



76 Broadway
Sacramento, California 95818

RECEIVED

11:15 am, May 06, 2009

Alameda County
Environmental Health

June 9, 2008

Ms. Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: **Quarterly Summary Report – 1st Quarter 2008**

76 Service Station No. 6129
3420 35th Avenue
Oakland, California

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 contact me at (916) 558-7612.

Sincerely,

Bill Borgh
Site Manager – Risk Management and Remediation

Attachment

June 9, 2008

Ms. Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Quarterly Summary Report – First Quarter 2008
Delta Project Number: C1Q-6129-604

Dear Ms. Jakub:



On behalf of ConocoPhillips Company (COP), Delta Consultants (Delta) is submitting the Quarterly Summary Report – First Quarter 2008 and forwarding a copy of TRC's *Quarterly Monitoring Report, January through March 2008*, dated April 17, 2008, for the following location:

Service Station

76 Service Station No. 6129

Location

3420 35th Avenue
Oakland, California

Sincerely,
DELTA CONSULTANTS

A handwritten signature in black ink, appearing to read "Cord Dennig".

Cord Dennig
Staff Scientist

A handwritten signature in black ink, appearing to read "Dennis S. Dettloff".

Dennis S. Dettloff, P.G.
Senior Project Manager
California Registered Professional Geologist No. 7480



cc: Mr. William Borgh, ConocoPhillips (electronic copy)

QUARTERLY SUMMARY REPORT
First Quarter 2008
76 Service Station No. 6129
3420 35th Avenue
Oakland, California

SITE DESCRIPTION

The site is currently an operating 76 Service Station that dispenses gasoline stored in two 12,000-gallon underground storage tanks (USTs) from two dispenser islands. An automotive repair facility is present at the site which contains three service bays. Additionally, there is one used-oil UST, three hydraulic lifts, and three groundwater monitoring wells (MW-1 through MW-3) present at the site. There was previously one used-oil UST, one clarifier beneath the central hydraulic lift, and two floor drains, all of which have been removed.

PREVIOUS ASSESSMENT

According to Kaprealian Engineering, Inc. (KEI), in 1989 two 10,000-gallon gasoline USTs and one 550-gallon waste oil UST were removed from the site. Analytical data from soil samples collected beneath the former gasoline USTs, used-oil UST, and product piping indicated low concentrations of petroleum hydrocarbons were present in each of the sampling areas. Three groundwater monitoring wells (MW-1 through MW-3) were installed in 1989 to depths of approximately 44 feet below ground surface (bgs).

In 1990, four soil borings (EB1 through EB4) were advanced at the site in the vicinity of MW-3 in an attempt to define the petroleum hydrocarbon impact to soil. Based on the analytical data from the soil sampling, approximately 230 cubic yards of soil were excavated from an area between the dispenser islands and around monitoring well MW-3 in 1991. The excavation was completed as to not destroy monitoring well MW-3. Analytical data from confirmation soil samples indicated the majority of the impacted soil had been removed.

On November 12 and 13, 2003, as part of a due diligence investigation, four soil borings (SB-1 and SB-3 through SB-5) were advanced to total depths of approximately 31.5 to 36.5 feet bgs. Proposed boring SB-2 was unable to be advanced due to the presence of subsurface utilities and/or structures. Groundwater was encountered in the borings at a depth of approximately 35 feet bgs. Methyl tertiary butyl ether (MTBE) was reported at concentrations ranging from 0.37 to 0.41 milligrams per kilogram (mg/kg) in the soil samples collected at depths ranging from 26 and 31 feet bgs. All other constituents were below the laboratory's indicated reporting limits for the soil samples analyzed. The three existing groundwater monitoring wells were sampled on November 13, 2003. Analytical data indicated MTBE was present at concentrations ranging from 240 and 3,700 micrograms per liter ($\mu\text{g/L}$), with the most elevated concentrations found in monitoring wells MW-2 (2,100 $\mu\text{g/L}$) and MW-3 (3,700 $\mu\text{g/L}$).

On September 13, 2006, Delta observed the advancement of six boreholes by a licensed contractor using CPT technology. The CPT borings provided accurate continuous records of the subsurface lithology and stratigraphy and measured depth to

first groundwater. Groundwater and soil samples were not collected from the CPT borings.

On November 7 and 8, 2006, Delta observed the advancement of five soil borings (B-2, B-7, B-8, B-9, and B-14) by a licensed contractor using hollow stem auger technology. Four of these soil borings were advanced adjacent to the previously advanced CPT borings. On December 27, 2006, four soil borings (B-10, B-12, B-15, and B-16) were advanced using hollow stem auger technology. Soil samples were collected every five feet for lithologic descriptions, field hydrocarbon screening, and laboratory analysis. A description of this work is presented in the *Soil Boring Site Assessment Report* dated February 19, 2007.

SENSITIVE RECEPTORS

2004 - A 1,000-foot radius well search was completed by the request of the Alameda County Public Works Agency (ACPWA). The search indicated that a six-inch diameter irrigation well was located at 3397 Arkansas Street, approximately 800 feet west-northwest of the site. The well was installed in August 1977 to a total depth of 62 feet bgs with depth to water reported at 18 feet bgs. Alameda County Health Care Services update of July 30, 1984 reported the well owner as Arthur Smith.

2006 - A survey entailing a visit to the State of California Department of Water Resources (DWR) office in Sacramento was conducted to examine well log records and to identify domestic wells within the survey area. The DWR survey indicated three potential receptors were located within one mile of the site; two irrigation wells located 0.5 mile and 0.8 mile north (up-gradient) of the site and one domestic/irrigation well located 0.8 mile northeast (up-gradient) of the site. Two additional potential receptors were identified although the specific addresses could not be located. Based on groundwater gradient information and distance to the receptors from the site, identified receptors do not appear to be at risk due to gasoline constituents in groundwater at the site.

MONITORING AND SAMPLING

Groundwater monitoring and sampling activities were conducted at the site from January 1990 through May 1991. Sampling activities were re-initiated during the third quarter 2004. The monitoring well network is currently sampled on a quarterly basis. Samples collected from the monitoring wells are analyzed for total purgeable petroleum hydrocarbons (TPPH), benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and MTBE, di-isopropyl ether (DIPE), tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), 1,2-dichloroethane (1,2-DCA), ethylene dibromide (EDB) and ethanol by EPA Method 8260. TRC has been retained to perform the monitoring and sampling. A copy of TRC's *Quarterly Monitoring Report-January through March 2008*, dated April 17, 2008, and has been forwarded with this report.

During the most recent groundwater monitoring event, conducted on March 17, 2008, the depth to groundwater ranged from 26.74 feet (MW-2) to 27.22 feet (MW-1) below top of casing (TOC). The groundwater flow direction was interpreted to be to the southwest with a gradient of 0.02 foot per foot (ft/ft). This is consistent with the previous quarterly sampling event when the groundwater flow direction was interpreted

to be to the southwest with a gradient of 0.01 ft/ft. Historic groundwater flow directions presented as a rose diagram included as Attachment A.

Contaminants of Concern:

- **TPPH:** TPPH was reported above the laboratory's indicated reporting limits in monitoring wells MW-2 and MW-3 at 570 µg/L and 220 µg/L, respectively during the first quarter 2008 sampling event. However, the notes in the analytical report indicate that the TPPH in monitoring wells MW-2 and MW-3 does not exhibit a "gasoline" pattern and that the TPPH is entirely due to MTBE.
- **Benzene:** Benzene was below the laboratory's indicated reporting limit in each of the monitoring wells purged and sampled during the first quarter 2008 sampling event.
- **MTBE:** MTBE was reported above the laboratory's indicated reporting limits in monitoring wells MW-1, MW-2, and MW-3 at 14 µg/L, 630 µg/L, and 520 µg/L, respectively during the first quarter 2008 sampling event.

DIPE was above the laboratory's indicated reporting limit in monitoring well MW-2 at 18 µg/L during the first quarter 2008 sampling event. 1,2-DCA was above the laboratory's reporting limit in monitoring well MW-3 at 0.65 µg/L. With the exception of the constituents listed above, all other constituents tested were below the laboratory's indicated reporting limits during the first quarter 2008 sampling event.

REMEDIATION STATUS

Remediation has not been required by the lead regulatory agency for this site.

CHARACTERIZATION STATUS

Recent site assessment data has been submitted to the agency for review. Groundwater monitoring is ongoing.

RECENT CORRESPONDENCE

No recent correspondence was documented during this reporting period.

WASTE DISPOSAL SUMMARY

In 1991, based on the analytical results of soil samples from borings EB1 through EB4, approximately 230 cubic yards of soil were excavated from the area between the dispensers and the pump islands in the area around MW-3.

Thirty three (33) drums of non-hazardous soil and water produced during recent field activities were transported off-site for disposal on 10/19/06 and 12/29/06.

