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April 25, 2007

**RECEIVED**

2:21 pm, Aug 06, 2007

Alameda County  
Environmental Health

Ms. Donna Drogos, P.E.  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway Suite 250  
Alameda, CA 94502

RE: **Quarterly Monitoring and Summary Report – First Quarter 2007**  
SECOR Project No.: 77CP.01634.03.0303

Dear Ms. Drogos:

On behalf of ConocoPhillips, SECOR International Incorporated (SECOR) is forwarding the quarterly summary report for the following location:

**Service Station**

Former 76 Service Station No. 7124

**Location**

10151 International Boulevard  
Oakland, California

If there are questions or comments regarding this quarterly summary report, please contact me at (916) 861-0400.

Sincerely,  
**SECOR International Incorporated**

  
Sean Coyle  
Project Manager

Attachments: SECOR's *Quarterly Monitoring and Summary Report – First Quarter 2007*.

cc: Mr. Eric Hetrick, ConocoPhillips

## QUARTERLY SUMMARY REPORT First Quarter 2007

Former 76 Service Station No. 7124  
10151 International Boulevard  
Oakland, California

City/County ID #: Oakland  
County: Alameda

### SITE DESCRIPTION

The site is currently an active Royal Gasoline Station located on the northwestern corner of the intersection of International Boulevard and 102nd Avenue in Oakland, California. Site facilities include three underground storage tanks (USTs) and associated piping and fuel dispensers. A detailed site plan is included in TRC's *Quarterly Monitoring Report January through March 2007* dated February 5, 2007 (Attachment 1).

### PREVIOUS ASSESSMENT

On March 22, 2000, SECOR supervised the removal and replacement of product lines and dispensers by Balch Petroleum of Milpitas, California. Soil samples collected from beneath the dispensers and product lines revealed the presence of total petroleum hydrocarbons as gasoline (TPHg) at a maximum concentration of 6,200 milligrams per kilogram (mg/kg), methyl tertiary butyl ether (MtBE) up to 120 mg/kg, and up to 7.4 mg/kg. Excavation and sampling activities were observed and approved by Inspector Gomez of the City of Oakland Fire Services Agency.

On March 27, 2000, SECOR observed the over-excavation of approximately 60 cubic yards of soil from the beneath those portions of the dispensers and product lines where soil samples with elevated concentrations of petroleum hydrocarbons were located. Areas measuring approximately 8-10 feet long by 8-10 feet wide were over-excavated to an approximate depth of 8 feet below ground surface (bgs) in each of these areas. Additional over-excavation in these areas was not possible due to their proximity to the footings of the service station canopy. TPHg was detected in two of the three samples at a concentration of 108 mg/kg; benzene was detected in one of the three samples at 0.162 mg/kg; and MtBE was detected in all three samples at a maximum concentrations of up to 43.8 mg/kg. Lead was not detected at or above laboratory reporting limits in any samples.

During February 2002, SECOR supervised the installation of four on-site groundwater monitoring wells. Prior to well installation, all borings were advanced to 26.5 feet bgs, and subsurface soil samples were collected every five feet. Soil samples were analyzed for gasoline range organics (GRO), benzene, toluene, ethylbenzene, total xylenes (BTEX), and fuel oxygenates via EPA Method 8260B. The maximum reported concentrations were 42 mg/kg GRO, 0.36 mg/kg ethylbenzene, 0.26 mg/kg xylenes, and 1.2 mg/kg MtBE.

## SENSITIVE RECEPTORS

During the third quarter 2004, SECOR completed a ½-mile radius agency receptor survey and obtained an Environmental Data Resources (EDR) radius map for the site from Environmental Data Resources, Incorporated. The agency survey identified two industrial supply wells, three cathodic protection wells, and two wells of unknown type within the search radius. The survey also identified twelve wells of unknown type that could not be located precisely because the records on file with DWR did not include this information. These wells may or may not be located within the search radius. The EDR radius map did not identify any water supply wells within the search radius, but did identify two water supply wells within one mile of the site.

## MONITORING AND SAMPLING

The site has been monitored and sampled since the third quarter 2002. Currently, four wells are monitored quarterly (MW-1 through MW-4). Samples are analyzed for TPHg, BTEX, and the fuel oxygenates tert-butyl alcohol (TBA), MtBE, di-isopropyl ether (DIPE), ethyl tert-butyl ether (EtBE), tert-amyl methyl ether (TAME), and ethanol, as well as, ethylene di-bromide (EDB) by EPA Method 8260B.

## DISCUSSION

During the first quarter 2007, depth to groundwater ranged between 15.55 and 17.57 feet below top of casing (toc), which is slightly lower than historical low levels. Historical groundwater depths have been reported between 15.11 and 17.26 feet below toc. The direction of groundwater flow is toward the west at a gradient of 0.01 foot/foot (Attachment 1).

The highest concentrations of petroleum hydrocarbons and MtBE continue to be detected in on-site wells MW-3 and MW-4. This quarter, the maximum concentrations of TPHg and MtBE were reported to be in well MW-3 at 2,600 µg/L, and 680 µg/L respectively (Attachment 1); however, the reported TPPH concentrations may actually be MTBE, as the BC Laboratories includes MtBE in their TPPH concentrations. Lack of detectable levels of BTEX indicates that TPHg is probably not a major contaminant at the site. The downgradient/crossgradient extent of the dissolved plume remains undefined by the existing monitoring well network.

On October 14, 2004, SECOR submitted a work plan for the installation of monitoring wells offsite to delineate the dissolved phase hydrocarbons in groundwater; however, in a letter dated April 12, 2005, the Alameda County Environmental Health Services (ACEHS) disapproved the work plan stating that it was premature to install more monitoring wells without additional groundwater sampling to determine the location of the plume for optimal well locations. Therefore, an addendum to the October 14, 2004 work plan was submitted on July 22, 2005 and has never been approved.

## **CHARACTERIZATION STATUS**

None of the groundwater samples collected showed detections at or above MCL levels for any BTEX components. The highest concentrations of residual MtBE contamination are localized in the northeastern area of the site in the vicinity of MW-3 and MW-4. The extent of dissolved contamination is undefined in the downgradient (northwest) direction, but MTBE concentrations continue declining, and variable TBA levels in MW-4 may indicate active degradation of MTBE.

## **REMEDIATION STATUS**

Currently, there is no active remediation at this site.

## **RECENT SUBMITTALS/CORRESPONDENCE**

Submitted: *Quarterly Summary and Monitoring Report – Fourth Quarter 2006*, dated January 29, 2007

## **WASTE DISPOSAL SUMMARY**

The volume of purged groundwater generated and disposed of during the quarterly groundwater monitoring event is documented in TRC's *Quarterly Monitoring Report, January through March 2007*, dated February 5, 2007 (Attachment 1).

## **THIS QUARTER ACTIVITIES (First Quarter 2007)**

1. TRC performed quarterly groundwater monitoring and sampling event.
2. SECOR prepared and submitted the fourth quarter 2006 summary report.

## **NEXT QUARTER ACTIVITIES (Second Quarter 2007)**

1. TRC to perform coordinated groundwater monitoring and sampling event.
2. SECOR to prepare and submit quarterly summary and monitoring report.
3. SECOR to discuss site path forward with the agency, including any required revisions to the work plan submitted approximately one year ago. After discussions, if no additional comments to the work plan are forthcoming, the proposed scope of work will be implemented within 60 days of discussion, as it has been well over 60 days since the work plan was first submitted.

**LIMITATIONS**

This report has been prepared for the exclusive use of ConocoPhillips and its representatives as it pertains to the property located at 10151 International Boulevard, Oakland, California. The evaluation of subsurface conditions at the site for the purpose of this investigation is inherently limited due to the number of points of investigation. There are no representations, warranties, or guarantees that the results are representative of the entire site. Data from this report reflects the conditions at locations at a specified time. No other interpretation, representations, warranties, guarantees, express or implied, are included or intended in the report findings. SECOR makes no warranties or guarantees for the groundwater monitoring report (Attachment 1) prepared by TRC.

