	ND	ND
5/11/2001	ND	ND	ND	ND	ND	ND	ND
8/10/2001	ND<100	ND<1000000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/7/2001	ND<20	ND<500000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
8/9/2002			ND	ND			
11/29/2002			ND	ND			
2/3/2003			ND<2.0	ND<2.0			
5/5/2003			ND<1.0	ND<1.0			
11/13/2003		ND<500					
1/29/2004		ND<500					
5/7/2004		ND<50					
8/27/2004		ND<50					
11/23/2004	***	ND<50					
2/9/2005		ND<50					
6/16/2005		ND<50					
9/30/2005		ND<250					
12/30/2005		ND<250					
3/8/2006		ND<250					

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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	i,2-DCA (EDC)	DIPE	ETBE	TAME			
	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)			
MW-3	continued									
6/8/2006		ND<250								
9/15/2006		ND<250				22 ,				
12/22/200	6	ND<250								
3/28/2007		ND<250	P-M							
6/25/2007	1	ND<250								
9/22/2007	1	ND<250	B1-64	Maria	P-14		m m			
12/14/200	7	ND<250								
3/26/2008	}	ND<250					**			
6/20/2008	3	ND<250								





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

SCALE 1:24,000



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

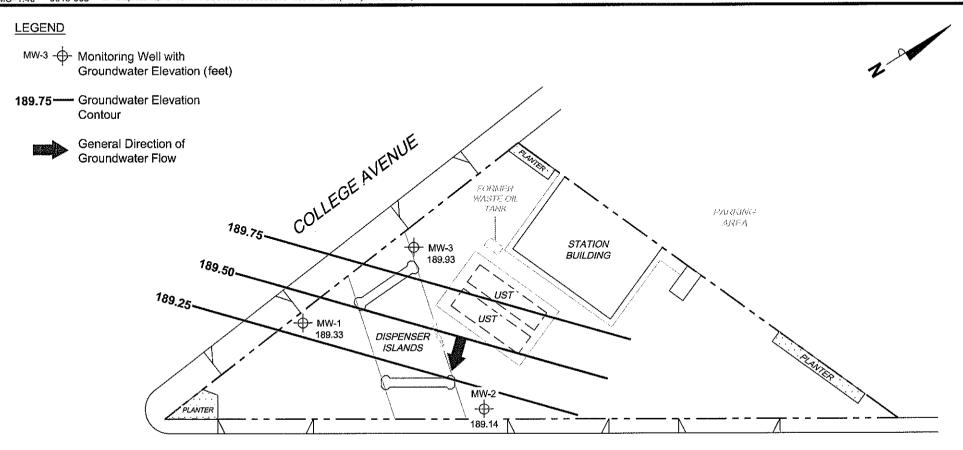




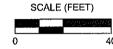
PROJECT: 154771

FACILITY:

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



CLAREMONT AVENUE





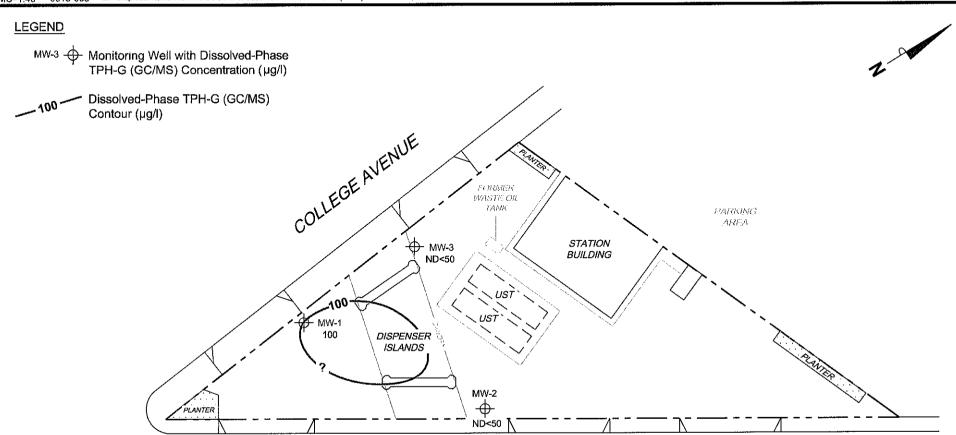
Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank.



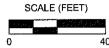
PROJECT: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA GROUNDWATER ELEVATION CONTOUR MAP June 20, 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.

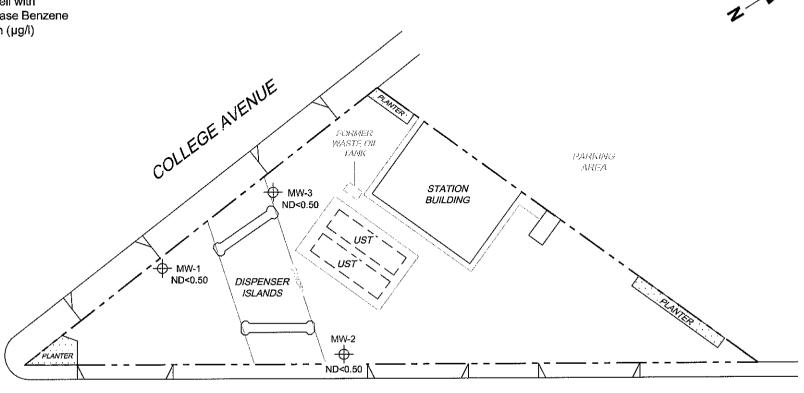


PROJECT: 154771

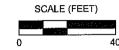
FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE TPH-G (GC/MS)
CONCENTRATION MAP
June 20, 2008

LEGEND



CLAREMONT AVENUE





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



PROJECT: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE BENZENE CONCENTRATION MAP June 20, 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 = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.



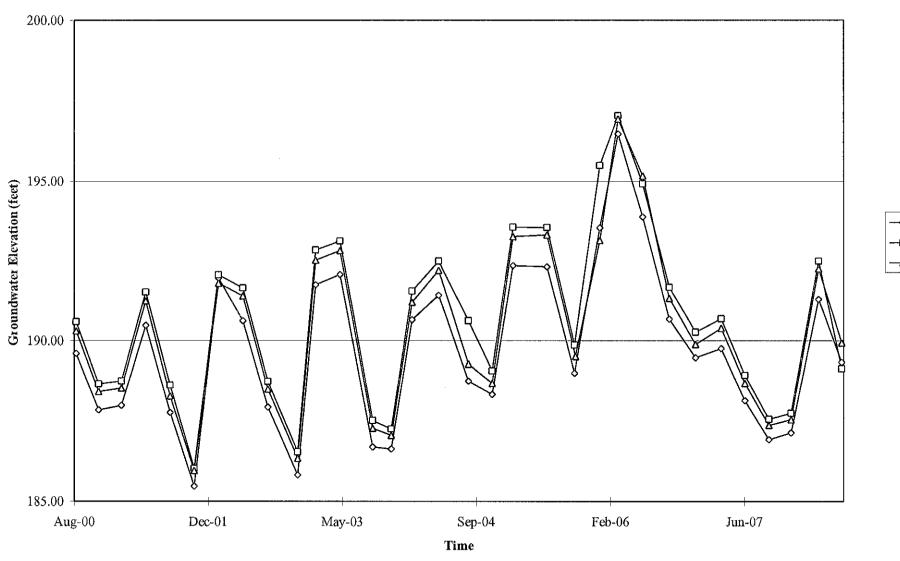
PROJECT: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE MTBE CONCENTRATION MAP June 20, 2008

GRAPHS

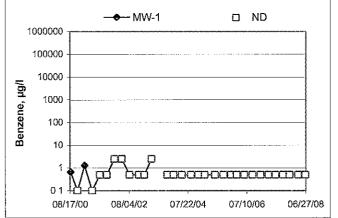
Groundwater Elevations vs. Time 76 Station 0018

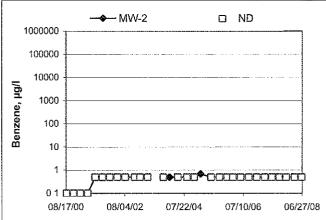


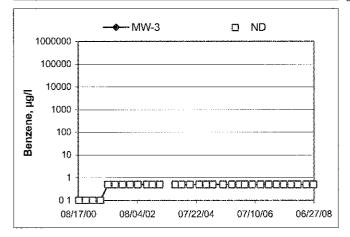
Elevations may have been corrected for apparent changes due to resurvey