THIS QUARTER ACTIVITIES (First Quarter 2008)

1. TRC conducted the quarterly monitoring and sampling event at the site.

NEXT QUARTER ACTIVITIES (Second Quarter 2008)

1. TRC will conduct the quarterly groundwater monitoring and sampling event at the site.

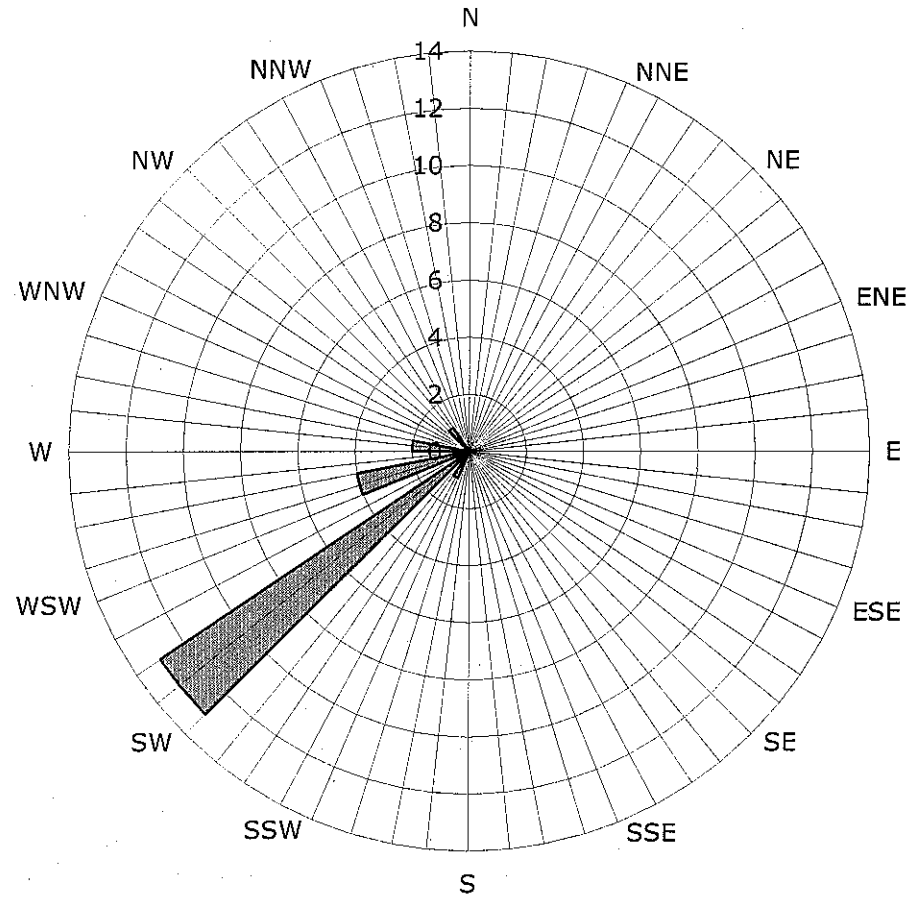
CONSULTANT: Delta Consultants

Attachment A – Historic Groundwater Flow Directions

Attachment A

Historic Groundwater Flow Directions

Historic Groundwater Flow Directions
ConocoPhillips Site No. 6129
3420 35th Avenue
Oakland, California



Legend
Concentric circles represent
quarterly monitoring events
First Quarter 1990 through
First Quarter 2008
21 data points shown

■ Groundwater Flow Direction



21 Technology Drive
Irvine, CA 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCSolutions.com

DATE: April 17, 2008

TO: ConocoPhillips Company
76 Broadway
Sacramento, CA 94563

ATTN: MR. BILL BORGH

SITE: 76 STATION 6129
3420 35TH AVENUE
OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT
JANUARY THROUGH MARCH 2008

Dear Mr. Borgh:

Please find enclosed our Quarterly Monitoring Report for 76 Station 6129, located at 3420 35th Avenue, Oakland, California. If you have any questions regarding this report, please call us at (949) 727-9336.

Sincerely,

TRC

A handwritten signature in black ink, appearing to read "Anju Farfan".

Anju Farfan
Groundwater Program Operations Manager

CC: Mr. Dennis Dettloff, Delta Consultants (1 copy)

Enclosures:
20-0400/6129R018.QMS

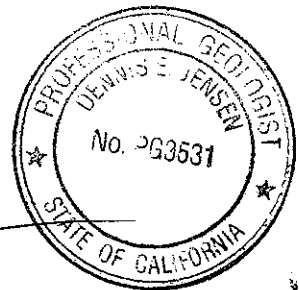
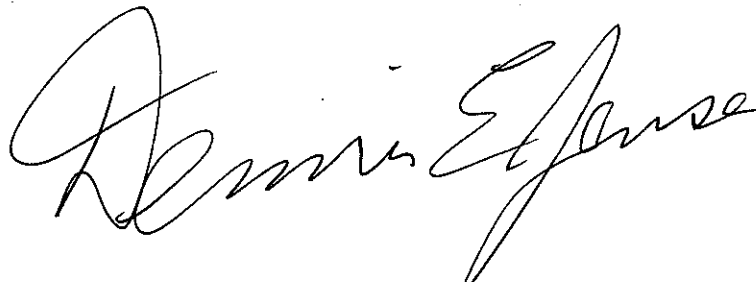
**QUARTERLY MONITORING REPORT
JANUARY THROUGH MARCH 2008**

76 STATION 6129
3420 35th Avenue
Oakland, California

Prepared For:

Mr. Bill Borgh
CONOCOPHILLIPS COMPANY
76 Broadway
Sacramento, CA 94563

By:



Senior Project Geologist, Irvine Operations

Date: 4/9/06



LIST OF ATTACHMENTS

Summary Sheet	Summary of Gauging and Sampling Activities
Tables	<p>Table Key</p> <p>Contents of Tables</p> <p>Table 1: Current Fluid Levels and Selected Analytical Results</p> <p>Table 1a: Additional Current Analytical Results</p> <p>Table 2: Historic Fluid Levels and Selected Analytical Results</p> <p>Table 2a: Additional Historic Analytical Results</p>
Figures	<p>Figure 1: Vicinity Map</p> <p>Figure 2: Groundwater Elevation Contour Map</p> <p>Figure 3: Dissolved-Phase TPH-G (GC/MS) Concentration Map</p> <p>Figure 4: Dissolved-Phase Benzene Concentration Map</p> <p>Figure 5: Dissolved-Phase MTBE Concentration Map</p>
Graphs	<p>Groundwater Elevations vs. Time</p> <p>Benzene Concentrations vs. Time</p> <p>MTBE 8260B Concentrations vs. Time</p>
Field Activities	<p>General Field Procedures</p> <p>Field Monitoring Data Sheet - 03/17/08</p> <p>Groundwater Sampling Field Notes - 03/17/08</p>
Laboratory Reports	<p>Official Laboratory Reports</p> <p>Quality Control Reports</p> <p>Chain of Custody Records</p>
Statements	<p>Purge Water Disposal</p> <p>Limitations</p>

Summary of Gauging and Sampling Activities
January 2008 through March 2008
76 Station 6129
3420 35th Ave.
Oakland, CA

Project Coordinator: **Bill Borgh**
Telephone: **916-558-7612**

Water Sampling Contractor: **TRC**
Compiled by: **Christina Carrillo**

Date(s) of Gauging/Sampling Event: **03/17/08**

Sample Points

Groundwater wells: **3 onsite, 0 offsite** Wells gauged: **3** Wells sampled: **3**
Purging method: **Bailer/submersible pump**
Purge water disposal: **Onyx/Rodeo Unit 100**
Other Sample Points: **0** Type: **n/a**

Liquid Phase Hydrocarbons (LPH)

Wells with LPH: **0** Maximum thickness (feet): **n/a**
LPH removal frequency: **n/a** Method: **n/a**
Treatment or disposal of water/LPH: **n/a**

Hydrogeologic Parameters

Depth to groundwater (below TOC): Minimum: **26.74 feet** Maximum: **27.22 feet**
Average groundwater elevation (relative to available local datum): **74.54 feet**
Average change in groundwater elevation since previous event: **2.93 feet**
Interpreted groundwater gradient and flow direction:
 Current event: **0.02 ft/ft, southwest**
 Previous event: **0.01 ft/ft, southwest (12/14/07)**

Selected Laboratory Results

Wells with detected **Benzene**: **0** Wells above MCL (1.0 µg/l): **n/a**
 Maximum reported benzene concentration: **n/a**

Wells with **TPH-G by GC/MS** **2** Maximum: **570 µg/l (MW-2)**
Wells with **MTBE 8260B** **3** Maximum: **630 µg/l (MW-2)**

Notes:

TABLES

TABLE KEY

STANDARD ABBREVIATIONS

--	=	not analyzed, measured, or collected
LPH	=	liquid-phase hydrocarbons
Trace	=	less than 0.01 foot of LPH in well
ug/l	=	micrograms per liter (approx. equivalent to parts per billion, ppb)
mg/l	=	milligrams per liter (approx. equivalent to parts per million, ppm)
ND<	=	not detected at or above laboratory detection limit
TOC	=	top of casing (surveyed reference elevation)

ANALYTES

BTEX	=	benzene, toluene, ethylbenzene, and (total) xylenes
DIPE	=	di-isopropyl ether
ETBE	=	ethyl tertiary butyl ether
MTBE	=	methyl tertiary butyl ether
PCB	=	polychlorinated biphenyls
PCE	=	tetrachloroethene
TBA	=	tertiary butyl alcohol
TCA	=	trichloroethane
TCE	=	trichloroethene
TPH-G	=	total petroleum hydrocarbons with gasoline distinction
TPH-G (GC/MS)	=	total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B
TPH-D	=	total petroleum hydrocarbons with diesel distinction
TRPH	=	total recoverable petroleum hydrocarbons
TAME	=	tertiary amyl methyl ether
1,1-DCA	=	1,1-dichloroethane
1,2-DCA	=	1,2-dichloroethane (same as EDC, ethylene dichloride)
1,1-DCE	=	1,1-dichloroethene
1,2-DCE	=	1,2-dichloroethene (cis- and trans-)

NOTES

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

REFERENCE

TRC began groundwater monitoring and sampling 76 Station 6129 in August 2004.

Contents of Tables 1 and 2
Site: 76 Station 6129

Current Event

Table 1	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
Table 1a	Well/ Date	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME						

Historic Data

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
March 17, 2008
76 Station 6129

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1														
03/17/08	102.24	27.22	0.00	75.02	3.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	14	
MW-2														
03/17/08	102.16	26.74	0.00	75.42	3.22	--	570	ND<5.0	ND<5.0	ND<5.0	ND<10	--	630	
MW-3														
03/17/08	100.00	26.82	0.00	73.18	2.48	--	220	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	520	

Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
76 Station 6129

Date Sampled	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1							
03/17/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-2							
03/17/08	ND<100	ND<2500	ND<5.0	ND<5.0	18	ND<5.0	ND<5.0
MW-3							
03/17/08	ND<10	ND<250	ND<0.50	0.65	ND<0.50	ND<0.50	ND<0.50

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
January 1990 Through March 2008
76 Station 6129

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1														
01/05/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
05/11/90	--	--	--	--	--	ND	--	ND	7.1	ND	ND	--	--	
08/09/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/14/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
02/12/91	--	--	--	--	--	ND	--	0.32	ND	ND	ND	--	--	
05/09/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/13/03	--	--	--	--	--	--	180	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	240	
08/27/04	102.24	30.65	0.00	71.59	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/23/04	102.24	29.35	0.00	72.89	1.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
02/09/05	102.24	26.89	0.00	75.35	2.46	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.3	
05/17/05	102.24	26.56	0.00	75.68	0.33	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.9	
07/27/05	102.24	27.33	0.00	74.91	-0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/06/05	102.24	29.59	0.00	72.65	-2.26	--	ND<50	ND<0.50	0.93	ND<0.50	1.8	--	ND<0.50	
02/21/06	102.24	28.27	0.00	73.97	1.32	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.6	
06/08/06	102.24	26.07	0.00	76.17	2.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	11	
09/15/06	102.24	28.86	0.00	73.38	-2.79	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.4	
12/14/06	102.24	29.49	0.00	72.75	-0.63	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	3.5	
03/28/07	102.24	27.24	0.00	75.00	2.25	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	0.64	
06/25/07	102.24	28.30	0.00	73.94	-1.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
09/22/07	102.24	30.61	0.00	71.63	-2.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	4.1	
12/14/07	102.24	30.30	0.00	71.94	0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.65	
03/17/08	102.24	27.22	0.00	75.02	3.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	14	

MW-2

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
January 1990 Through March 2008
76 Station 6129

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)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
MW-2 continued														
01/05/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
05/11/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
08/09/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/14/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
02/12/91	--	--	--	--	--	ND	--	ND	0.42	ND	0.51	--	--	
05/09/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/13/03	--	--	--	--	--	--	ND<2000	ND<20	ND<20	ND<20	ND<40	--	2100	
08/27/04	102.16	30.28	0.00	71.88	--	--	950	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1400	
11/23/04	102.16	28.75	0.00	73.41	1.53	--	53	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.2	
02/09/05	102.16	26.08	0.00	76.08	2.67	--	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	400	
05/17/05	102.16	24.53	0.00	77.63	1.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	330	
07/27/05	102.16	27.51	0.00	74.65	-2.98	--	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10	--	580	
12/06/05	102.16	29.13	0.00	73.03	-1.62	--	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	780	
02/21/06	102.16	29.23	0.00	72.93	-0.10	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	340	
06/08/06	102.16	25.76	0.00	76.40	3.47	--	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10	--	440	
09/15/06	102.16	29.17	0.00	72.99	-3.41	--	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	570	
12/14/06	102.16	29.11	0.00	73.05	0.06	--	520	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	770	
03/28/07	102.16	26.68	0.00	75.48	2.43	--	290	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	460	
06/25/07	102.16	25.91	0.00	76.25	0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.2	
09/22/07	102.16	30.18	0.00	71.98	-4.27	--	400	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	530	
12/14/07	102.16	29.96	0.00	72.20	0.22	--	400	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	930	
03/17/08	102.16	26.74	0.00	75.42	3.22	--	570	ND<5.0	ND<5.0	ND<5.0	ND<10	--	630	
MW-3														
01/05/90	--	--	0.00	--	--	ND	--	ND	ND	ND	ND	--	--	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
January 1990 Through March 2008
76 Station 6129

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3 continued														
05/11/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
08/09/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/14/90	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
02/12/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
05/09/91	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
11/13/03	--	--	--	--	--	--	2600	ND<20	ND<20	ND<20	ND<40	--	3700	
08/27/04	100.00	29.61	0.00	70.39	--	--	1700	ND<10	ND<10	ND<10	ND<20	--	2600	
11/23/04	100.00	28.48	0.00	71.52	1.13	--	1500	ND<10	ND<10	ND<10	ND<20	--	1800	
02/09/05	100.00	26.45	0.00	73.55	2.03	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2100	
05/17/05	100.00	25.61	0.00	74.39	0.84	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1200	
07/27/05	100.00	27.35	0.00	72.65	-1.74	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1400	
12/06/05	100.00	28.78	0.00	71.22	-1.43	--	430	ND<0.50	1.6	ND<0.50	3.6	--	1800	
02/21/06	100.00	28.91	0.00	71.09	-0.13	--	420	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1100	
06/08/06	100.00	25.97	0.00	74.03	2.94	--	ND<1200	ND<12	ND<12	ND<12	ND<25	--	1000	
09/15/06	100.00	28.73	0.00	71.27	-2.76	--	ND<1200	ND<12	ND<12	ND<12	ND<12	--	1200	
12/14/06	100.00	28.62	0.00	71.38	0.11	--	ND<1000	ND<10	ND<10	ND<10	ND<10	--	1300	
03/28/07	100.00	26.69	0.00	73.31	1.93	--	500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	--	860	
06/25/07	100.00	26.74	0.00	73.26	-0.05	--	270	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	570	
09/22/07	100.00	29.57	0.00	70.43	-2.83	--	500	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	980	
12/14/07	100.00	29.30	0.00	70.70	0.27	--	270	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	570	
03/17/08	100.00	26.82	0.00	73.18	2.48	--	220	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	520	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 6129