Sincerely,  
**SECOR International Incorporated**



Ed Simonis P.G.  
 Senior Geologist




Wesley Snyder  
 Staff Scientist

Attachment 1: TRC's *Quarterly Monitoring Report – January through March 2007*, dated February 5, 2007

**ATTACHMENT 1**  
**TRC'S QUARTERLY MONITORING REPORT**  
***JANUARY THROUGH MARCH 2007***

Quarterly Monitoring and Summary Report

76 Service Station No. 7124

10151 International Boulevard

Oakland, California

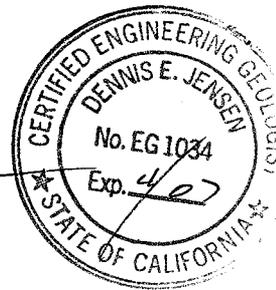
**QUARTERLY MONITORING REPORT  
JANUARY THROUGH MARCH 2007**

76 STATION 7124  
10151 International Boulevard  
Oakland, California

Prepared For:

Mr. Eric Hetrick  
CONOCOPHILLIPS COMPANY  
76 Broadway  
Sacramento, California 95818

By:



Senior Project Geologist, Irvine Operations  
February 5, 2007



### 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 MTBE 8260B Concentrations vs. Time
Field Activities	General Field Procedures Field Monitoring Data Sheet - 01/12/07 Groundwater Sampling Field Notes - 01/12/07
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations



# 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 resurvey

### REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 7124 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 7124**

**Current Event**

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

**Historic Data**

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

**Table 1**  
**CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**January 12, 2007**  
**76 Station 7124**

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
<b>MW-1</b>														
01/12/07	37.37	15.55	0.00	21.82	0.56	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
<b>MW-2</b>														
01/12/07	37.87	17.07	0.00	20.80	0.08	--	230	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	4.3	
<b>MW-3</b>														
01/12/07	37.72	16.85	0.00	20.87	0.51	--	2600	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	680	
<b>MW-4</b>														
01/12/07	38.36	17.57	0.00	20.79	0.51	--	820	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	28	

**Table 1 a**  
**ADDITIONAL CURRENT ANALYTICAL RESULTS**  
**76 Station 7124**

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)
<b>MW-1</b>							
01/12/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
<b>MW-2</b>							
01/12/07	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
<b>MW-3</b>							
01/12/07	43	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
<b>MW-4</b>							
01/12/07	72	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**April 2002 Through January 2007**  
**76 Station 7124**

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)	
<b>MW-1</b>														
04/08/02	37.37	14.27	0.00	23.10	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<2.0	
07/28/02	37.37	15.88	0.00	21.49	-1.61	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/03/02	37.37	16.75	0.00	20.62	-0.87	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
01/24/03	37.37	13.94	0.00	23.43	2.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
04/02/03	37.37	14.99	0.00	22.38	-1.05	--	460	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
07/01/03	37.37	15.48	0.00	21.89	-0.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/02/03	37.37	16.68	0.00	20.69	-1.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
01/09/04	37.37	13.79	0.00	23.58	2.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1	--	ND<2	
04/26/04	37.37	15.21	0.00	22.16	-1.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
07/22/04	37.37	16.43	0.00	20.94	-1.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/29/04	37.37	16.14	0.00	21.23	0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
01/12/05	37.37	12.83	0.00	24.54	3.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
06/20/05	37.37	14.38	0.00	22.99	-1.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
09/23/05	37.37	15.92	0.00	21.45	-1.54	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/13/05	37.37	16.09	0.00	21.28	-0.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
03/24/06	37.37	11.85	0.00	25.52	4.24	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
05/30/06	37.37	13.30	0.00	24.07	-1.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
08/22/06	37.37	15.11	0.00	22.26	-1.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
10/31/06	37.37	16.11	0.00	21.26	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
01/12/07	37.37	15.55	0.00	21.82	0.56	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
<b>MW-2</b>														
04/08/02	37.87	15.86	0.00	22.01	--	4400	--	ND<2.5	ND<2.5	6.4	ND<2.5	380	490	
07/28/02	37.87	17.28	0.00	20.59	-1.42	--	3200	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	170	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**April 2002 Through January 2007**  
**76 Station 7124**

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
<b>MW-2 continued</b>														
11/03/02	37.87	18.03	0.00	19.84	-0.75	--	3800	ND<5.0	ND<5.0	ND<5.0	ND<10	--	72	
01/24/03	37.87	15.59	0.00	22.28	2.44	--	410	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	490	
04/02/03	37.87	16.50	0.00	21.37	-0.91	--	1000	ND<5.0	ND<5.0	ND<5.0	ND<10	--	180	
07/01/03	37.87	16.94	0.00	20.93	-0.44	--	1900	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	120	
10/02/03	37.87	17.93	0.00	19.94	-0.99	--	6900	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	32	
01/09/04	37.87	15.42	0.00	22.45	2.51	--	1000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	300	
04/26/04	37.87	--	--	--	--	--	--	--	--	--	--	--	--	Covered with asphalt
07/22/04	37.87	--	--	--	--	--	--	--	--	--	--	--	--	Covered with asphalt
10/29/04	37.87	--	0.00	--	--	--	--	--	--	--	--	--	--	Well is paved over.
01/12/05	37.87	--	--	--	--	--	--	--	--	--	--	--	--	Well was paved over.
06/20/05	37.87	15.94	0.00	21.93	--	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	46	
09/23/05	37.87	17.29	0.00	20.58	-1.35	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	10	
12/13/05	37.87	17.41	0.00	20.46	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	11	
03/24/06	37.87	13.77	0.00	24.10	3.64	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	15	
05/30/06	37.87	15.16	0.00	22.71	-1.39	--	120	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.6	
08/22/06	37.87	16.49	0.00	21.38	-1.33	--	81	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	3.0	
10/31/06	37.87	17.15	0.00	20.72	-0.66	--	93	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.0	
01/12/07	37.87	17.07	0.00	20.80	0.08	--	230	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	4.3	
<b>MW-3</b>														
04/08/02	37.72	15.86	0.00	21.86	--	8700	--	65	ND<25	400	ND<25	6500	8300	
07/28/02	37.72	17.22	0.00	20.50	-1.36	--	4500	ND<25	ND<25	ND<25	ND<50	--	1100	
11/03/02	37.72	17.90	0.00	19.82	-0.68	--	25000	ND<5.0	ND<5.0	25	ND<10	--	470	
01/24/03	37.72	15.57	0.00	22.15	2.33	--	6000	ND<25	ND<25	94	ND<50	--	10000	
04/02/03	37.72	16.45	0.00	21.27	-0.88	--	130000	ND<100	ND<100	ND<100	ND<200	--	4400	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**April 2002 Through January 2007**  
**76 Station 7124**