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 ISR. 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: RickYH	Job #/Task #: 154771/FA20	Date: 6/20/08
Site # <u>0018</u>	Project Manager A. Collins	Page _ i _ of

		Time	Total	Depth to	Depth to	Product Thickness	Time	
Well#	тос	Gauged		Water	Product	(feet)	Sampled	Misc. Well Notes
mω-1	V,		29.75			-	0622	211
mw-Z		0508	29.55	21.13			0614	Z'\
mw-3	V	0512	2992	17.05			0558	211
							···	
							-	
	· ·							
				- <u></u>				
FIFI D DATA	FIELD DATA COMPLETE X QA/QC X COC X WELL BOX CONDITION SHEETS X							
I ILLU DATA	FIELD DATA COMPLETE 🔪 QA/QC 🔪 COC 🔀 WELL BOX CONDITION SHEETS 💟							
MANIFEST		DRUM IN	VENTORY		TRAFFIC C	CONTROL		



GROUNDWATER SAMPLING FIELD NOTES

Technician: RickY

Site:	00	18

Project No : 154771

Date: 6/20/08

Well No. mw-1	Purge Method: Sub
Depth to Water (feet): 15.50	Depth to Product (feet):
Total Depth (feet) 29.75	LPH & Water Recovered (gallons):
Water Column (feet): 10.95	Casing Diameter (Inches): フパ
80% Recharge Depth(feet): 20.99	1 Well Volume (gallons):

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D O (mg/L)	ORP	Turbidity
0531			て	6832	20.0	740			
			4	688-8	20.0	6-63			
	०५३८		6	678.8	19.9	6.11			
									
Stat	ic at Time Sa	mpled	Tota	al Gallons Pur	ged		Sample	Time	
19.03				5500					
Comments	i:				,				

Well No. mw-Z	Purge Method:
Depth to Water (feet): 21.13 Total Depth (feet) 29.55	Depth to Product (feet):
Water Column (feet): 8.42	LPH & Water Recovered (gallons): Casing Diameter (Inches): 2"
80% Recharge Depth(feet): 22・81	1 Well Volume (gallons):

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рH	D.O. (mg/L)	ORP	Turbidity
0604			1	496.0	17.9	6.17			
			2	494.6	18.1	5.94			
	0610		3	494.4	18.1	585			
Stat	ic at Time S	ampled	Tota	al Gallons Pu	rged		Sample	Time	
21.13		3			0614				
Comments	5:								



GROUNDWATER SAMPLING FIELD NOTES

Technician: Project No.: 154771

Site: OOIS Project No :_	154771	Date: 6/20/08
Well No. mw-3	Purge Method:	
Depth to Water (feet): 19.05	Depth to Product (feet):	
Total Depth (feet) 29.95	LPH & Water Recovered (gallons):	
Water Column (feet): 10 87	Casing Diameter (Inches):	
80% Recharge Depth(feet): 21-22	1 Well Volume (gallons):	

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D O (mg/L)	ORP	Turbidity
0544			2	501.3	18.7	588		·	
			4	506.5	18.7	5.82			
	0549		6	514.2	18.7	5.79			
Stat	ic at Time Sa	ampled	Total Gallons Purged			Sample Time			
20.45			6	0558					
Comments):								
					,				

Well No	Purge Method:
Depth to Water (feet):	Depth to Product (feet):
Total Depth (feet)	LPH & Water Recovered (gallons):
Water Column (feet):	Casing Diameter (Inches):
80% Recharge Depth(feet):	1 Well Volume (gallons):

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	pН	D O (mg/L)	ORP	Turbidity
									
Static at Time Sampled			Total Gallons Purged			Sample Time			



Date of Report: 06/24/2008

Anju Farfan

TRC 21 Technology Drive Irvine, CA 92618

RE: 0018

BC Work Order: 0808077

Enclosed are the results of analyses for samples received by the laboratory on 6/20/2008. 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: 06/24/2008 16:12

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Informat	ion			
0808077-01	COC Number:		Receive Date:	06/20/2008 20:10	Delivery Work Order:
	Project Number:	0018	Sampling Date:	06/20/2008 06:22	Global ID: T0600102231
	Sampling Location:	MW-1	Sample Depth:		Matrix: W
	Sampling Point:	MW-1	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	·		Cooler ID:
0808077-02	COC Number:		Receive Date:	06/20/2008 20:10	Delivery Work Order:
	Project Number:	0018	Sampling Date:	06/20/2008 06:14	Global ID: T0600102231
	Sampling Location:	MW-2	Sample Depth:		Matrix: W
	Sampling Point:	MW-2	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	·		Cooler ID:
0808077-03	COC Number:		Receive Date:	06/20/2008 20:10	Delivery Work Order:
	Project Number:	0018	Sampling Date:	06/20/2008 05:58	Global ID: T0600102231
	Sampling Location:	MW-3	Sample Depth:		Matrix: W
	Sampling Point:	MW-3	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	•		Cooler ID:

TRC 21 Technology Drive

Irvine, CA 92618

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 06/24/2008 16:12

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 08080	77-01	Client Sam	ole Name	: 0018, MW-1, N	/W-1, 6/20	/2008	6:22:00	AM	****	***************************************				
_							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MI	DL Meti	ıod	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
1,2-Dibromoethane		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
1,2-Dichloroethane		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Ethylbenzene		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Methyl t-butyl ether		13	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Toluene		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Total Xylenes		ND	ug/L	1.0	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	The second secon
t-Butyl alcohol		ND	ug/L	10	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Diisopropyl ether		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Ethanol		ND	ug/L	250	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	A
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
Total Purgeable Petroleum Hydrocarbons		100	ug/L	50	EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203	ND	
1,2-Dichloroethane-d4 (Surroga	ate)	108	%	76 - 114 (LCL - U	CL) EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203		
Toluene-d8 (Surrogate)		102	%	88 - 110 (LCL - U	CL) EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203		
4-Bromofluorobenzene (Surrog	ate)	100	%	86 - 115 (LCL - U	CL) EPA-	3260 06	6/20/08	06/24/08 03:53	SDU	MS-V10	1	BRF1203		

TRC 21 Technology Drive

Irvine, CA 92618

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 06/24/2008 16:12

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0808077-02	Client Sam	ple Name	: 0018, MW-2, MV	J-2, 6/20/200	8 6:14:00	MAC						
					Prep	Run		Instru-		QC	МВ	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	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	
Toluene	ND	ug/L	0.50	EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	The second secon
Total Xylenes	ND	ug/L	1.0	EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	
Ethanol	ND	ug/L	250	EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203	ND	
1,2-Dichloroethane-d4 (Surrogate)	111	%	76 - 114 (LCL - UCL) EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203		
Toluene-d8 (Surrogate)	93.3	%	88 - 110 (LCL - UCL) EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203		
4-Bromofluorobenzene (Surrogate)	96.3	%	86 - 115 (LCL - UCL) EPA-8260	06/20/08	06/24/08 04:11	SDU	MS-V10	1	BRF1203		

TRC

Project: 0018

Reported: 06/24/2008 16:12

21 Technology Drive Irvine, CA 92618 Project Number: [none]
Project Manager: Anju Farfan

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0808077-03	Client Sam	ple Name	e: 0018, MW-3, MW	/-3, 6/20/200	8 5:58:00	DAM						
	!				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	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
Toluene	ND	ug/ L	0.50	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
Total Xylenes	ND	ug/L	1.0	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
Ethanol	ND	ug/L	250	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ND	
1,2-Dichloroethane-d4 (Surrogate)	111	%	76 - 114 (LCL - UCL	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203	ada 150 BAR 1888 BA adaPARA de des a	
Toluene-d8 (Surrogate)	97.6	%	88 - 110 (LCL - UCL	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203		
4-Bromofluorobenzene (Surrogate)	93.4	%	86 - 115 (LCL - UCL	EPA-8260	06/20/08	06/24/08 04:29	SDU	MS-V10	1	BRF1203		