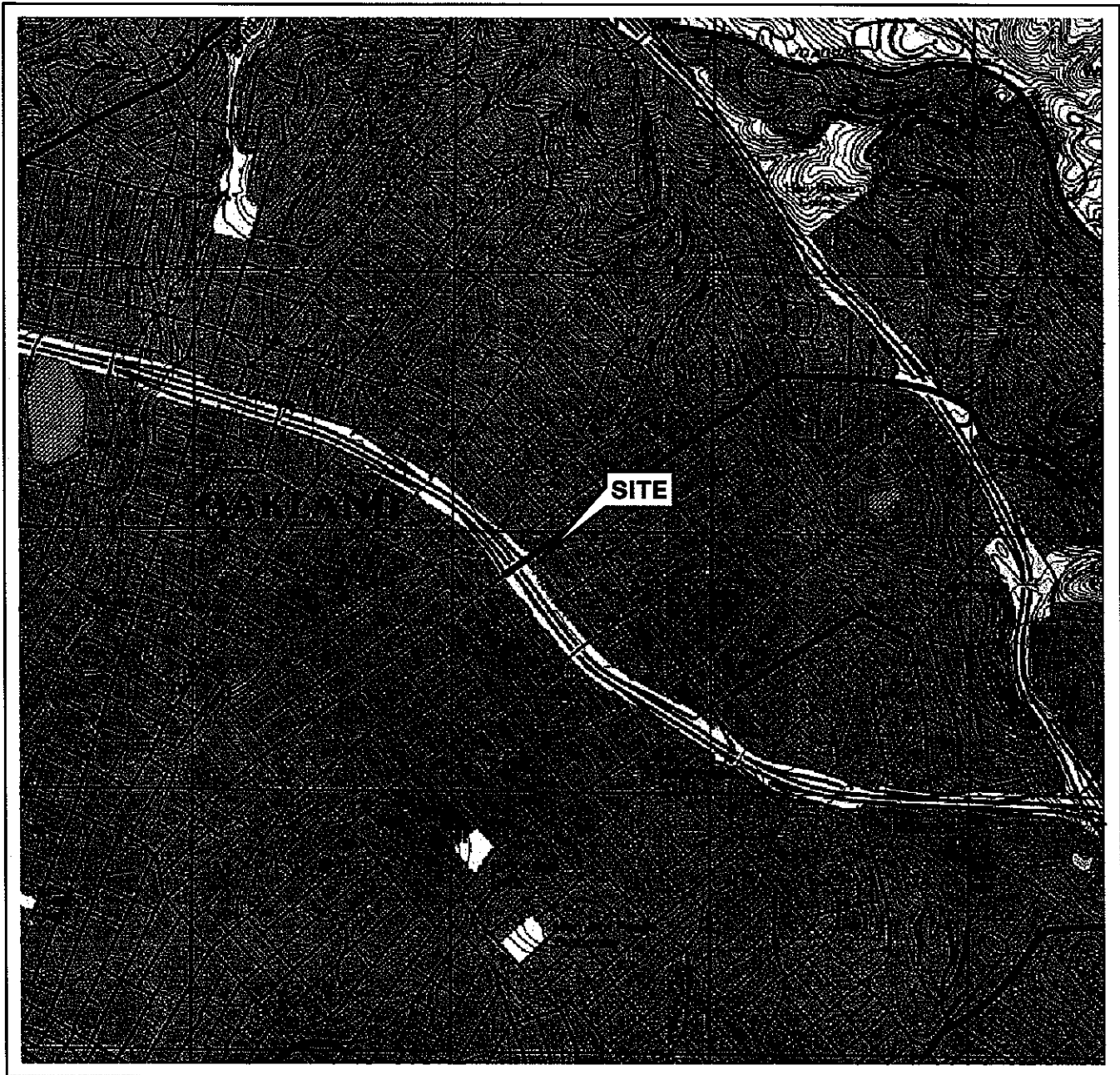
Date Sampled	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
MW-1							
11/13/03	ND<200	ND<1000	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
08/27/04	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
11/23/04	ND<5.0	ND<50	ND<0.50	ND<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
05/17/05	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
07/27/05	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/06/05	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
02/21/06	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
12/14/06	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/28/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
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
03/17/08	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-2							
11/13/03	ND<4000	ND<20000	ND<80	ND<80	ND<80	ND<80	ND<80
08/27/04	ND<50	ND<500	ND<5.0	ND<5.0	24	ND<5.0	ND<5.0
11/23/04	ND<5.0	ND<50	ND<0.50	ND<0.50	18	ND<0.50	ND<0.50
02/09/05	ND<50	ND<500	ND<5.0	ND<5.0	19	ND<5.0	ND<5.0
05/17/05	ND<5.0	ND<50	ND<0.50	ND<0.50	12	ND<0.50	ND<0.50
07/27/05	140	ND<500	ND<5.0	ND<5.0	16	ND<5.0	ND<5.0
12/06/05	61	ND<250	ND<0.50	ND<0.50	15	ND<0.50	ND<0.50
02/21/06	ND<10	ND<250	ND<0.50	ND<0.50	18	ND<0.50	ND<0.50
06/08/06	ND<100	ND<2500	ND<5.0	ND<5.0	14	ND<5.0	ND<5.0

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 6129

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-2 continued							
09/15/06	ND<100	ND<2500	ND<5.0	ND<5.0	17	ND<5.0	ND<5.0
12/14/06	27	ND<250	ND<0.50	ND<0.50	20	ND<0.50	ND<0.50
03/28/07	260	ND<250	ND<0.50	ND<0.50	23	ND<0.50	ND<0.50
06/25/07	ND<10	ND<250	ND<0.50	ND<0.50	23	ND<0.50	ND<0.50
09/22/07	ND<10	ND<250	ND<0.50	ND<0.50	35	ND<0.50	ND<0.50
12/14/07	48	ND<250	ND<0.50	ND<0.50	24	ND<0.50	ND<0.50
03/17/08	ND<100	ND<2500	ND<5.0	ND<5.0	18	ND<5.0	ND<5.0
MW-3							
11/13/03	ND<4000	ND<20000	ND<80	ND<80	ND<80	ND<80	ND<80
08/27/04	ND<100	ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10
11/23/04	ND<100	ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10
02/09/05	130	ND<1000	ND<10	ND<10	ND<10	ND<10	ND<10
05/17/05	ND<100	ND<1000	ND<10	ND<10	ND<10	ND<10	ND<10
07/27/05	360	ND<1000	ND<10	ND<10	ND<10	ND<10	ND<10
12/06/05	160	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
02/21/06	88	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.58
06/08/06	ND<250	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12
09/15/06	ND<250	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12
12/14/06	ND<200	ND<5000	ND<10	ND<10	ND<10	ND<10	ND<10
03/28/07	500	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
06/25/07	11	ND<250	ND<0.50	0.65	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	26	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/17/08	ND<10	ND<250	ND<0.50	0.65	ND<0.50	ND<0.50	ND<0.50

FIGURES

PS=1:1 L:\DCMS VICINITY M A P S\6129vm.dwg Jan 10, 2008 - 2:06pm cwong



SOURCE:

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

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



SCALE 1:24,000




PROJECT: 154771


FACILITY:
76 STATION 6129
3420 35TH AVENUE
OAKLAND, CALIFORNIA


VICINITY MAP

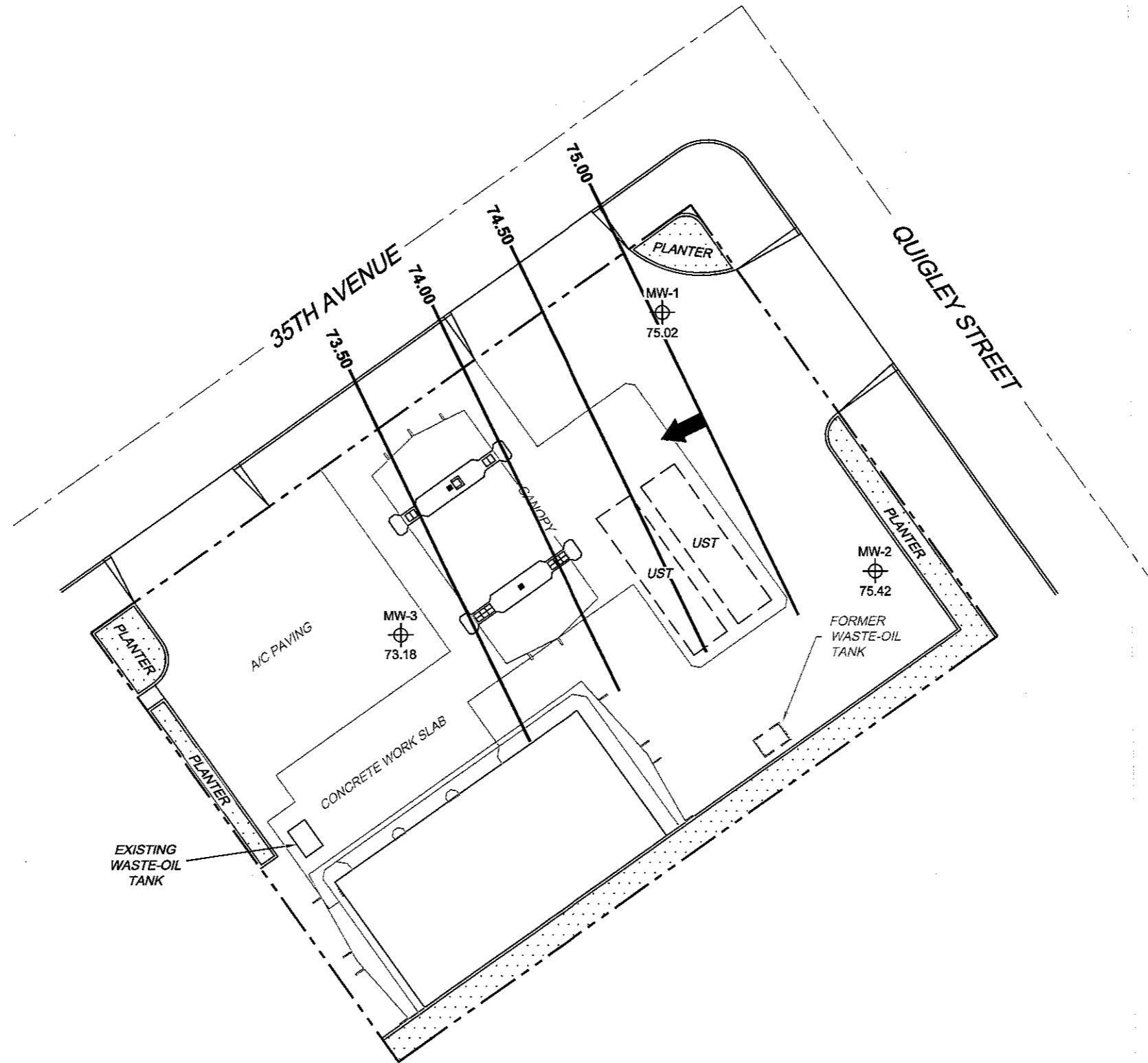
FIGURE 1

LEGEND

MW-3  Monitoring Well with Groundwater Elevation (feet)

75.00  Groundwater Elevation Contour

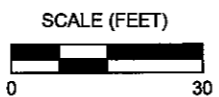
 General Direction of Groundwater Flow



MS-1.1 6129-003 L:\Graphics\QMS NORTH-SOUTH\6129-003\6129-QMS(NEW).dwg Apr 07, 2008 - 4:29pm bschmidt

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

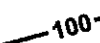
FACILITY:
76 STATION 6129
3420 35TH AVENUE
OAKLAND, CALIFORNIA

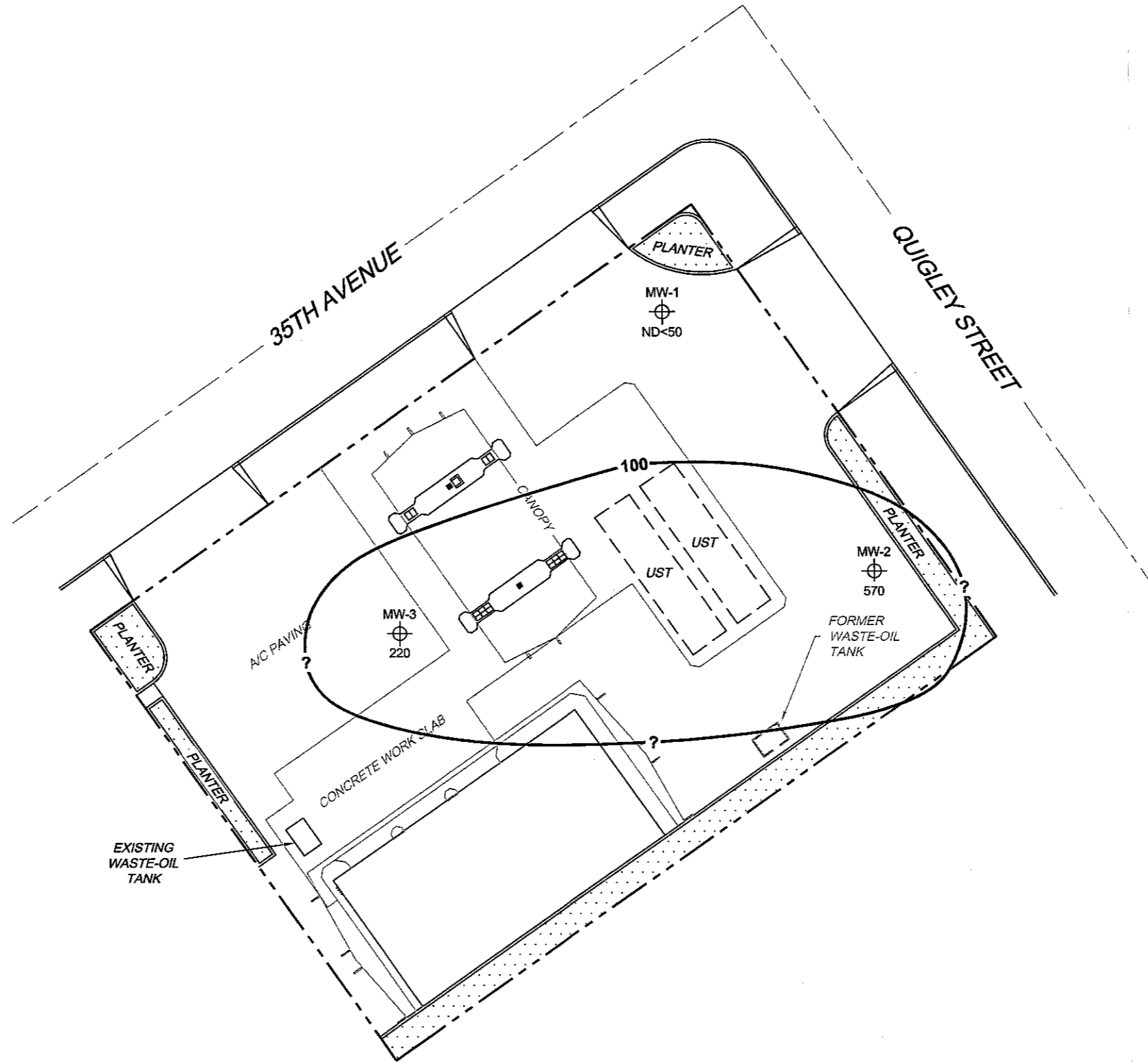
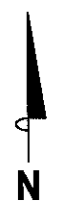
**GROUNDWATER ELEVATION
CONTOUR MAP**
March 17, 2008

FIGURE 2

LEGEND

MW-3  Monitoring Well with Dissolved-Phase TPH-G (GC/MS) Concentration (µg/l)

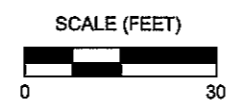
 100 Dissolved-Phase TPH-G (GC/MS) Contour (µg/l)



L:\Graphics\DWG\NORTH-SOUTH\6129-6000\6129-6129.dwg Apr 07, 2008 - 4:35pm bschmidt MS=1:1 6129-003

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.




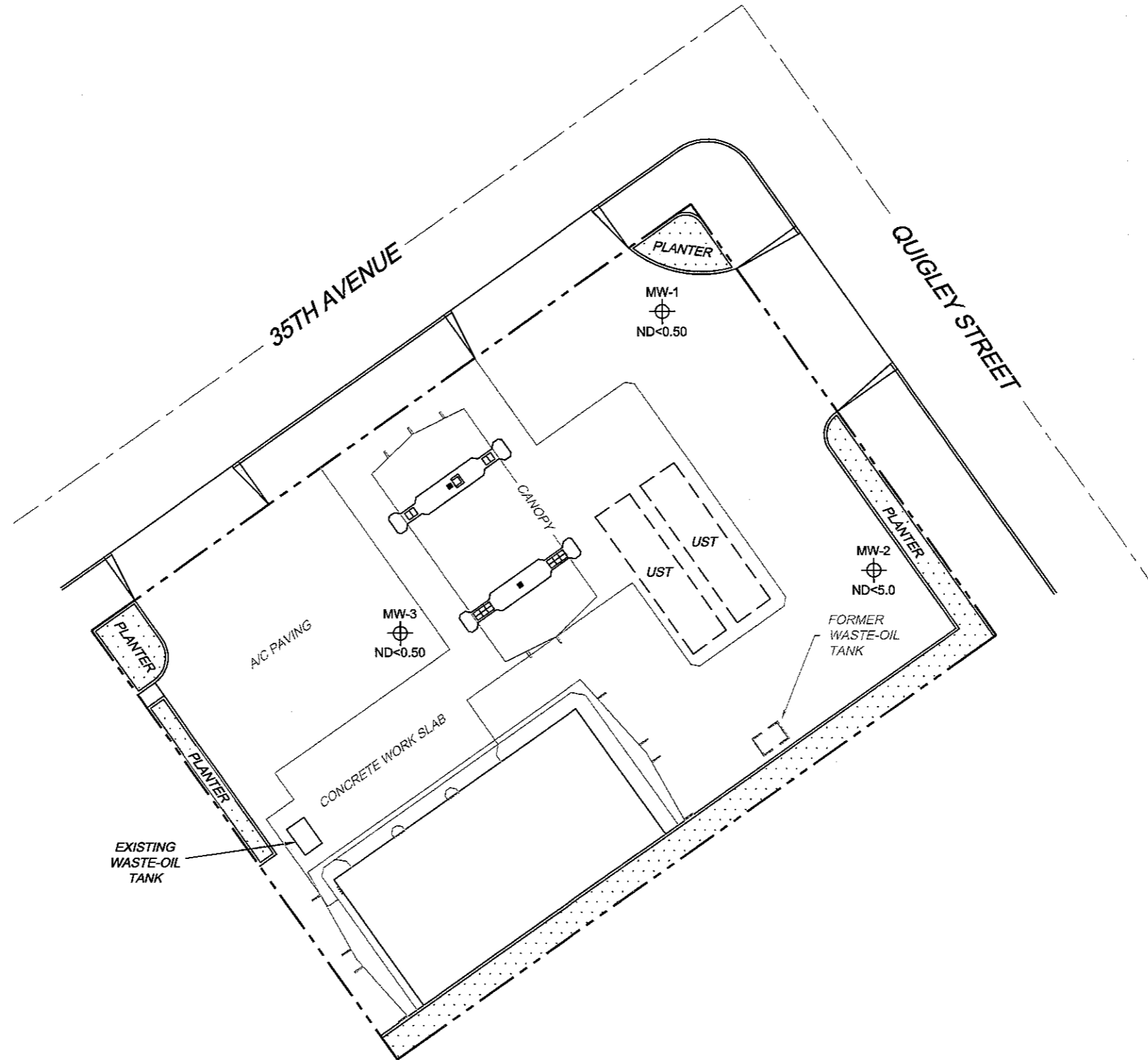
PROJECT: 154771
 FACILITY:
 76 STATION 6129
 3420 35TH AVENUE
 OAKLAND, CALIFORNIA