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
<b>MW-3 continued</b>														
07/01/03	37.72	16.88	0.00	20.84	-0.43	--	9400	ND<10	ND<10	ND<10	ND<20	--	2200	
10/02/03	37.72	17.85	0.00	19.87	-0.97	--	73000	ND<50	ND<50	ND<50	ND<100	--	460	
01/09/04	37.72	15.31	0.00	22.41	2.54	--	8700	ND<25	ND<25	98	ND<50	--	3800	
04/26/04	37.72	16.62	0.00	21.10	-1.31	--	6700	ND<25	ND<25	ND<25	ND<50	--	3900	
07/22/04	37.72	17.62	0.00	20.10	-1.00	--	13000	ND<25	ND<25	ND<25	ND<50	--	980	
10/29/04	37.72	17.29	0.00	20.43	0.33	--	4600	ND<5.0	ND<5.0	13	ND<10	--	640	
01/12/05	37.72	14.64	0.00	23.08	2.65	--	6100	0.88	0.99	30	2.2	--	6900	
06/20/05	37.72	15.91	0.00	21.81	-1.27	--	1900	ND<0.50	0.21J	0.52	0.46J	--	960	
09/23/05	37.72	17.20	0.00	20.52	-1.29	--	2400	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	160	
12/13/05	37.72	17.32	0.00	20.40	-0.12	--	2100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	340	
03/24/06	37.72	13.86	0.00	23.86	3.46	--	2200	ND<5.0	ND<5.0	ND<5.0	ND<10	--	970	
05/30/06	37.72	15.69	0.00	22.03	-1.83	--	1500	ND<12	ND<12	ND<12	ND<25	--	760	
08/22/06	37.72	16.51	0.00	21.21	-0.82	--	1900	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	160	
10/31/06	37.72	17.36	0.00	20.36	-0.85	--	2200	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	58	
01/12/07	37.72	16.85	0.00	20.87	0.51	--	2600	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	680	
<b>MW-4</b>														
04/08/02	38.36	16.59	0.00	21.77	--	13000	--	ND<5.0	ND<5.0	28	ND<5.0	790	980	
07/28/02	38.36	17.93	0.00	20.43	-1.34	--	18000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	170	
11/03/02	38.36	18.66	0.00	19.70	-0.73	--	220	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.7	
01/24/03	38.36	16.27	0.00	22.09	2.39	--	ND<1000	ND<10	ND<10	ND<10	ND<20	--	1000	
04/02/03	38.36	17.19	0.00	21.17	-0.92	--	130000	ND<100	ND<100	ND<100	ND<200	--	ND<400	
07/01/03	38.36	17.61	0.00	20.75	-0.42	--	15000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	170	
10/02/03	38.36	18.58	0.00	19.78	-0.97	--	7100	ND<10	ND<10	ND<10	ND<20	--	70	
01/09/04	38.36	16.15	0.00	22.21	2.43	--	18000	ND<10	ND<10	ND<10	ND<20	--	530	

**Table 2**  
**HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS**  
**April 2002 Through January 2007**  
**76 Station 7124**

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethylbenzene	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)	
<b>MW-4 continued</b>														
04/26/04	38.36	17.20	0.00	21.16	-1.05	--	6500	ND<10	ND<10	ND<10	ND<20	--	240	
07/22/04	38.36	18.34	0.00	20.02	-1.14	--	18000	ND<10	ND<10	ND<10	ND<20	--	48	
10/29/04	38.36	18.13	0.00	20.23	0.21	--	2700	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	76	
01/12/05	38.36	15.22	0.00	23.14	2.91	--	1300	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	620	
06/20/05	38.36	16.63	0.00	21.73	-1.41	--	980	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	110	
09/23/05	38.36	17.93	0.00	20.43	-1.30	--	1500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	34	
12/13/05	38.36	18.04	0.00	20.32	-0.11	--	3900	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	36	
03/24/06	38.36	14.48	0.00	23.88	3.56	--	1500	ND<12	ND<12	ND<12	ND<25	--	200	
05/30/06	38.36	15.79	0.00	22.57	-1.31	--	1200	ND<2.5	ND<2.5	ND<2.5	ND<5.0	--	130	
08/22/06	38.36	17.26	0.00	21.10	-1.47	--	980	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	33	
10/31/06	38.36	18.08	0.00	20.28	-0.82	--	1300	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	10	
01/12/07	38.36	17.57	0.00	20.79	0.51	--	820	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	28	

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 7124**

Date Sampled	TBA	Ethanol (8015B)	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
<b>MW-1</b>								
07/28/02	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
11/03/02	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/24/03	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
04/02/03	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
07/01/03	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
10/02/03	ND<100	--	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/09/04	ND<100	--	ND<500	ND<2	ND<2.0	ND<2	ND<2	ND<2
04/26/04	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
07/22/04	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
10/29/04	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
01/12/05	ND<5.0	--	ND<50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50
06/20/05	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/23/05	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/24/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
05/30/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
08/22/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/31/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
<b>MW-2</b>								
04/08/02	ND<2000	ND<10000	--	ND<40	ND<40	ND<40	ND<40	ND<40
07/28/02	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10
11/03/02	ND<1000	ND<5000	--	ND<20	ND<20	ND<20	ND<20	ND<20
01/24/03	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10
04/02/03	ND<1000	ND<5000	--	ND<20	ND<20	ND<20	ND<20	ND<20
07/01/03	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 7124**

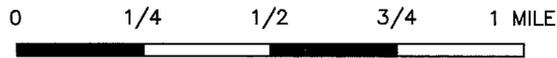
Date Sampled	TBA	Ethanol (8015B)	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
<b>MW-2 continued</b>								
10/02/03	ND<100	--	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/09/04	ND<500	--	ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10
06/20/05	25	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/23/05	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/24/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
05/30/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
08/22/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/31/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
<b>MW-3</b>								
10/02/03	ND<10000	--	ND<50000	ND<200	ND<200	ND<200	ND<200	ND<200
01/09/04	ND<5000	--	ND<25000	ND<100	ND<100	ND<100	ND<100	ND<100
04/26/04	ND<250	--	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25
07/22/04	ND<250	--	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25
10/29/04	ND<50	--	ND<500	ND<5.0	ND<5.0	ND<10	ND<5.0	ND<5.0
01/12/05	1300	--	ND<2500	ND<25	ND<25	ND<50	ND<25	ND<25
06/20/05	39	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.31J
09/23/05	ND<10	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	ND<50	--	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
03/24/06	ND<100	--	ND<2500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
05/30/06	ND<250	--	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12
08/22/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/31/06	ND<10	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	43	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

**Table 2 a**  
**ADDITIONAL HISTORIC ANALYTICAL RESULTS**  
**76 Station 7124**

Date Sampled	TBA	Ethanol (8015B)	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME
	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
<b>MW-4 continued</b>								
04/08/02	ND<5000	ND<25000	--	ND<100	ND<100	ND<100	ND<100	ND<100
07/28/02	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10
11/03/02	ND<100	ND<500	--	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
01/24/03	ND<2000	ND<10000	--	ND<40	ND<40	ND<40	ND<40	ND<40
04/02/03	ND<20000	ND<100000	--	ND<400	ND<400	ND<400	ND<400	ND<400
07/01/03	ND<500	ND<2500	--	ND<10	ND<10	ND<10	ND<10	ND<10
10/02/03	ND<2000	--	ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40
01/09/04	ND<2000	--	ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40
04/26/04	430	--	ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10
07/22/04	ND<100	--	ND<1000	ND<10	ND<10	ND<20	ND<10	ND<10
10/29/04	63	--	ND<250	ND<2.5	ND<2.5	ND<5.0	ND<2.5	ND<2.5
01/12/05	1300	--	ND<250	ND<10	ND<2.5	ND<5.0	ND<2.5	ND<2.5
06/20/05	580	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
09/23/05	92	--	ND<1000	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
12/13/05	50	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
03/24/06	1900	--	ND<6200	ND<12	ND<12	ND<12	ND<12	ND<12
05/30/06	ND<50	--	ND<1200	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
08/22/06	150	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
10/31/06	43	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
01/12/07	72	--	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