TRC 21 Technology Drive Irvine, CA 92618 Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 06/24/2008 16:12

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	BRF1203	Matrix Spike	0807955-03	0	24.780	25.000	ug/L		99.1		70 - 130
		Matrix Spike Duplicat	e 0807955-03	0	27.140	25.000	ug/L	9.5	109	20	70 - 130
Toluene	BRF1203	Matrix Spike	0807955-03	0	23.260	25.000	ug/L		93.0		70 - 130
		Matrix Spike Duplicat	e 0807955-03	0	25.940	25.000	ug/L	11.2	104	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRF1203	Matrix Spike	0807955-03	ND	10.410	10.000	ug/L		104		76 - 114
		Matrix Spike Duplicat	e 0807955-03	ND	10.620	10.000	ug/L		106		76 - 114
Toluene-d8 (Surrogate)	BRF1203	Matrix Spike	0807955-03	ND	9.9200	10.000	ug/L		99.2		88 - 110
		Matrix Spike Duplicat	e 0807955-03	ND	9.8700	10.000	ug/L		98.7		88 - 110
4-Bromofluorobenzene (Surrogate)	BRF1203	Matrix Spike	0807955-03	ND	9.6300	10.000	ug/L		96.3		86 - 115
, ,		Matrix Spike Duplicat	e 0807955-03	ND	9.9500	10.000	ug/L		99.5		86 - 115

TRC

21 Technology Drive Irvine, CA 92618 Project: 0018

Project Number: [none]
Project Manager: Aniu Farfan

Reported: 06/24/2008 16:12

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

•										Control	<u>Limits</u>	
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
Benzene	BRF1203	BRF1203-BS1	LCS	26.470	25.000	0.50	ug/L	106		70 - 130		
Toluene	BRF1203	BRF1203-BS1	LCS	27.020	25.000	0.50	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRF1203	BRF1203-BS1	LCS	10.280	10.000		ug/L	103		76 - 114		
Toluene-d8 (Surrogate)	BRF1203	BRF1203-BS1	LCS	10.160	10.000		ug/L	102		88 - 110		and the second of the second o
4-Bromofluorobenzene (Surrogate)	BRF1203	BRF1203-BS1	LCS	9.8100	10.000	4 to 10 to 1	ug/L	98.1	71 1.30-1-131-131-131-131	86 - 115		And the Market of Profile Standards are under land for effective of the ad-

TRC 21 Technology Drive Irvine, CA 92618

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 06/24/2008 16:12

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	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
Ethylbenzene	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		management (mark) (t. 20 to 18 contact minor account
Toluene	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
Total Xylenes	BRF1203	BRF1203-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BRF1203	BRF1203-BLK1	ND	ug/L	10		
Diisopropyl ether	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
Ethanol	BRF1203	BRF1203-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BRF1203	BRF1203-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BRF1203	BRF1203-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BRF1203	BRF1203-BLK1	103	%	76 - 114 (LCL - UCL)	
Toluene-d8 (Surrogate)	BRF1203	BRF1203-BLK1	101	%	88 - 110 (LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	BRF1203	BRF1203-BLK1	98.7	%	86 - 115 (LCL - UCL)	



TRC

Project: 0018

Reported: 06/24/2008 16:12

21 Technology Drive Irvine, CA 92618

Project Number: [none]

Project Manager: Anju Farfan

Notes And Definitions

MDL

Method Detection Limit

ND

Analyte Not Detected at or above the reporting limit

POL

Practical Quantitation Limit

RPD.

Relative Percent Difference

BC LABORATORIES INC.	SAMPLE RECEIPT FORM					M Rev. No. 11 04/04/08 Page Of					
Submission #08-8077	ode:			ТВ	Batch #						
SHIPPING INFOR				SHIPP	ING CON	TAINER					
Federal Express □ UPS □	Hand Del				Ice Che			пе 🗆			
BC Lab Field Service 🗹 Other [Lab Field Service ☑ Other □ (Specify)					x 🗆	Oth	er 🗆 (Sp	ecify)		
				<u> </u>							
Refrigerant: Ice Blue Ice] None	e 🗆 🤇	Other 🗆	Comme	ents:		· · · · · · · · · · · · · · · · · · ·				
MADE N. MEDE P. 11 (1997) 11 11 12 12 12 12 12 12 12 12 12 12 12	Container Intäct? Yes	5. ** Tallet 1881. ** Saligner (1	None 🗆	Comme	nts:						
All samples received? Yes. ☐ No □	All sample	s containe	rs intact?	∕es⁄Z—No	0	Descrip	tion(s) mate				
COC Received	ı	Ice C	hest ID	<u>-/c</u>	Emi	issivity tainer <u>@</u>	97	Date/T	ime <u>6/2</u>	0/8 ₂₀₁₀	
ØYES □ NO		Tempe Thermome	erature: 🔼	<u>//3,2</u> °C	Con	tainer <u>&</u>	<u> </u>	Analys	it Init AZ	200	
		Hermon	eter ID.	<u> </u>							
SAMPLE CONTAINERS	<u> </u>	T	T .	Ι .	1	NUMBERS.	7		9	10	
OT GENERAL MINERAL/ GENERAL PHYSICAL	1	1 2	3	4	5	6	 	8	1 3	1 10	
PT PE UNPRESERVED					1				1		
QT INORGANIC CHEMICAL METALS				<u> </u>						1	
PT INORGANIC CHEMICAL METALS	<u> </u>			<u> </u>	<u> </u>	 	1				
PT CYANIDE											
PT NITROGEN FORMS											
PT TOTAL SULFIDE							1				
2oz. NITRATE/NITRITE							4				
100ml TOTAL ORGANIC CARBON											
Q1 TOX											
PT CHEMICAL OXYGEN DEMAND											
PtA PHENOLICS											
40ml VOA VIAL TRAVEL BLANK		<u> </u>		Ĺ							
40ml VOA VIAL	A-3	A 13	A3,	í	() (()	()	1	()	
QT EPA 413.1, 413.2, 418.1					ļ					<u> </u>	
PT ODOR					 						
RADIOLOGICAL	<u> </u>								<u> </u>		
BACTERIOLOGICAL			ļ		ļ					ļ	
40 ml VOA VIAL- 504						 			<u> </u>		
QT EPA 508/608/8080										 	
QT EPA 515.1/8150										 	
QT EPA 525					<u> </u>	 	<u> </u>				
QT EPA 525 TRAVEL BLANK	ļi					 					
100ml EPA 547				·		 				 	
100ml EPA 531.1						 					
Q1 EPA 548	 					-					
QT EPA 549					1	 	<u> </u>				
QT EPA 632	 										
QT EPA 8015M											
QT QA/QC						 					
QT AMBER					 	 					
8 OZ. JAR 32 OZ. JAR											
SOIL SLEEVE	<u> </u>										
PCB VIAL											
PLASTIC BAG											
FERROUS IRON											
ENCORE						1					

Comments: Sample Numbering Completed By:__ A = Actual / C = Corrected

ALM Date/Time: 6/20/8 2020

BC LABORATORIES, INC.