**DISSOLVED-PHASE TPH-G (GC/MS)
 CONCENTRATION MAP**
 March 17, 2008

FIGURE 3

LEGEND

MW-3  Monitoring Well with Dissolved-Phase Benzene Concentration (µg/l)

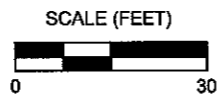


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MS=1:1 6129-003

NOTES:

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



PROJECT: 154771

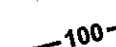
FACILITY:
76 STATION 6129
3420 35TH AVENUE
OAKLAND, CALIFORNIA

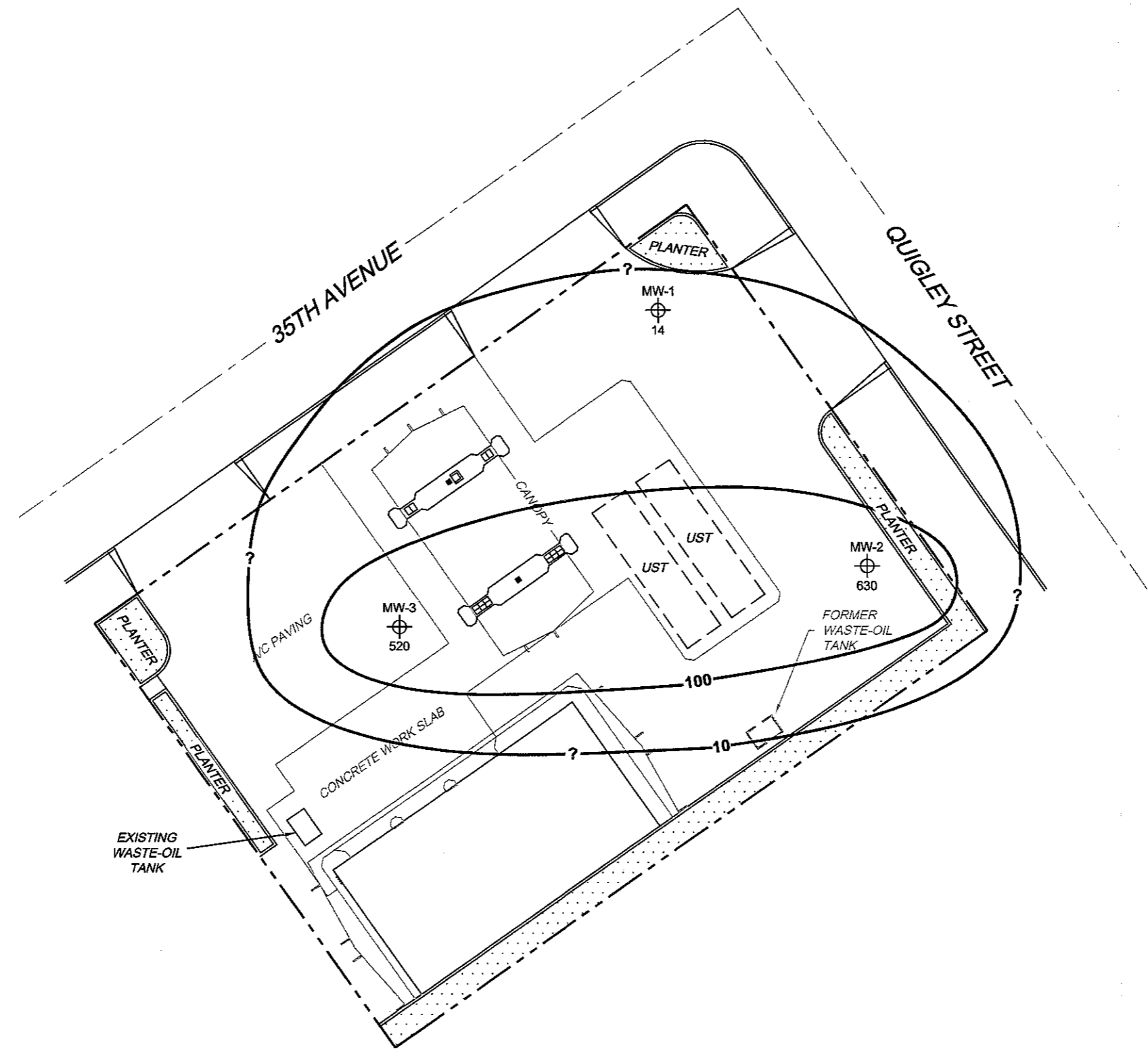
**DISSOLVED-PHASE BENZENE
CONCENTRATION MAP**
March 17, 2008

FIGURE 4

LEGEND

MW-3  Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l)

 100 Dissolved-Phase MTBE Contour (µg/l)

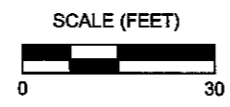


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MS-1:1 6129-003

NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples.
 MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. UST = underground storage tank.
 Results obtained using EPA Method 8260B.



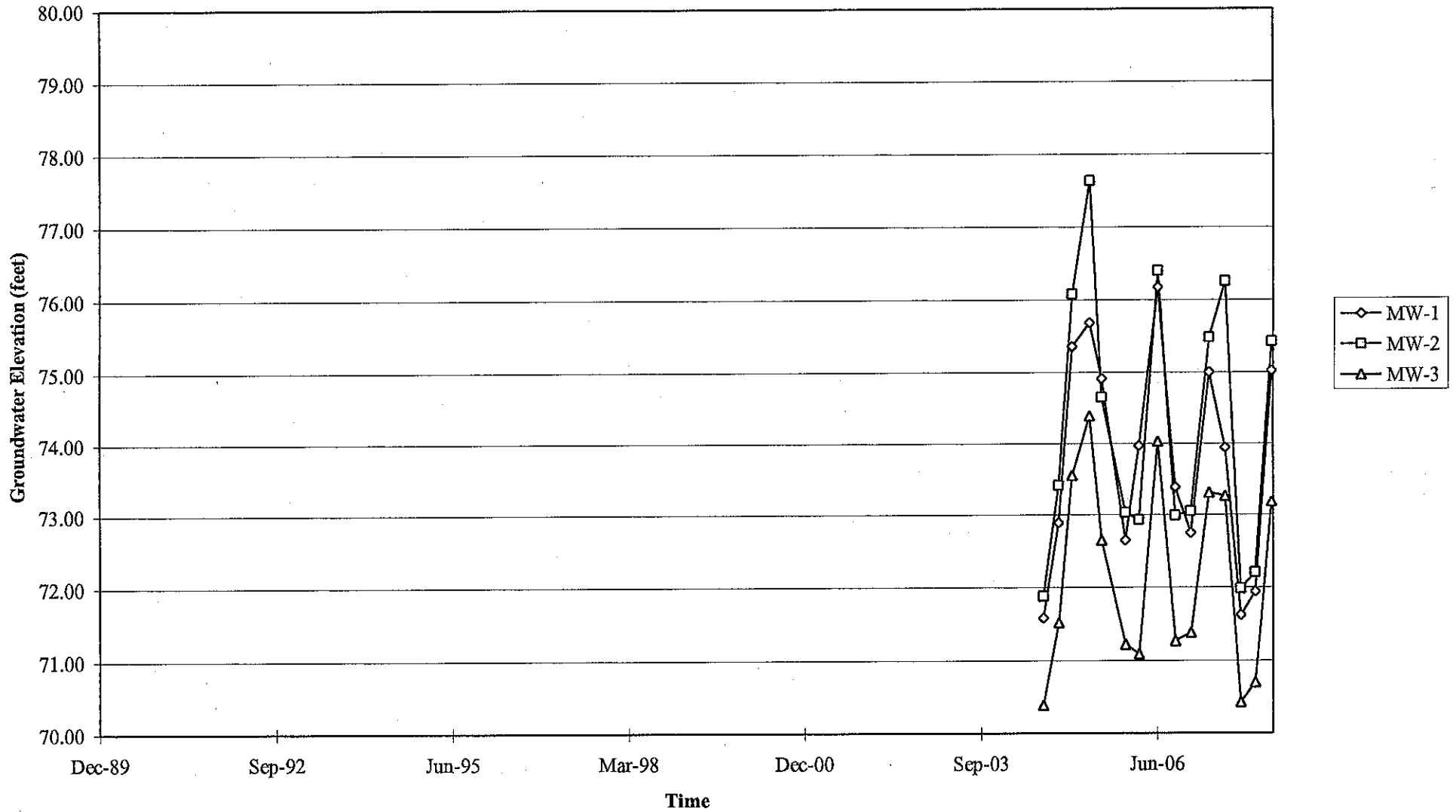
PROJECT: 154771
 FACILITY:
 76 STATION 6129
 3420 35TH AVENUE
 OAKLAND, CALIFORNIA