# FIGURES

PS = 1:1 L:\VICINITY MAP S\7124vm.dwg Feb 02, 2007 - 12:58pm lwinters



SCALE 1:24,000



**SOURCE:**

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



QUADRANGLE  
LOCATION

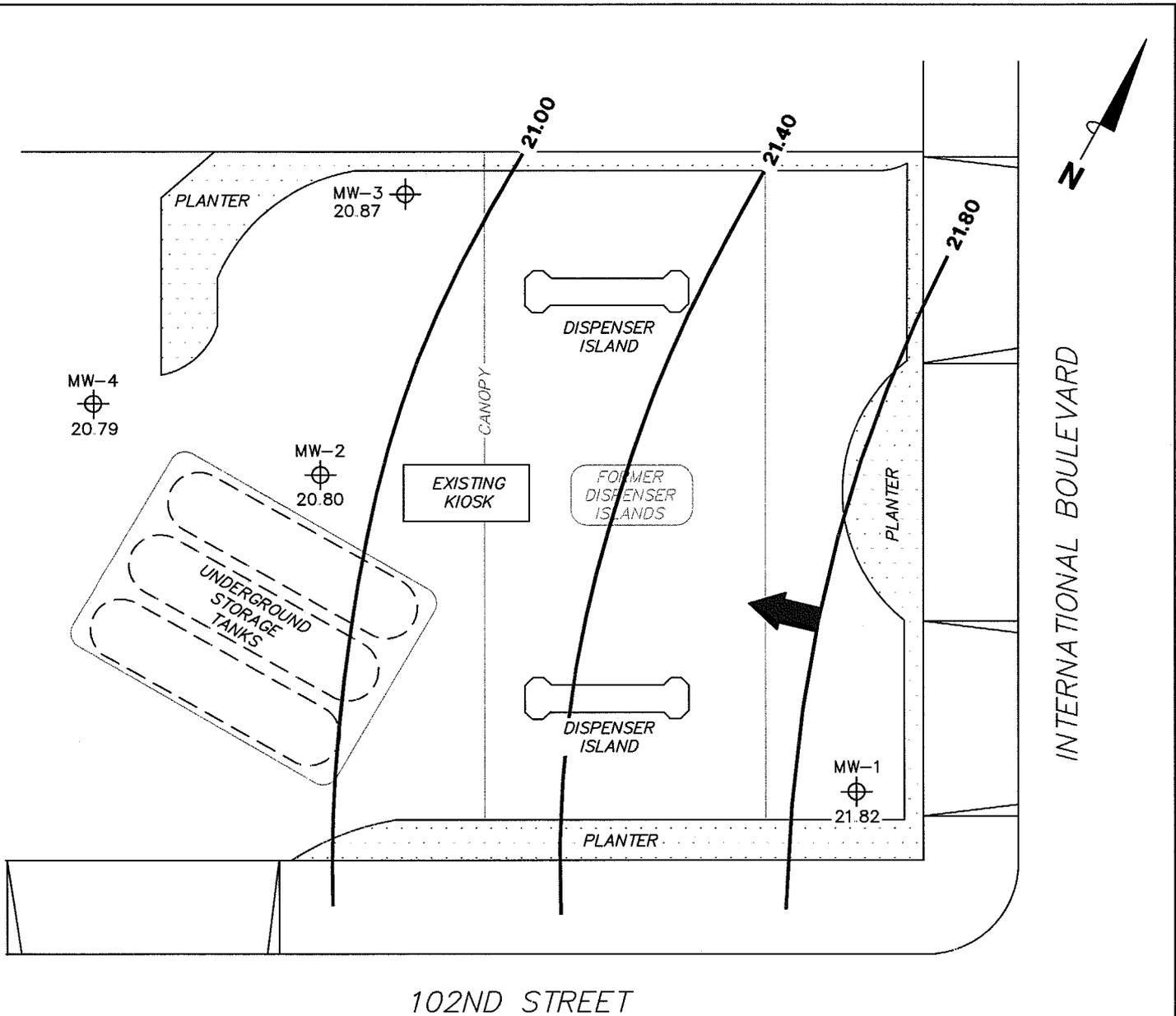
**VICINITY MAP**

76 Station 7124  
10151 International Boulevard  
Oakland, California



**FIGURE 1**

PS=1:1 7124-003 L:\Graphics\Projects\Number\20-xxxx\20-0400(UnocalQMS)\x-7000\7124+7124QMS.DWG Feb 02, 2007 - 1:01pm lwinters



**NOTES:**

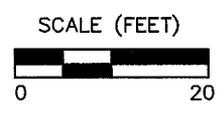
Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level.

**LEGEND**

- MW-4 Monitoring Well with Groundwater Elevation (feet)
- 21.80 Groundwater Elevation Contour
- General Direction of Groundwater Flow

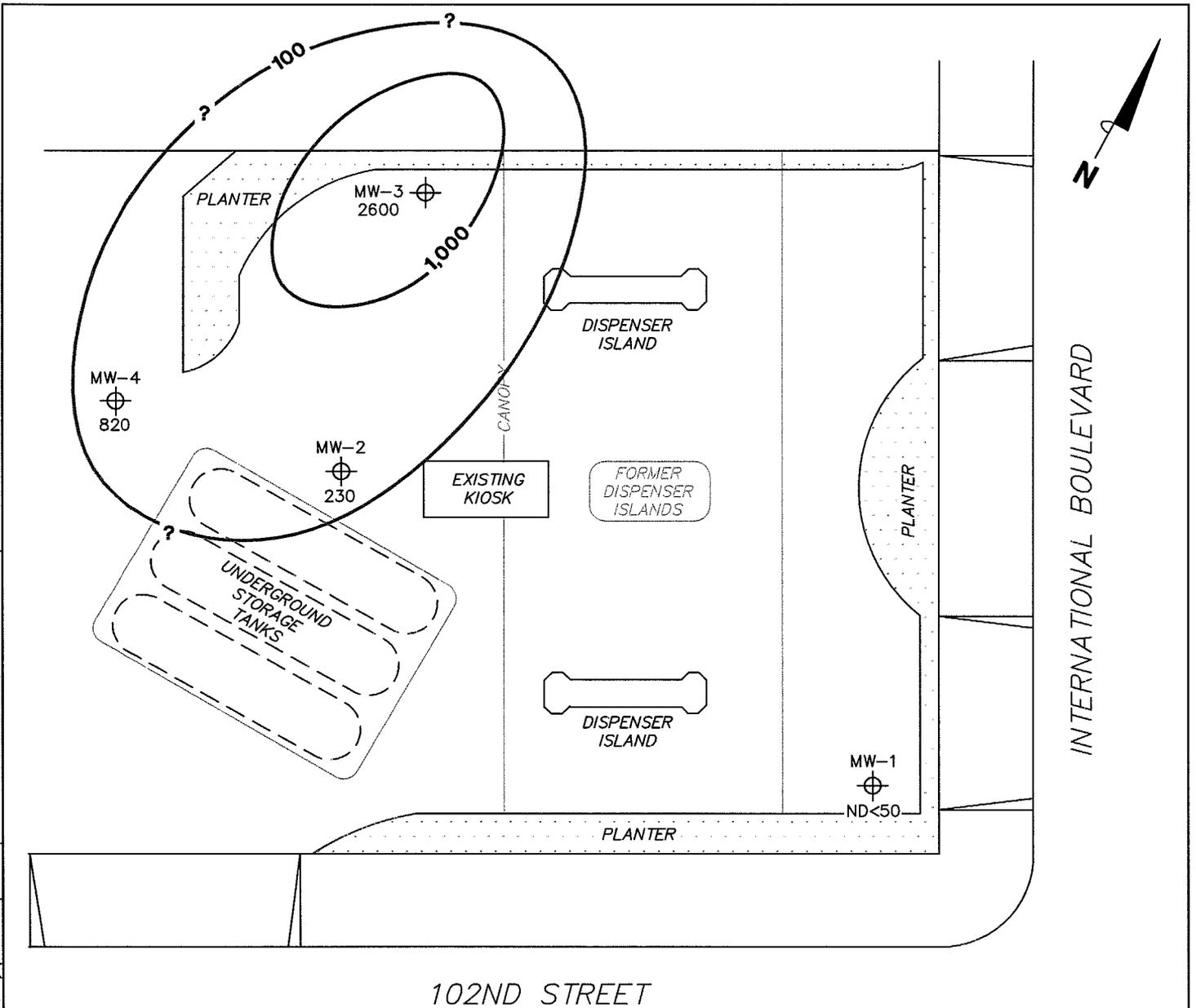
**GROUNDWATER ELEVATION CONTOUR MAP**  
January 12, 2007

76 Station 7124  
10151 International Boulevard  
Oakland, California



**FIGURE 2**

PS=1:1 7124-003 L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-7000\7124++\7124QMS.DWG Feb 02, 2007 - 12:59pm lwinters



**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.

LEGEND	
MW-4 ⊕	Monitoring Well with Dissolved-Phase TPH-G (GC/MS) Concentration (µg/l)
-1,000-	Dissolved-Phase TPH-G (GC/MS) Contour (µg/l)