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

CHAIN OF CUSTODY

		·	55-8077			An	aly	/sis	Re	que	este	ed			
	onoco Phillips/ TRC 6201 Clavemant A	Consultant Firm: TRO	C	MATRIX (GW) Ground- water (S) Soil	, Gas by 8015			8260 full list w/ oxygenates	8260B			, 8260B	826013	Turnaround Time Requested	
City:		4-digit site#: OO!	18	(WW)	STEX/MTBE by 8021B,	Z.	3015	xyge	'S BY	30B	S	رط -:		Red	
	KLAND	i	2-4509118496	Waste- water	by 8	801	bу 8	0 / M	λχο	826	C/M	BE	o V	Time	
State: CA	A Zip:	Project #: 154771	= = = = = = = = = = = = = = = = = = =	(SL)	JE.	by S	SEL	list	BE/	L by	y G	MTB	D is	. pu	
Conoco	Phillips Mgr: B. Bocsh	Sampler Name: 🔁	CKY H	Sludge	CMT	GAS		full	CMT	NO	တ်		61	aron	
Lab#	Sample Description	Field Point Name	Date & Time Sampled		BTE	TPH GAS by 8015M	TPH DIESEL by 8015	8260	BTEX/MTBE/OXYS	ETHANOL by 8260B	TPH -G by GC/MS	BTEX	EDC,	Turn	
		mu-l	6/20/08 0622	GW					X	X	X		X	571	2
	-2	mw-2	0614								1	X			
	-3	mw-3	V 0558	1						V		V		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-
			gradual to the	CHKBY	DIS.	TRIE	UTI	ON							
			Production of the Production o	The same	11/	UB-		رسین معتبد ارسیار							
		· s		September 2000 and an annual section of the section	المستدة شدادات الما	e justine	<u> Sandalanda</u>	State of the second	(Adam and Adam)						
Comments:		Relinquished by: (Si	15-			//	eived D	171	la		61	& Ti	08	210	
GLOBAL I	D: T6600102231	Relinquished by: (Si Relinquished by: (Si	04600/8/			12	eive	by:		٤	2رم	& Ti Ø - 0 & Ti	98	अंग्रेड	`
	10 mm	Reinquished by: (Si	26.20.	08 2010)	Ked		ipy:	· 	-				2010	A STATE OF THE PARTY OF THE PAR

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.





21 Technology Drive Irvine, CA 92618

949.727.9336 PHONE 949.727.7399 FAX

www.TRCsolutions.com

DATE:

October 13, 2008

TO:

ConocoPhillips Company

76 Broadway

Sacramento, CA 95818

ATTN:

MR. TERRY GRAYSON

SITE:

76 STATION 0018

6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA

RE:

QUARTERLY MONITORING REPORT JULY THROUGH SEPTEMBER 2008

Dear Mr Grayson:

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: Ms. Caitlin Morgan, Delta Consultants (4 copies)

Enclosures 20-0400/0018R20 QMS

QUARTERLY MONITORING REPORT JULY THROUGH SEPTEMBER 2008

76 STATION 0018 6201 Claremont Avenue Oakland, California

Prepared For:

Mr. Terry Grayson CONOCOPHILLIPS COMPANY 76 Broadway Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations

Date: 10/11/04



No. PG3531

	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 – 09/19/08 Groundwater Sampling Field Notes – 09/19/08
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

Summary of Gauging and Sampling Activities July 2008 through September 2008 76 Station 0018 6201 Claremont Avenue Oakland, CA

Project Coordinator: Terry Grayson Telephone: 916-558-7666	Water Sampling Contractor: <i>TRC</i> Compiled by: Christina Carrillo
Date(s) of Gauging/Sampling Event: 09/19/08	Complica by: Offiscina Carrino
Sample Points	
Groundwater wells: 3 onsite, 0 offsite Purging method: Submersible pump Purge water disposal: Veolia/Rodeo Unit 100 Other Sample Points: 0 Type:	Points gauged: 3 Points sampled: 3
Liquid Phase Hydrocarbons (LPH)	
Sample Points with LPH: 0 Maximum thickness LPH removal frequency: Treatment or disposal of water/LPH:	s (feet): Method:
Hydrogeologic Parameters	one.
Depth to groundwater (below TOC): Minimum Average groundwater elevation (relative to availab Average change in groundwater elevation since pre Interpreted groundwater gradient and flow direction Current event: 0.01 ft/ft, southwest Previous event: 0.01 ft/ft, southeast (06/2)	le local datum): 187.39 feet evious event: -2.07 feet on:
Selected Laboratory Results	
Sample Points with detected Benzene : 0 Sample Points with detected Sample : 0 Sample Points with detected Sample : 0 Sample Points with detected Sample : 0 Sample Points with detected	Sample Points above MCL (1.0 µg/l):
Sample Points with TPH-G by GC/MS 1 Sample Points with MTBE 8260B 1	Maximum: 63 μg/l (MW-1) Maximum: 12 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

IPH-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

trichloroethene

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

ICE

- 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 "I" 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.
- 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

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

Table 1 CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS September 19, 2008 76 Station 0018

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Totuene	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)	$(\mu g/l)$	
MW-1					l in feet: 10	.0-30.0)								
09/19/08	8 208.15	21.11	0.00	187.04	-2.29		63	ND<0.50	ND<0.50	ND<0.50	ND<1.0		12	
MW-2			(Scree	n Interva	l in feet: 10	.0-30.0)								
09/19/08	8 210.27	22.62	0.00	187.65	-1.49		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-3			(Scree	n Interva	l in feet: 10.	.0-30.0)								
09/19/08	8 208.98	21.49	0.00	187.49	-2.44		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			Ethylene-				
Sampled		Ethanol	dibromide	i,2-DCA			
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME
	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)
MW-1			ě				
09/19/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0,50
MW-2							
09/19/08		ND<250					
MW-3							
09/19/08		ND<250					

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

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in	трн-с	ТРН-G			Ethyl-	Total	MTBE	MTBE	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(8015M)	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(Teet)	(ICCI)				(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	
MW-1 08/24/0	0 208.15	18.55	•	en Interval 189.60	in feet: 10.	.0-30.0) 120		0.67	ND	0.86	i.4	54	54	
11/16/0				187.85	-1.75	169		ND	1.20	1.74	0.629	68.6	97.7	
02/09/0				187.83	0.14	330		i.3	ND	1.74	4.6	140	150	
05/11/0				190.47	2.48			ND	ND ND	ND		-		
08/10/0				187.77		1250	••				ND so so	145	122	
11/07/0				185.47	-2.70 -2.30	580		ND<0.50		ND<0.50	ND<0.50	110	150	
02/06/0						250		ND<0.50	1.5	ND<0.50	ND<0.50	120	100	
				191.95	6.48	790		ND<2.5	12	8.8	ND<2.5	90	72	
05/08/0				190.61	-1.34	890	450	ND<2.5	ND<2.5	ND<2.5	ND<2.5	78	81	
08/09/0				187.94	-2.67		450	ND<0.50			ND<1.0		100	
11/29/0				185.82	-2.12		110		ND<0.50		ND<1.0		72	
02/03/0			0.00	191.74	5.92		540	ND<0.50	ND<0.50		ND<1.0		40	
05/05/0				192.06	0.32		670	ND<2.5	ND<2.5	ND<2.5	ND<5.0	Lar Las	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	5 208.15	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	

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

Date	TOC Elevation	Depth to Water	LPH Thickness	Ground-	Change									Comments
Sampled	Elevation	vv ater	THICKHESS	water Elevation	in Elevation	TPH-G	TPH-G	D	<i>T</i>	Ethyl-	Total	MTBE	MTBE	
	(feet)	(feet)	(feet)	(feet)	(feet)	(8015M)	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
			(1001)	(Icci)	(ICCL)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(µg/l)	
MW-1 03/08/0	continued 06 208.15		0.00	196.46	2.93		130	ND<0.50	ND<0.50	ND<0.50	ND<1.0		21	
06/08/0				193.87	-2.59		66			ND<0.50			16	
09/15/0				190.66	-3.21		96			ND<0.50			6.1	
12/22/0	06 208.15	18.68	0.00	189.47	-1.19		570			ND<0.50		***	18	
03/28/0	7 208.15	18.40	0.00	189.75	0.28		190			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			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	
06/20/0	8 208.15	18.82	0.00	189.33	-1.95		100	ND<0.50	ND<0.50	ND<0.50	ND<1.0		13	
09/19/0	08 208.15	21.11	0.00	187.04	-2.29		63	ND<0.50	ND<0.50	ND<0.50	ND<1.0		12	
MW-2			(Scre	en Interval	in feet: 10.	0-30.0)								
08/24/0	00 210.27	19.69	•	190.58		ND		ND	ND	ND	ND	ND	ND	
11/16/0	00 210.27	21.61	0.00	188.66	-1.92	ND		ND	ND	ND	ND	ND	ND	
02/09/0	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	
02/06/0	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		
05/08/0	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		
08/09/0	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	
11/29/0	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	
02/03/0	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	
0018								Page 2	2 of 5					