**DISSOLVED-PHASE MTBE
 CONCENTRATION MAP**
 March 17, 2008

FIGURE 5

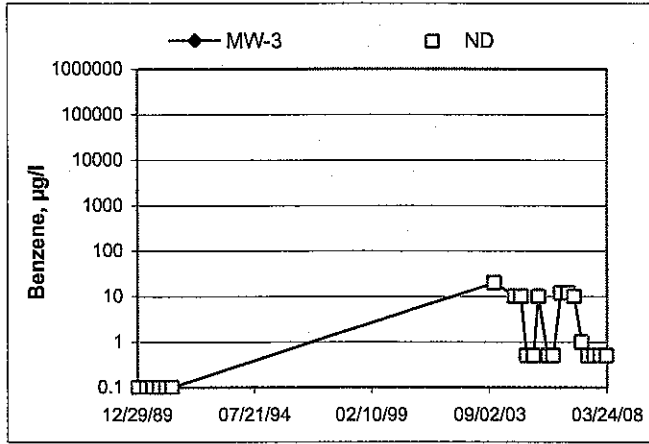
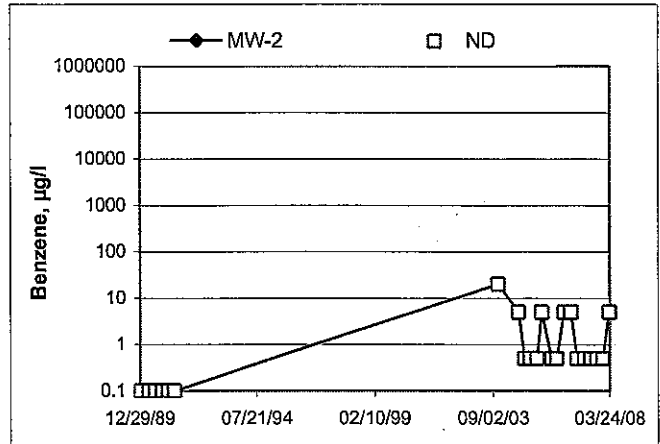
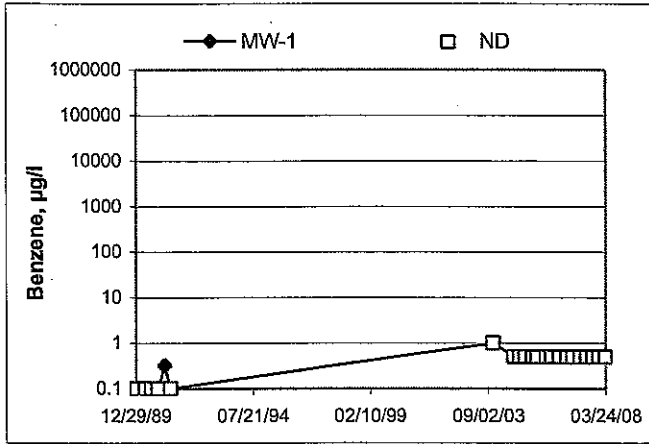
GRAPHS

Groundwater Elevations vs. Time
76 Station 6129



Elevations may have been corrected for apparent changes due to resurvey

Benzene Concentrations vs Time 76 Station 6129



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 care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

After filling, all containers are labeled with project number (or site number), well designation, sample date, sample time, and the sampler's initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

Sequence of Gauging, Purging and Sampling

The sequence in which monitoring activities are conducted 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.

GROUNDWATER SAMPLING FIELD NOTES

Technician: Andrew Vidners

Site: 62A

Project No.: 154771

Date: 03/17/08

Well No. MW-1

Purge Method: Sub

Depth to Water (feet): 27.22

Depth to Product (feet):

Total Depth (feet) 43.40

LPH & Water Recovered (gallons):

Water Column (feet): 16.18

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 30.46

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	D.O.	ORP	Turbidity
1338			3	750.6	20.2	7.45			
			6	801.2	20.3	7.12			
	1345		9	857.4	20.5	6.87			
Static at Time Sampled			Total Gallons Purged		Sample Time				
30.40			9		1348				
Comments:									

Well No. MW-3

Purge Method: AV Sub HB

Depth to Water (feet): ~~24.35~~ 26.82

Depth to Product (feet):

Total Depth (feet) ~~40.82~~ 39.35

LPH & Water Recovered (gallons):

Water Column (feet): 12.53

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 29.33

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	D.O.	ORP	Turbidity
1402			2	631.5	21.7	7.54			
			4	623.3	21.2	7.03			
	1412		6	625.5	20.8	6.85			
Static at Time Sampled			Total Gallons Purged		Sample Time				
28.40			6		1416				
Comments:									

GROUNDWATER SAMPLING FIELD NOTES

Technician: Andrew Vidners

Site: 6129

Project No.: 154771

Date: 03/17/08

Well No. MW-2

Purge Method: Sob

Depth to Water (feet): 26.74

Depth to Product (feet): —

Total Depth (feet) 43.54

LPH & Water Recovered (gallons): —

Water Column (feet): 16.80

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 30.10

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	D.O.	ORP	Turbidity
1428			3	642.7	21.1	6.86			
			6	663.0	20.5	6.72			
	1435		9	710.7	20.7	6.50			
Static at Time Sampled			Total Gallons Purged		Sample Time				
28.69			9		AV 1440 1440				
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)	Conductivity (uS/cm)	Temperature (F, C)	pH	D.O.	ORP	Turbidity
Static at Time Sampled			Total Gallons Purged		Sample Time				
Comments:									



Date of Report: 03/21/2008

Anju Farfan

TRC
21 Technology Drive
Irvine, CA 92618

RE: 6129
BC Work Order: 0803543

Enclosed are the results of analyses for samples received by the laboratory on 03/17/2008 21:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Molly Meyers". The signature is written in a cursive style and is positioned above a horizontal line.

Contact Person: Molly Meyers
Client Service Rep

A handwritten signature in black ink, which is mostly illegible due to its cursive style. It is positioned above a horizontal line.