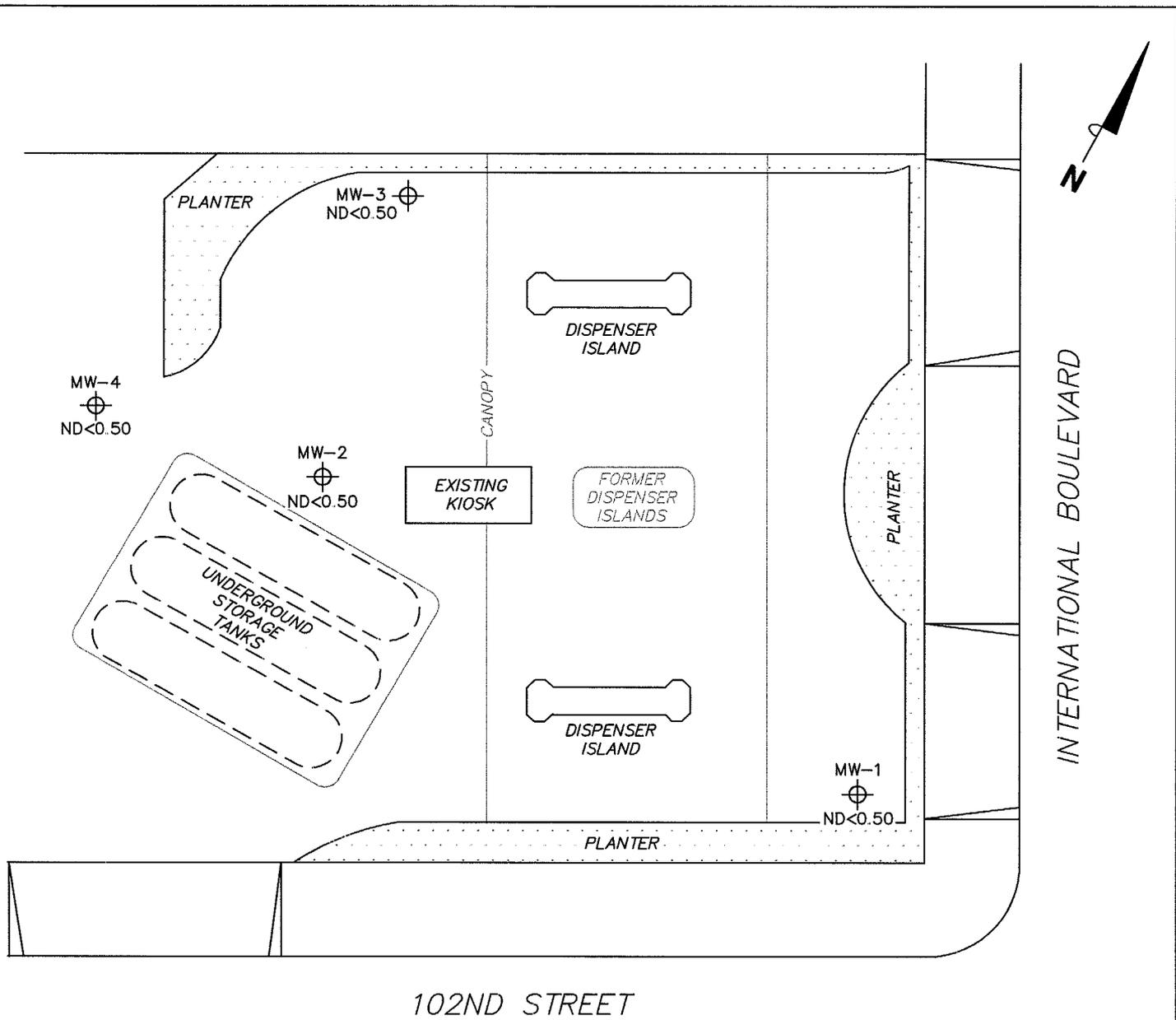
**DISSOLVED-PHASE  
 TPH-G (GC/MS)  
 CONCENTRATION MAP  
 January 12, 2007**

76 Station 7124  
 10151 International Boulevard  
 Oakland, California



**FIGURE 3**

PS=1:1 7124-003 L:\Graphics\Projects\Number\20-xxxx\20-0400(UnocalQMS)\x-7000\7124+7124QMS.DWG Feb 02, 2007 - 12:59pm lwinters



102ND STREET

INTERNATIONAL BOULEVARD



**NOTES:**

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

**LEGEND**

MW-4  Monitoring Well with Dissolved-Phase Benzene Concentration (µg/l)

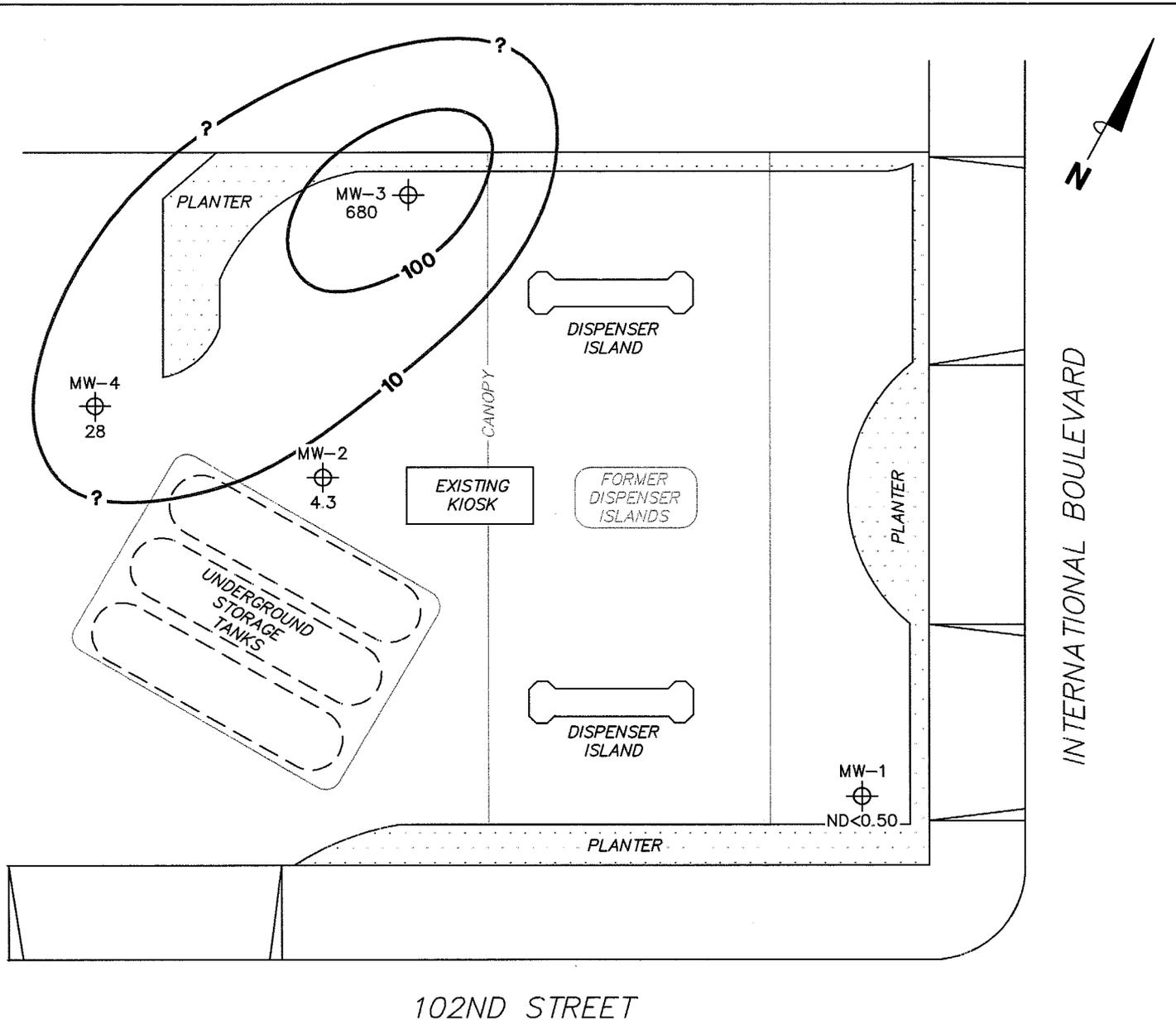
**DISSOLVED-PHASE BENZENE CONCENTRATION MAP**  
January 12, 2007

76 Station 7124  
10151 International Boulevard  
Oakland, California



**FIGURE 4**

PS=1:1 7124-003 L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-7000\7124+7124QMS.DWG Feb 02, 2007 - 12:59pm lwinters



**NOTES:**

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. Results obtained using EPA Method 8260B.