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

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water	Change in	ТРН-С	TPH-G			Ethyl-	Total	MTBE	MTBE	Comments
-				Elevation	Elevation	(8015M)	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	(μg/l)	(µg/l)	(µg/l)	
MW-2	continued													
05/05/0	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	
09/04/0	3 210.27	22.75	0.00	187.52	-5.60									No analysis; past holding time
11/13/0	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	
01/29/0	4 210.27	18.73	0.00	191.54	4.29		ND<50	0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
05/07/0	4 210.27	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	4 210.27	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	4 210.27	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	5 210.27	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	5 210.27	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	5 210.27	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	5 210.27	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	
06/20/0	8 210.27	21.13	0.00	189.14	-3.34		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
09/19/0	8 210.27	22.62	0.00	187.65	-1.49		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-3			(Scro	on Intorval	in feet: 10	0_30.6)								

MW-3

(Screen Interval in feet: 10.0-30.0)

(TRC

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

Date		Depth to	LPH	Ground-	Change									Comments
Sampled	Elevation	Water	Thickness	Water	ın Elevation	TPH-G	TPH-G			Ethyl-	Total	MTBE	MTBE	
						(8015M)	(GC/MS)	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	
MW-3	continued													
08/24/0	0 208.98	18.68	0.00	190.30		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	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		
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	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	3 208.98	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									No analysis; past holding time
11/13/0	3 208.98	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	4 208.98	17.79	0.00	191.19	4.14		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	u b	ND<2.0	
05/07/0	4 208.98	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	4 208.98	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	4 208.98	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	5 208.98	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	5 208.98	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	

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

		Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	
V-3 c	ontinued													
/08/06	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	
/08/06	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	
/15/06	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	
/22/06	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	
/28/07	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	
/25/07	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	
/22/07	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	
/14/07	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	
/26/08	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	
/20/08	208.98	19.05	0.00	189.93	-2.31		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
/19/08	208.98	21.49	0.00	187.49	-2.44		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
	V-3 c/08/06 /08/06 /08/06 /15/06 /22/06 /28/07 /25/07 /14/07 /26/08 /20/08	(feet) V-3 continued /08/06 208.98 /08/06 208.98 /15/06 208.98 /22/06 208.98 /22/07 208.98 /25/07 208.98 /14/07 208.98 /26/08 208.98	(feet) (feet) (feet) (feet) (7-3 continued) (708/06 208.98 12.06) (708/06 208.98 13.82) (715/06 208.98 17.67) (722/06 208.98 19.10) (728/07 208.98 20.30) (725/07 208.98 21.61) (714/07 208.98 21.43) (726/08 208.98 16.74) (720/08 208.98 19.05)	(feet) (feet) (feet) (feet) (feet) (feet) (feet) (7-3 continued) (708/06 208.98 12.06 0.00 (708/06 208.98 13.82 0.00 (715/06 208.98 17.67 0.00 (722/06 208.98 19.10 0.00 (725/07 208.98 18.60 0.00 (725/07 208.98 20.30 0.00 (725/07 208.98 21.61 0.00 (726/08 208.98 16.74 0.00 (720/08 208.98 19.05 0.00	National Water Thickness Water Elevation	Name	TPH-G Rect Thickness Water In Elevation Elevation TPH-G (8015M)	No. Continued Water Thickness Water Elevation Elevation TPH-G (8015M) (GC/MS)	Note Elevation Water Thickness Water Elevation Elevation TPH-G (8015M) (GC/MS) Benzene	Field Elevation Water Thickness Water Elevation Elevation Elevation TPH-G (8015M) (GC/MS) Benzene Toluene (feet) (feet) (feet) (feet) (feet) (feet) (µg/l) (µg	Note Elevation Water Thickness Water Elevation Elevation Elevation Elevation Elevation Elevation Elevation TPH-G (8015M) (GC/MS) Benzene Toluene Televation TPH-G (feet) (f	Total Continued Continu	Mater Thickness Water Thickness Water Thickness Water Elevation Elevation Elevation TPH-G (8015M) (GC/MS) Benzene Toluene benzene Xylenes (8021B)	Field Elevation Water Thickness water Elevation TPH-G (8015M) (GC/MS) Benzene Toluene benzene Xylenes (8021B) (8260B)



Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date			Ethylene-				
Sampled		Ethanol	dibromide	1,2-DCA			
	TBA	(8260B)	(EDB)	(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

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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date			Ethylene-				
Sampled		Ethanol	dibromide	1,2-DCA			
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME
P	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)
MW-1 c							
03/28/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
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
06/20/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/19/08	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	0.1>DN	ND<1.0
11/13/03		ND<500					
01/29/04		ND<500					
05/07/04		ND<50					
08/27/04		ND<50	77.77				
11/23/04		ND<50					\
02/09/05	75	ND<50		<u></u>			
06/16/05		ND<50		~~			
09/27/05		ND<250					
12/30/05		ND<250					
03/08/06		ND<250					
06/08/06		ND<250		w.			

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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	ЕТВЕ	TAME
	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)
MW-2 cc							
09/15/06		ND<250					
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					
06/20/08		ND<250					
09/19/08		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	=-	<u></u>		 	
08/27/04		ND<50					
11/23/04		ND<50					
11/25/07		MD~30					

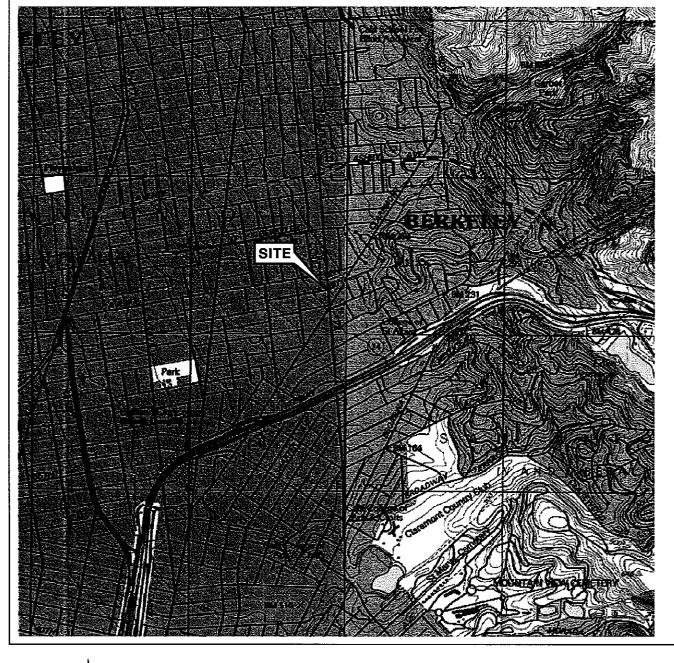
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Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 0018

Date			Ethylene-				
Sampled		Ethanol	dibromide	1,2-DCA			
	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME
	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)
	ontinued						
02/09/05		ND<50					en en
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					
12/22/06		ND<250			22		
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					
06/20/08		ND<250					
09/19/08		ND<250					 -







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

SCALE 1:24,000



SOURCE:

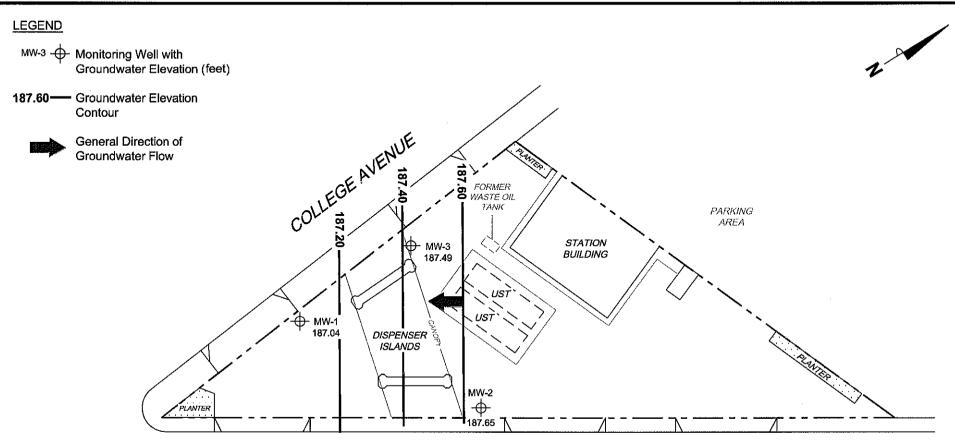
United States Geological Survey 7.5 Minute Topographic Map: Oakland East & Oakland West Quadrangle



PROJECT: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA VICINITY MAP



CLAREMONT AVENUE



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: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA GROUNDWATER ELEVATION
CONTOUR MAP
September 19, 2008

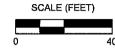
PLANTER

LEGEND MW-3 Monitoring Well with Dissolved-Phase TPH-G (GC/MS) Concentration (µg/l) COLLEGE AVENUE FORMER MASTE OIL TANK PARKING AREA STATION BUILDING DISPENSER SILANDS

MW-2

ND<50

CLAREMONT AVENUE



NOTES:

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.