Authorized Signature

TRC
21 Technology Drive
Irvine, CA 92618

Project: 6129
Project Number: [none]
Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
0803543-01	COC Number:	---	Receive Date:	03/17/2008 21:50	Delivery Work Order:
	Project Number:	6129	Sampling Date:	03/17/2008 13:48	Global ID: T060010465
	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:
0803543-02	COC Number:	---	Receive Date:	03/17/2008 21:50	Delivery Work Order:
	Project Number:	6129	Sampling Date:	03/17/2008 14:16	Global ID: T060010465
	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:
0803543-03	COC Number:	---	Receive Date:	03/17/2008 21:50	Delivery Work Order:
	Project Number:	6129	Sampling Date:	03/17/2008 14:40	Global ID: T060010465
	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:

TRC
 21 Technology Drive
 Irvine, CA 92618

 Project: 6129
 Project Number: [none]
 Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0803543-01		Client Sample Name: 6129, MW-1, MW-1, 3/17/2008 1:48:00PM												
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab-Quals	
Benzene	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Ethylbenzene	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Methyl t-butyl ether	14	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Toluene	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Total Xylenes	ND	ug/L	1.0		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
t-Butyl alcohol	ND	ug/L	10		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Ethanol	ND	ug/L	250		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026	ND		
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026			
Toluene-d8 (Surrogate)	98.1	%	88 - 110 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026			
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 01:02	ken	MS-V12	1	BRC1026			

TRC
21 Technology Drive
Irvine, CA 92618

Project: 6129
Project Number: [none]
Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0803543-02		Client Sample Name: 6129, MW-3, MW-3, 3/17/2008 2:16:00PM												
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals	
Benzene	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
1,2-Dichloroethane	0.65	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Ethylbenzene	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Methyl t-butyl ether	520	ug/L	5.0		EPA-8260	03/18/08	03/21/08 05:30	ken	MS-V12	10	BRC1026	ND	A01	
Toluene	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Total Xylenes	ND	ug/L	1.0		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
t-Butyl alcohol	ND	ug/L	10		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Ethanol	ND	ug/L	250		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND		
Total Purgeable Petroleum Hydrocarbons	220	ug/L	50		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026	ND	A90	
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260	03/18/08	03/21/08 05:30	ken	MS-V12	10	BRC1026			
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026			
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026			
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)		EPA-8260	03/18/08	03/21/08 05:30	ken	MS-V12	10	BRC1026			
4-Bromofluorobenzene (Surrogate)	98.5	%	86 - 115 (LCL - UCL)		EPA-8260	03/18/08	03/21/08 05:30	ken	MS-V12	10	BRC1026			
4-Bromofluorobenzene (Surrogate)	97.5	%	86 - 115 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 00:38	ken	MS-V12	1	BRC1026			

TRC
 21 Technology Drive
 Irvine, CA 92618

 Project: 6129
 Project Number: [none]
 Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0803543-03		Client Sample Name: 6129, MW-2, MW-2, 3/17/2008 2:40:00PM											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
1,2-Dibromoethane	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
1,2-Dichloroethane	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Ethylbenzene	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Methyl t-butyl ether	630	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Toluene	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Total Xylenes	ND	ug/L	10		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
t-Amyl Methyl ether	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
t-Butyl alcohol	ND	ug/L	100		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Diisopropyl ether	18	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Ethanol	ND	ug/L	2500		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Ethyl t-butyl ether	ND	ug/L	5.0		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01
Total Purgeable Petroleum Hydrocarbons	570	ug/L	500		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026	ND	A01,A90
1,2-Dichloroethane-d4 (Surrogate)	100	%	76 - 114 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026		
Toluene-d8 (Surrogate)	99.7	%	88 - 110 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026		
4-Bromofluorobenzene (Surrogate)	97.5	%	86 - 115 (LCL - UCL)		EPA-8260	03/18/08	03/19/08 11:39	ken	MS-V12	10	BRC1026		

TRC
 21 Technology Drive
 Irvine, CA 92618

 Project: 6129
 Project Number: [none]
 Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits	
										RPD	Percent Recovery Lab Quals
Benzene	BRC1026	Matrix Spike	0802904-44	0	23.630	25.000	ug/L		94.5		70 - 130
		Matrix Spike Duplicate	0802904-44	0	24.670	25.000	ug/L	4.3	98.7	20	70 - 130
Toluene	BRC1026	Matrix Spike	0802904-44	0	23.530	25.000	ug/L		94.1		70 - 130
		Matrix Spike Duplicate	0802904-44	0	24.380	25.000	ug/L	3.5	97.5	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BRC1026	Matrix Spike	0802904-44	ND	10.060	10.000	ug/L		101		76 - 114
		Matrix Spike Duplicate	0802904-44	ND	9.8100	10.000	ug/L		98.1		76 - 114
Toluene-d8 (Surrogate)	BRC1026	Matrix Spike	0802904-44	ND	9.8400	10.000	ug/L		98.4		88 - 110
		Matrix Spike Duplicate	0802904-44	ND	9.7900	10.000	ug/L		97.9		88 - 110
4-Bromofluorobenzene (Surrogate)	BRC1026	Matrix Spike	0802904-44	ND	9.8800	10.000	ug/L		98.8		86 - 115
		Matrix Spike Duplicate	0802904-44	ND	10.140	10.000	ug/L		101		86 - 115



TRC
21 Technology Drive
Irvine, CA 92618

Project: 6129
Project Number: [none]
Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Volatile Organic Analysis (EPA Method 8260) Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
Benzene	BRC1026	BRC1026-BS1	LCS	25.500	25.000	0.50	ug/L	102		70 - 130	
Toluene	BRC1026	BRC1026-BS1	LCS	25.230	25.000	0.50	ug/L	101		70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BRC1026	BRC1026-BS1	LCS	9.9600	10.000		ug/L	99.6		76 - 114	
Toluene-d8 (Surrogate)	BRC1026	BRC1026-BS1	LCS	9.8700	10.000		ug/L	98.7		88 - 110	
4-Bromofluorobenzene (Surrogate)	BRC1026	BRC1026-BS1	LCS	9.9300	10.000		ug/L	99.3		86 - 115	

TRC
 21 Technology Drive
 Irvine, CA 92618

Project: 6129
 Project Number: [none]
 Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

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	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
Ethylbenzene	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
Toluene	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
Total Xylenes	BRC1026	BRC1026-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BRC1026	BRC1026-BLK1	ND	ug/L	10		
Diisopropyl ether	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
Ethanol	BRC1026	BRC1026-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BRC1026	BRC1026-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BRC1026	BRC1026-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BRC1026	BRC1026-BLK1	104	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BRC1026	BRC1026-BLK1	98.3	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BRC1026	BRC1026-BLK1	101	%	86 - 115 (LCL - UCL)		

TRC
21 Technology Drive
Irvine, CA 92618

Project: 6129
Project Number: [none]
Project Manager: Anju Farfan

Reported: 03/21/2008 12:05

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- A90 TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.

Submission #: 0803543

Project Code:

TB Batch #

SHIPPING INFORMATION

Federal Express UPS Hand Delivery BC Lab Field Service Other (Specify)

SHIPPING CONTAINER

Ice Chest None Box Other (Specify)

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals: Ice Chest Containers None Comments: Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Ice Chest ID Temperature: 1.5 °C Thermometer ID: 48

Emissivity .97 Container OOA

Date/Time 3-17-8 2230 Analyst Init

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc. Handwritten 'A3' is present in the first three columns of the 40ml VOA VIAL row.

Comments: Sample Numbering Completed By: Date/Time: 3-17-8 2230

BC LABORATORIES, INC.

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

CHAIN OF CUSTODY

080358

Analysis Requested

Bill to: Conoco Phillips/ TRC		Consultant Firm: TRC		MATRIX (GW) Ground-water (S) Soil (WW) Waste-water (SL) Sludge	BTEX/MTBE by 8021B, Gas by 8015 TPH GAS by 8015M TPH DIESEL by 8015 8260 full list w/ oxygenates BTEX/MTBE/OXYS BY 8260B ETHANOL by 8260B TPH - G by GC/MS EDB/EPC by 8260B	Turnaround Time Requested
Address: <i>3420 35th Ave</i>		21 Technology Drive Irvine, CA 92618-2302 Attn: Anju Farfan				
City: <i>Oakland</i>		4-digit site#: <i>6129</i> Workorder # <i>04583-4509118531</i>				
State: CA	Zip:	Project #: <i>154771</i>				
Conoco Phillips Mgr: <i>Bill Borgh</i>		Sampler Name: <i>Andrew Vidners</i>				
Lab#	Sample Description	Field Point Name	Date & Time Sampled			
		<i>MW-1</i>	<i>03/17/08 1348</i>	<i>GW</i>		<i>X</i>
		<i>MW-3</i>	<i>↓</i>	<i>1416</i>	<i>↓</i>	<i>X</i>
		<i>MW-2</i>	<i>↓</i>	<i>1440</i>	<i>↓</i>	<i>X</i>
						<i>X</i>

CHAIN OF CUSTODY
mmms *JHR*

Comments: GLOBAL ID: <i>T0600101465</i>	Relinquished by: (Signature) 	Received by: <i>Pess Dickey</i>	Date & Time <i>03/17/08 1442</i>
	Relinquished by: (Signature) <i>Pess Dickey 3/17/08</i>	Received by: <i>R. Ruy...</i>	Date & Time <i>3-17-08 1910</i>
	Relinquished by: (Signature) <i>R. Ruy... 3-17-08 2145</i>	Received by: 	Date & Time <i>3-17 2150</i>

STATEMENTS

Purge Water Disposal

Non-hazardous groundwater produced during purging and sampling of monitoring was accumulated at TRC's groundwater monitoring facility at Concord, California, for transportation by 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 suspected of containing potentially hazardous material, such as liquid-phase hydrocarbons, was accumulated separately in a drum 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.