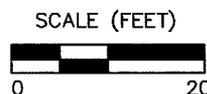
**LEGEND**

MW-4 ⊕ Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l)

—100— Dissolved-Phase MTBE Contour (µg/l)

**DISSOLVED-PHASE MTBE CONCENTRATION MAP**  
**January 12, 2007**

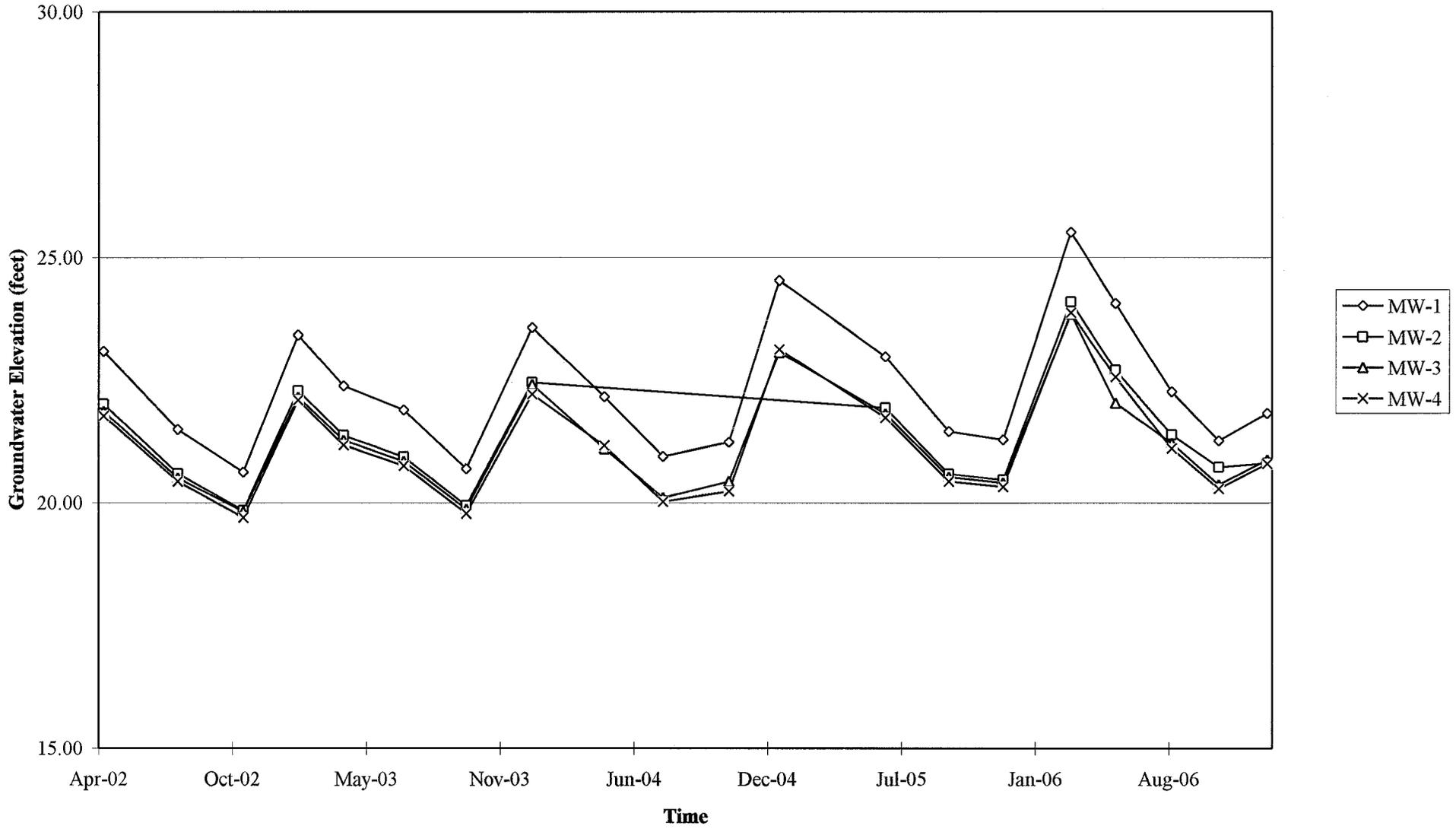
76 Station 7124  
 10151 International Boulevard  
 Oakland, California



**FIGURE 5**

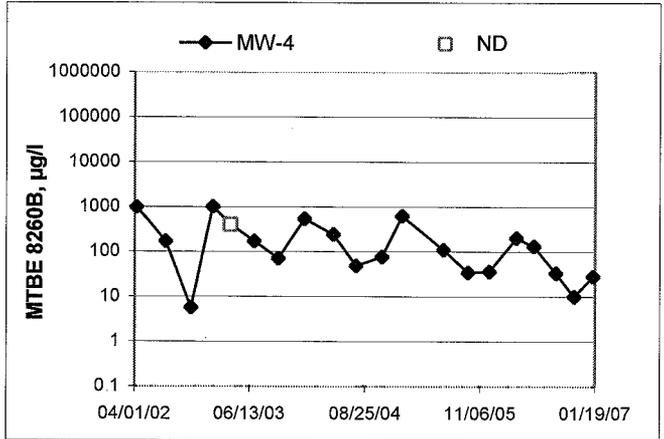
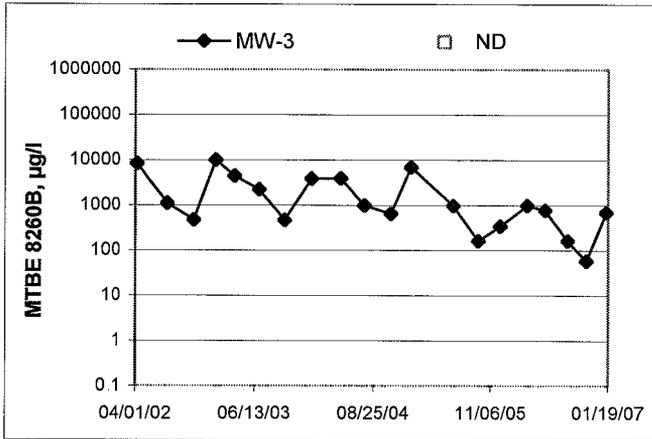
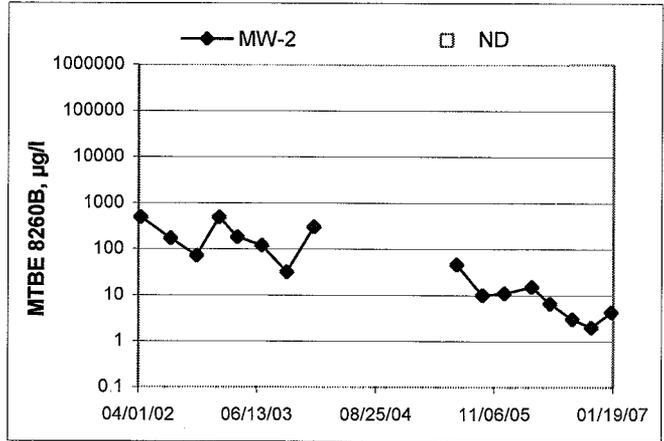
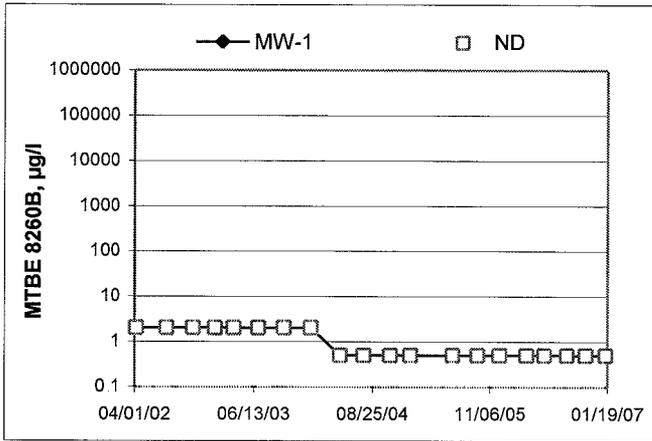
# GRAPHS