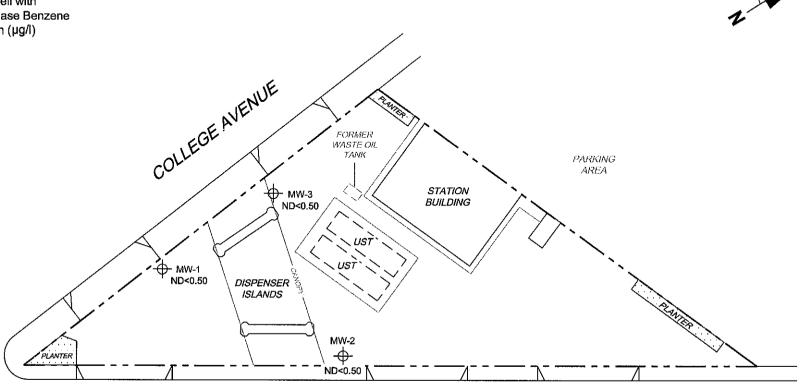


PROJECT: 154771

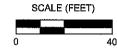
FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE TPH-G (GC/MS)
CONCENTRATION MAP
September 19, 2008

LEGEND



CLAREMONT AVENUE





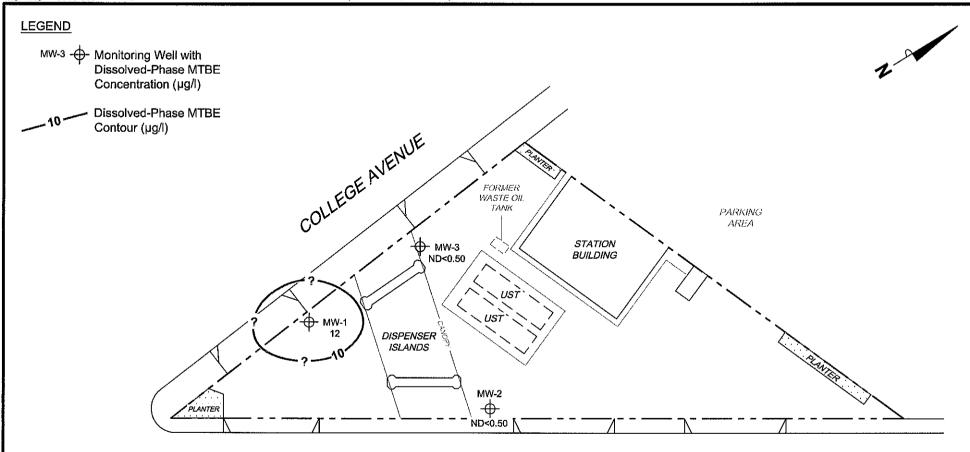
μg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.



PROJECT: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE BENZENE CONCENTRATION MAP September 19, 2008



CLAREMONT AVENUE



NOTES:

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

MTBE = methyl tertiary butvl ether.

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

UST = underground storage tank. Results obtained using EPA Method 8260B.



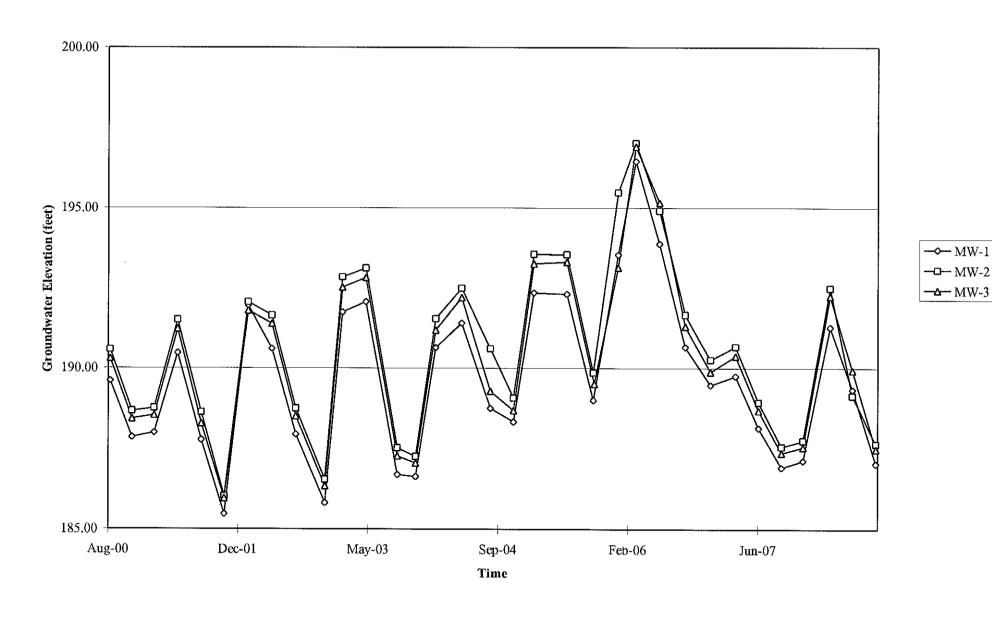
PROJECT: 154771

FACILITY:

76 STATION 0018 6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA DISSOLVED-PHASE MTBE CONCENTRATION MAP September 19, 2008

GRAPHS

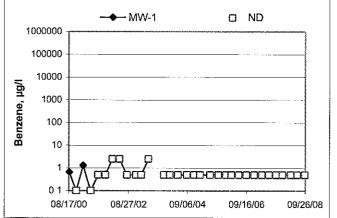
Groundwater Elevations vs. Time 76 Station 0018

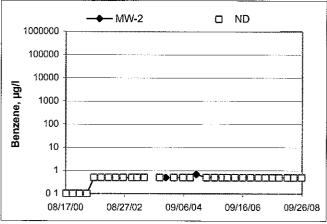


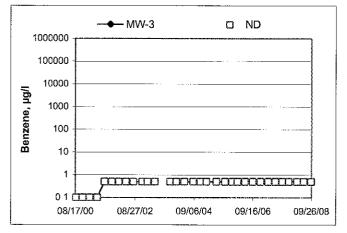
Elevations may have been corrected for apparent changes due to resurvey

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:	Pick	y H.	Jol) #/Task #:	1847	4/1/42	0	Date: <u>9/19/08</u>
Site #	0018		Projec		A.coll			Page _ l of _ \
Well#	тос	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
mw-i	X	0510	29.73	21.11			0633	24
mw-3	X	0516		21.49				مرد
mw-2	×	0520	29.54		-	 -	0622	211
	. <u></u>							
	<u></u>						<u>.</u> .	
		<u></u>						
								* *
FIELD DATA	COMPL	ETE	QA/QC		coc	W	ELL BOX C	ONDITION SHEETS
MANIFEST		DRUM IN	VENTOR	Y	TRAFFIC	CONTROL		



GROUNDWATER SAMPLING FIELD NOTES

Technician: RICKYH.