Groundwater Elevations vs. Time  
76 Station 7124



Elevations may have been corrected for apparent changes due to resurvey

**MTBE 8260B Concentrations vs Time**  
76 Station 7124



# 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 are specified on the TSR. In general, wells are gauged beginning with the least affected well and ending with the well that has the highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected to the most-affected well.

## **Decontamination**

In order to reduce the possibility of cross contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated to a particular wells, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

## **Exceptions**

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



# GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: 7124

Project No.: 41060001

Date: 01-12-07

Well No. MW-4

Purge Method: DIA

Depth to Water (feet): 17.57

Depth to Product (feet): —

Total Depth (feet): 24.95

LPH & Water Recovered (gallons): —

Water Column (feet): 7.38

Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 19.04

1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F/C)	pH	D.O.	ORP	Turbidity
<u>1224</u>			<u>5</u>	<u>542.4</u>	<u>17.4</u>	<u>7.43</u>			
			<u>10</u>	<u>551.4</u>	<u>18.3</u>	<u>7.12</u>			
	<u>1228</u>		<u>15</u>	<u>552.8</u>	<u>18.8</u>	<u>6.92</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>17.80</u>			<u>15</u>			<u>1235</u>			
Comments:									

Well No. MW-3

Purge Method: DIA

Depth to Water (feet): 16.85

Depth to Product (feet): —

Total Depth (feet): 25.15

LPH & Water Recovered (gallons): —

Water Column (feet): 8.3

Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 18.51

1 Well Volume (gallons): 6

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F/C)	pH	D.O.	ORP	Turbidity
<u>1246</u>			<u>6</u>	<u>573.4</u>	<u>16.0</u>	<u>6.90</u>			
			<u>12</u>	<u>577.6</u>	<u>16.7</u>	<u>6.68</u>			
	<u>1250</u>		<u>18</u>	<u>586.5</u>	<u>17.8</u>	<u>6.67</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>17.10</u>			<u>18</u>			<u>1255</u>			
Comments:									

# GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: 7124

Project No.: 41060001

Date: 01-12-07

Well No. MW-1

Purge Method: DIA

Depth to Water (feet): 15.55

Depth to Product (feet):         

Total Depth (feet): 24.75

LPH & Water Recovered (gallons):         

Water Column (feet): 9.2

Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 17.39

1 Well Volume (gallons): 6

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F) <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">C</span>	pH	D.O.	ORP	Turbidity
1140			6	470.3	16.5	6.87			
			12	489.2	15.3	6.91			
	1144		18	504.8	17.1	6.80			
Static at Time Sampled			Total Gallons Purged			Sample Time			
15.82			18			1150			
Comments:									

Well No. MW-2

Purge Method: DIA

Depth to Water (feet): 17.07

Depth to Product (feet):         

Total Depth (feet): 25.30

LPH & Water Recovered (gallons):         

Water Column (feet): 8.23

Casing Diameter (Inches): 4"

80% Recharge Depth(feet): 18.71

1 Well Volume (gallons): 6

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F) <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">C</span>	pH	D.O.	ORP	Turbidity
1203			6	522.5	17.4	7.16			
			12	533.7	18.3	6.94			
	1206		18	537.9	18.5	6.83			
Static at Time Sampled			Total Gallons Purged			Sample Time			
17.22			18			1215			
Comments:									



Date of Report: 01/22/2007

Anju Farfan

TRC Alton Geoscience  
21 Technology Drive  
Irvine, CA 92618-2302

RE: 7124  
BC Work Order: 0700609

Enclosed are the results of analyses for samples received by the laboratory on 01/16/2007 21:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Vanessa Hooker", written over a horizontal line.

Contact Person: Vanessa Hooker  
Client Service Rep

A handwritten signature in black ink, consisting of several sweeping strokes, written over a horizontal line.

Authorized Signature

TRC Alton Geoscience  
 21 Technology Drive  
 Irvine, CA 92618-2302

Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
0700609-01	<b>COC Number:</b> --- <b>Project Number:</b> 7124 <b>Sampling Location:</b> MW-1 <b>Sampling Point:</b> MW-1 <b>Sampled By:</b> Joe of TRCI	<b>Receive Date:</b> 01/16/2007 21:40 <b>Sampling Date:</b> 01/12/2007 11:50 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order:</b> Global ID: T0600173591 Matrix: W Sample QC Type (SACode): CS Cooler ID:
0700609-02	<b>COC Number:</b> --- <b>Project Number:</b> 7124 <b>Sampling Location:</b> MW-2 <b>Sampling Point:</b> MW-2 <b>Sampled By:</b> Joe of TRCI	<b>Receive Date:</b> 01/16/2007 21:40 <b>Sampling Date:</b> 01/12/2007 12:15 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order:</b> Global ID: T0600173591 Matrix: W Sample QC Type (SACode): CS Cooler ID:
0700609-03	<b>COC Number:</b> --- <b>Project Number:</b> 7124 <b>Sampling Location:</b> MW-4 <b>Sampling Point:</b> MW-4 <b>Sampled By:</b> Joe of TRCI	<b>Receive Date:</b> 01/16/2007 21:40 <b>Sampling Date:</b> 01/12/2007 12:35 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order:</b> Global ID: T0600173591 Matrix: W Sample QC Type (SACode): CS Cooler ID:
0700609-04	<b>COC Number:</b> --- <b>Project Number:</b> 7124 <b>Sampling Location:</b> MW-3 <b>Sampling Point:</b> MW-3 <b>Sampled By:</b> Joe of TRCI	<b>Receive Date:</b> 01/16/2007 21:40 <b>Sampling Date:</b> 01/12/2007 12:55 <b>Sample Depth:</b> --- <b>Sample Matrix:</b> Water	<b>Delivery Work Order:</b> Global ID: T0600173591 Matrix: W Sample QC Type (SACode): CS Cooler ID:

TRC Alton Geoscience  
 21 Technology Drive  
 Irvine, CA 92618-2302

 Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0700609-01		Client Sample Name: 7124, MW-1, MW-1, 1/12/2007 11:50:00AM, Joe											
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	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878		
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878		
Ethylbenzene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Toluene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Total Xylenes	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
t-Butyl alcohol	ND	ug/L	10		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Ethanol	ND	ug/L	250		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878	ND	
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878		
Toluene-d8 (Surrogate)	99.6	%	88 - 110 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878		
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 03:05	DKC	MS-V12	1	BQA0878		

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 21 Technology Drive  
 Irvine, CA 92618-2302

 Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 0700609-02	<b>Client Sample Name:</b> 7124, MW-2, MW-2, 1/12/2007 12:15:00PM, Joe
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Constituent	Result	Units	PQL	MDL	Method	Prep	Run		Analyst	Instru- ment ID	Dilution	QC	MB	Lab
						Date	Date/Time	Batch ID				Bias	Quals	
Benzene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878		
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878		
Ethylbenzene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Methyl t-butyl ether	4.3	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Toluene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Total Xylenes	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
t-Butyl alcohol	ND	ug/L	10		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Ethanol	ND	ug/L	250		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
Total Purgeable Petroleum Hydrocarbons	230	ug/L	50		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878	ND	
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL)		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878		
Toluene-d8 (Surrogate)	99.1	%	88 - 110 (LCL - UCL)		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878		
4-Bromofluorobenzene (Surrogate)	114	%	86 - 115 (LCL - UCL)		EPA-8260	01/17/07	01/18/07	03:30	DKC	MS-V12	1	BQA0878		

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 Irvine, CA 92618-2302

 Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0700609-03		Client Sample Name:	7124, MW-4, MW-4, 1/12/2007 12:35:00PM, Joe										
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	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878			
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878			
Ethylbenzene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Methyl t-butyl ether	28	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Toluene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Total Xylenes	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
t-Butyl alcohol	72	ug/L	10		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Ethanol	ND	ug/L	250		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
Total Purgeable Petroleum Hydrocarbons	820	ug/L	50		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878	ND		
1,2-Dichloroethane-d4 (Surrogate)	109	%	76 - 114 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878			
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878			
4-Bromofluorobenzene (Surrogate)	136	%	86 - 115 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 03:56	DKC	MS-V12	1	BQA0878		S09	

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 Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0700609-04												
Client Sample Name: 7124, MW-3, MW-3, 1/12/2007 12:55:00PM, Joe													
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	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878		
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878		
Ethylbenzene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
Methyl t-butyl ether	680	ug/L	5.0		EPA-8260	01/17/07	01/19/07 17:46	SDU	MS-V12	10	BQA0878	ND	A01
Toluene	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
Total Xylenes	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
t-Butyl alcohol	43	ug/L	10		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
Ethanol	ND	ug/L	250		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878	ND	
Total Purgeable Petroleum Hydrocarbons	2600	ug/L	500		EPA-8260	01/17/07	01/19/07 17:46	SDU	MS-V12	10	BQA0878	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	111	%	76 - 114 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878		
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260	01/17/07	01/19/07 17:46	SDU	MS-V12	10	BQA0878		
Toluene-d8 (Surrogate)	103	%	88 - 110 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878		
Toluene-d8 (Surrogate)	99.9	%	88 - 110 (LCL - UCL)		EPA-8260	01/17/07	01/19/07 17:46	SDU	MS-V12	10	BQA0878		
4-Bromofluorobenzene (Surrogate)	102	%	86 - 115 (LCL - UCL)		EPA-8260	01/17/07	01/19/07 17:46	SDU	MS-V12	10	BQA0878		
4-Bromofluorobenzene (Surrogate)	138	%	86 - 115 (LCL - UCL)		EPA-8260	01/17/07	01/18/07 04:22	DKC	MS-V12	1	BQA0878		S09

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 Irvine, CA 92618-2302

Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## 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	BQA0878	Matrix Spike	0700515-01	0	25.520	25.000	ug/L		102		70 - 130
		Matrix Spike Duplicate	0700515-01	0	25.570	25.000	ug/L	0	102	20	70 - 130
Toluene	BQA0878	Matrix Spike	0700515-01	0	24.920	25.000	ug/L		99.7		70 - 130
		Matrix Spike Duplicate	0700515-01	0	25.180	25.000	ug/L	1.3	101	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BQA0878	Matrix Spike	0700515-01	ND	10.030	10.000	ug/L		100		76 - 114
		Matrix Spike Duplicate	0700515-01	ND	10.230	10.000	ug/L		102		76 - 114
Toluene-d8 (Surrogate)	BQA0878	Matrix Spike	0700515-01	ND	10.040	10.000	ug/L		100		88 - 110
		Matrix Spike Duplicate	0700515-01	ND	10.130	10.000	ug/L		101		88 - 110
4-Bromofluorobenzene (Surrogate)	BQA0878	Matrix Spike	0700515-01	ND	10.300	10.000	ug/L		103		86 - 115
		Matrix Spike Duplicate	0700515-01	ND	10.060	10.000	ug/L		101		86 - 115

TRC Alton Geoscience  
 21 Technology Drive  
 Irvine, CA 92618-2302

Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## 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	RPD	Control Limits		Lab Quals
										Percent Recovery	RPD	
Benzene	BQA0878	BQA0878-BS1	LCS	25.920	25.000	1.0	ug/L	104		70 - 130		
Toluene	BQA0878	BQA0878-BS1	LCS	25.620	25.000	1.0	ug/L	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BQA0878	BQA0878-BS1	LCS	10.110	10.000		ug/L	101		76 - 114		
Toluene-d8 (Surrogate)	BQA0878	BQA0878-BS1	LCS	9.9700	10.000		ug/L	99.7		88 - 110		
4-Bromofluorobenzene (Surrogate)	BQA0878	BQA0878-BS1	LCS	10.030	10.000		ug/L	100		86 - 115		

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 21 Technology Drive  
 Irvine, CA 92618-2302

Project: 7124  
 Project Number: [none]  
 Project Manager: Anju Farfan

Reported: 01/22/2007 13:05

## 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	BQA0878	BQA0878-BLK1	ND	ug/L	1.0		
Ethylbenzene	BQA0878	BQA0878-BLK1	ND	ug/L	1.0		
Methyl t-butyl ether	BQA0878	BQA0878-BLK1	ND	ug/L	2.0		
Toluene	BQA0878	BQA0878-BLK1	ND	ug/L	1.0		
Total Xylenes	BQA0878	BQA0878-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BQA0878	BQA0878-BLK1	ND	ug/L	2.0		
t-Butyl alcohol	BQA0878	BQA0878-BLK1	ND	ug/L	10		
Diisopropyl ether	BQA0878	BQA0878-BLK1	ND	ug/L	2.0		
Ethanol	BQA0878	BQA0878-BLK1	ND	ug/L	1000		
Ethyl t-butyl ether	BQA0878	BQA0878-BLK1	ND	ug/L	2.0		
Total Purgeable Petroleum Hydrocarbons	BQA0878	BQA0878-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BQA0878	BQA0878-BLK1	103	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BQA0878	BQA0878-BLK1	97.7	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BQA0878	BQA0878-BLK1	104	%	86 - 115 (LCL - UCL)		

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21 Technology Drive  
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## 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.  
S09 The surrogate recovery on the sample for this compound was not within the control limits.

Submission #: 07-00609

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  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: R/W  
 Temperature: 3.0 °C  
 Thermometer ID: 48

Emissivity: 0.95  
 Container: V29

Date/Time: 1/16/07  
 Analyst Init: JMR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
100ml TOTAL ORGANIC CARBON										
QT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3.	A.3.	A.3.	A.3.						
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT QA/QC										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: JMR Date/Time: 1/17/07 0715

CHK BY JKR DISTRIBUTION  
 SUB-OUT

#07-00609

BC LABORATORIES, INC.

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

CHAIN OF CUSTODY

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/ MTBE & oxygenates BTEX/MTBE/OXYS BY 8260B ETHANOL by 8260B TPH -G by GC/MS EDB/EDC by 8260B	Turnaround Time Requested
Address: 10151 International Blvd.		21 Techology Drive Irvine, CA 92618-2302 Attn: Anju Farfan				
City: oakland		4-digit site#: 7124				
State: CA Zip:		Workorder # 01634-4506963018				
Conoco Phillips Mgr: Thomas Kosei		Project #: 41060001				
Lab#	Sample Description	Field Point Name	Date & Time Sampled			
-1		MW-1	01-12-07 1150	GW		STD
-2		MW-2	01-12-07 1215	GW		STD
-3		MW-4	01-12-07 1235	GW		STD
-4		MW-3	01-12-07 1255	GW		STD

Comments:  GLOBAL ID: T0600173591	Relinquished by: (Signature) <i>Joe D. Lewis</i>	Received by: refrigerator	Date & Time 01-12-07 1355
	Relinquished by: (Signature) <i>Joe D. Lewis</i>	Received by: <i>Russ Dickey</i>	Date & Time 1/15/07 1400
	Relinquished by: (Signature) <i>Russ Dickey 1/16/07</i>	Received by: <i>[Signature]</i>	Date & Time 1-16-07 1730

## **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.