Site:	3	Proj	ect No.: 13	54771			Date:_	9/19/	08
Well No	mw-	(to 4 m all	Purge Metho	od:	5w6			
Total Depth Water Colur	(feet)ann (feet):	21.11 29.73 8.62 et):22.83		Depth to Pro LPH & Wate Casing Diam	duct (feet): r Recovered (g neter (Inches): 2 ne (gallons): 2	allons):	<u></u>		
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F, 6)	рН	D.O (mg/L)	ORP	Turbidity
0542		(1334)	2,	6093	14.00	7.32			
			4	679.5	15.1	6.79			
	0548		6	665.1	17.1	6.49			<u> </u>
Stati	c at Time Sa	ımpled	Tot	al Gallons Pu	rged		Sample	Time	
Comments	१।,२5			ζ		00	33		

Well No	Purge Method: 506
Depth to Water (feet): 21,49 Total Depth (feet) 30.68 Water Column (feet): 8.69	Depth to Product (feet): LPH & Water Recovered (gallons): Casing Diameter (Inches): 1 Well Volume (gallons): 2

omments	21.53		<u> </u>	<u>6</u>	<u></u>		0640	,	
Stat	ic at Time Sa	ampled	Tot	al Gallons Pu	rged		Sample		
							<u> </u>	- 1711	
	0601				<u> </u>	6.12			
	Of Orm		6	497.	15kt 17.5.	4.128		<u> </u>	
			4	1194.8	17.3	6.16			
0555		14.	2	551.9	16.7	6.23			
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	DO (mg/L)	ORP	Turbid



GROUNDWATER SAMPLING FIELD NOTES

Technician: RICKYH.

Site: <u>00 </u>	8	Pro	ject No :/ 5	4771			Date:	9/19	105
Well No	mu-			Purge Metho	od: Sul	5			
Depth to V	Vater (feet):_	22.62		Depth to Pro	oduct (feet):	listed and the same			
		29.54	 -		r Recovered (g				
		6.92			neter (Inches):_	· -		 ,	
		eet): <u>24.60</u>			ne (gallons):_飞				
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F, 🗭	Hq	D O (mg/L)	ORP	Turbidity
0608			2	4-92496.7		6.63			
	mi iti		4	494.7	17.0	5.99			
	0614		6	493.7	17.3	5.47			
									
Sta	tic at Time S	ampled	Tota	al Gallons Pur	rged	L	Sample	I Time	<u></u>
	22.69			6			0622		· · · · · · · · · · · · · · · · · · ·
Well No				Purae Metho	d:				
					duct (feet):				
					Recovered (g				
					eter (Inches):				
		eet):			ne (gallons):			_	
	- , ,	•			(94.10110)1				
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D O. (mg/L)	ORP	Turbidity
								·	
Stat	ic at Time Sa	ampled	Tota	l al Gallons Pur	ged		Sample	Time	
Comments):	····, , <u>-</u>	***************************************						



Date of Report: 09/30/2008

Anju Farfan

TRC 21 Technology Drive Irvine, CA 92618

RE: 0018

BC Work Order: 0812495

Enclosed are the results of analyses for samples received by the laboratory on 9/19/2008. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

A. M.

Authorized Signature



21 Technology Drive Irvine, CA 92618

Project: 0018

Project Number: Inonei Project Manager: Anju Fartan

Reported: 09/30/2008 12:29

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Informatio	on .			
0812495-01	COC Number:		Receive Date:	09/19/2008 19:15	Delivery Work Order:
	Project Number:	0018	Sampling Date:	09/19/2008 06:33	Global ID: T0600102231
	Sampling Location:	MW-1	Sample Depth:		Matrix: W
	Sampling Point:	MW-1	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	•		Cooler ID:
0812495-02	COC Number:		Receive Date:	09/19/2008 19:15	Delivery Work Order:
	Project Number:	0018	Sampling Date:	09/19/2008 06:40	Global ID: T0600102231
	Sampling Location:	MVV-3	Sample Depth:		Matrix: W
	Sampling Point:	MW-3	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	·		Cooler ID:
0812495-03	COC Number:		Receive Date:	09/19/2008 19:15	Delivery Work Order:
	Project Number:	0018	Sampling Date:	09/19/2008 06:22	Global ID: T0600102231
	Sampling Location:	MVV-2	Sample Depth:		Matrix: W
	Sampling Point:	MVV-2	Sample Matrix:	Water	Sample QC Type (SACode): CS
	Sampled By:	TRCI	•		Cooler ID:



TRC 21 Technology Drive Irvine, CA 92618

Project: 0018

Project Number: Inone) Project Manager: Anju Farfan

Reported: 09/30/2008 12:29

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	812495-01	Client Sample	e Name:	0018, MW-1, N	/W-1, 9	/19/2008	6:33:00AM							
							Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL N	/IDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
1,2-Dibromoethane		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
1,2-Dichloroethane		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Ethylbenzene		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Methyl t-butyl ether		12	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Toluene		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Total Xvienes		ND	ug/L	1.0		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
t-Amvi Methvl ether		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
t-Butvl alcohol		ND	цg/L	10		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Diisopropyl ether		ФИ	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Ethanol		ND	ug/L	250		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Ethyl t-butyl ether		ND	ug/L	0.50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
Total Purgeable Petroleum Hydrocarbons		63	ug/L	50		EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	i	BRI1696		
1,2-Dichloroethane-d4 (Sur	rogate)	99.8	%	76 - 114 (LCL - U	CL)	EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	i	BRI1696		
Toluene-d8 (Surrogate)		102	%	88 - 110 (LCL - U	CL)	EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	1	BRI1696		
4-Bromofluorobenzene (Sur	rrogate)	97.7	%	86 - 115 (LCL - U	CL)	EPA-8260	09/29/08	09/30/08 04:35	KEA	MS-V12	i	BRI1696		

21 Technology Drive Irvine, CA 92618

Project: 0018

Project Number: Inonei Project Manager: Anju Farfan

Reported: 09/30/2008 12:29

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0812495-	02 Client Samp	le Name:	0018, MW-3, MW	3, 9/19/2008	6:40:00AM							
C	D14		501		Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDI	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND ND	ug/L	0.50	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	í	BRI1696	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	1	BRI1696	ND	
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	1	BRI1696	ND	
Toluene	ND	ug/L	0.50	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	1	BRI1696	ND	
Total Xylenes	ND	ug/L	1.0	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	1	BRI1696	ND	
Ethanol	ND	ug/L	250	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	1	BRI1696	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	1	BRI1696	ND	
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	i	BRI1696		
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	í	BRI1696		
4-Bromofluorobenzene (Surrogate)	94.6	%	86 - 115 (LCL - UCL)	EPA-8260	09/29/08	09/30/08 04:10	KEA	MS-V12	j	BRI1696		

Project: 0018

Project Number: Inonei

Reported: 09/30/2008 12:29

21 Technology Drive Irvine, CA 92618

Project Manager: Anju Farfan

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 081249	5-03	Client Sample	e Name:	0018, MW-2, M	W-2, 9/19/2	2008 6	3:22:00AM							
							Prep	Run		Instru-		QC	МВ	Lab
Constituent		Result	Units	PQL M	IDL Met	hod	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	0.50	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	1	BR!1696	ND	
Ethylbenzene		ND	ug/L	0.50	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	1	BR11696	ND	
Methyl t-butyl ether		ND	ug/L	0.50	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	í	BRI1696	ND	
Toluene		ND	ug/L	0,50	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	í	BRI1696	ND	
Total Xylenes		ND	ug/L	1.0	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	1	BRI1696	ND	
Ethanol		ND	ug/L	250	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	í	BRI1696	ND	
Total Purgeable Petroleum Hydrocarbons		ND	ug/L	50	EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	í	BRI1696	ND	
1,2-Dichloroethane-d4 (Surrogate)		101	%	76 - 114 (LCL - UC	L) EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	í	BRI1696		
Toluene-d8 (Surrogate)		102	%	88 - 110 (LCL - UC	L) EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	i	BRI1696		
4-Bromofluorobenzene (Surrogate)		98.8	%	86 - 115 (LCL - UC	L) EPA	-8260	09/29/08	09/30/08 03:46	KEA	MS-V12	í	BRI1696		

Project: 0018

21 Technology Drive Project Number: Inone! Irvine, CA 92618 Project Manager: Anju Farfan

Reported: 09/30/2008 12:29

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

										Contr	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	BRI1696	Matrix Spike	0812510-14	0	20.750	25.000	ug/l.		83.0		70 - 130
		Matrix Spike Duplicate	0812510-14	0	23,200	25.000	ug/L	11.1	92.8	20	70 - 130
Toluene	BRI1696	Matrix Spike	0812510-14	0	24.100	25.000	ug/L		96.4		70 - 130
		Matrix Spike Duplicate	0812510-14	0	25,900	25.000	ug/L	7.6	104	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRi1696	Matrix Spike	0812510-14	ND	9.8300	10.000	ug/L		98.3		76 - 114
		Matrix Spike Duplicate	0812510-14	ND	10.100	10.000	ug/L		101		76 - 114
Toluene-d8 (Surrogate)	BRI1696	Matrix Spike	0812510-14	ND	10.150	10.000	ug/L		102		88 - 110
		Matrix Spike Duplicate	0812510-14	ND	9.9800	10.000	ug/L		99.8		88 - 110
4-Bromofluorobenzene (Surrogate)	BRI1696	Matrix Spike	0812510-14	ND	9.7900	10.000	ug/L		97.9		86 - 115
		Matrix Spike Duplicate	0812510-14	ND	9.7500	10.000	ug/L		97.5		86 - 115



21 Technology Drive

Irvine, CA 92618

Project: 0018

Project Number: [none]

Project Manager: Anju Farfan

Reported: 09/30/2008 12:29

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

									Control Limits			
Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
Benzene	BRI1696	BRI1696-B\$1	LCS	26.580	25.000	0.50	ug/L	106		70 - 130		
Toluene	BRI1696	BRI1696-BS1	LCS	30.810	25.000	0.50	ug/L	123		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRI1696	BRI1696-BS1	LCS	9.7500	10.000		ug/L	97.5		76 - 114		
Toluene-d8 (Surrogate)	BRI1696	BRI1696-B\$1	LCS	10.150	10.000		ug/L	102		88 - 110		
4-Bromofluorobenzene (Surrogate)	BRI1696	BRI1696-B\$1	LCS	9.8200	10.000		ug/L	98.2		86 - 115		



21 Technology Drive

Irvine, CA 92618

Project: 0018

Project Number: [none]
Project Manager: Anju Farfan

Reported: 09/30/2008 12:29

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	BRI1696	BRI1696-BLK1	ND	ug/L	0.50	· · · · · · · · · · · · · · · · · · ·	
Ethylbenzene	BRI1696	BRI1696-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BRI1696	BRI1696-BLK1	ND	ug/L	0.50		
Toluene	BRI1696	BRI1696-BLK1	ND	ug/L	0.50		
Total Xvienes	BRI1696	BRI1696-BLK1	ND	ug/L	1.0		
Ethanol	BRI1696	BRI1696-BLK1	ND	ug/L	250		
Total Purgeable Petroleum Hydrocarbons	BRI1696	BRI1696-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BRI1696	BRI1696-BLK1	106	%	76 - 114	(LCL - UCL)	
Toluene-d8 (Surrogate)	BRI1696	BRI1696-BLK1	100	%	88 - 110	(LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	BRI1696	BRI1696-BLK1	98,8	%	86 - 115	(LCL - UCL)	

Project: 0018 Reported: 09/30/2008 12:29

Project Number: |none|
Project Manager: Anju Farfan

Notes And Definitions

21 Technology Drive

Irvine, CA 92618

TRC

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit

RPD Relative Percent Difference

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page Of										
										
Submission #UN (X-14)						0,	10 0015	FAINED	·	<u> </u>
SHIPPING INFOR	SHIPPING CONTAINER Ice Chest Ø None □ Box □ Other □ (Specify)									
Federal Express □ UPS □ H										
BC Lab Field Service ☑ Other □	(Specif)) <u> </u>			20%		· <u> </u>			
		- 04								
Refrigerant: Ice Ø Blue Ice □	None		7	omment						
			None	Comme	nts:					
inizero este Most.	latic Ves	SENS EVE							<u> </u>	
All samples received? Yes No A	II samples	containers	intact? Ye	S NO E	נ	Descript	ion(s) mate	h COC?. Y	es No	
				1			· · · · · · · · · · · · · · · · · · ·		79915	2
	y: 0.97 Container: vca Thermometer				er ID: <u>47</u>	<u> </u>	Date/Time/91/5108			
☐ YES ☐ NO Temperature: A 1.4 °C / C ☐ ○ 5 °C Analyst Init 41								nit <u>J N V</u>	0	
OLLEN F OCUTABLEDO			ı i		SAMPLE		T	T	T	
SAMPLE CONTAINERS	1	2	3	4	5	6	7	8	9	10
OT GENERAL MINERALI GENERAL PHYSICAL	 				 	 :	 -	 	 -	1
PT PE UNPRESERVED	·	 	├──{		 -			 -	 	
OT INORGANIC CHEMICAL METALS		<u> </u>	 				 		 	
PT INORGANIC CHEMICAL METALS		ļ			<u></u>	 	f		· · · · ·	 -
PT CYANIDE		<u> </u>				ļ — — — — — — — — — — — — — — — — — — —		<u> </u>	1	
PT NITROGEN FORMS								<u> </u>	 	
PT TOTAL SULFIDE			<u></u>				<u> </u>		 	
20Z. NITRATE / NITRITE									 	
PT TOTAL ORGANIC CARBON		<u></u>								
PT TOX				V-						
PT CHEMICAL OXYGEN DEMAND PLA PHENOLICS										
		-							 	 -
40ml VOA VIAL TRAVEL BLANK 40ml VOA VIAL	A 3	AZ	AZ		()	()		()	t	
OT EPA 413.1, 413.2, 418.1	4-2							ee .	l — —	
PT ODOR						-				-
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504		1.						::	2.0	
OT EPA 508/608/8080		2				, , , , , , , , , , , , , , , , , , , ,				13.1
QT EPA 515,1/8150										. (
OT EPA 525				1						Ų,
OT EPA 525 TRAVEL BLANK									*	
100ml EPA 547	· .						_			
100ml EPA 531,1					•					
OT EPA 548										2.1
QT EPA 549			<u> </u>							
OT EPA 632			<u> </u>							
OT EPA 8015M										
OT AMBER		<u> </u>	<u> </u>					4		
8 OZ. JAR		<u> </u>								
32 OZ. JAR										7
SOIL SLEEVE		<u></u>								
PCB VIAL										
PLASTIC BAG		 -							L	
FERROUS IRON										
ENCORE							,			
Comments:						·····				
Sample Numbering Completed By: A=Actual / C=Corrected	· · · · · · · · · · · · · · · · · · ·	Date/Tin	ne:	010	7					
				Tide	Н	DOCSIWP80	LAB_DOCS\F(DR MS\S AMRE	C2.WPD]	•
								e e e e e e e e e e e e e e e e e e e	;	
										5.0

BE LABORATORIES, INC.

4100 Atlas Court Bakersfiel (661) 327-4911 FAX (661

Bakersfield, CA 93308 FAX (661) 327-1918

CHAIN OF CUSTODY

	(001) 321-1911 TAX (001) 321-191		MENVERE	3,677
Bill to: Conoco Phillips/TRC Address: Cov clayings AVE City:	Consultant Firm: TRC 21 Technology Drive Irvine, CA 92618-2302 Attn: Anju Farfan A-digit site#: 0018 Workorder # 01062-9509119496	MATRIX (GW) Ground- water (S) Soil (WW) Waste- water	TPH GAS by 8015M TPH DIESEL by 8015 B260 full list w/ oxygenates BTEX/MTBE/OXYS BY 8260B	260B 260B 8260B
Conoco Phillips Mgr: JERRY Gay	Sampler Name: Ricky H. Field Point Name Date & Time	Waste-water (SL) Sludge SIUDGE	TPH GAS by 8015M TPH DIESEL by 8015 8260 full list w/ oxyger BTEX/MTBE/OXYS BY	TPH-G by GC/MS TPH-G by GC/MS TOTEX/ALTRE Turnaround Time I
	Sampled 9/19/08 0633	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		XXX STD
2	N.5 7 0635	1	, v	
CHINE	DAI 7			
SUB-OUT L				
Comments:	Relingation by: (Signature)		Regerved by:	Date & Time 9/19/05 /330
GLOBAL ID: 70600 102231	Relinguished by: (Signature) Relinguished by: (Signature) QQQ	1915	Received by:	Date & Time (1908) 1600 Date & Time (9-19-08) 1918

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.