



76 Broadway
Sacramento, California 95818

RECEIVED

2:21 pm, Apr 03, 2008

Alameda County
Environmental Health

March 28, 2008

Ms. Donna Drogos
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: Quarterly Summary Report – 4th Quarter 2007
76 Service Station # 1871
96 MacAuthur Blvd.
Oakland, California

Dear Ms. Drogos:

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,

A handwritten signature in black ink that appears to read "Bill Borgh".

Bill Borgh
Site Manager – Risk Management and Remediation

Attachment

February 29, 2008

Ms. Donna Drogos
Supervising Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: Quarterly Summary Report – Fourth Quarter 2007
76 Service Station No. 1871
96 MacArthur Boulevard
Oakland, California



Dear Ms. Drogos,

On behalf of ConocoPhillips Company (ConocoPhillips), Delta Consultants (Delta) is submitting the subject report and forwarding a copy of TRC's *Quarterly Monitoring Report October through December 2007* dated January 16, 2008 for the above site. TRC has uploaded a copy of their report to the GeoTracker database.

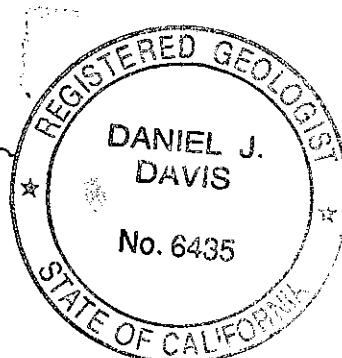
Please contact me at (916) 503-1260 if you have questions.

Sincerely,
Delta Consultants



Daniel J. Davis, R.G.
Senior Project Manager

Enclosure



cc: Mr. Bill Borgh- ConocoPhillips (electronic copy only)

a member of:



QUARTERLY SUMMARY REPORT
Fourth Quarter 2007

76 Service Station No. 1871
96 MacArthur Boulevard
Oakland, California

County: Alameda

SITE DESCRIPTION

The site is an operating service station located on the north corner of the intersection of MacArthur Boulevard and Harrison Street in Oakland, California. The site is currently a QuikStop market and petroleum dispensing facility. There are four dispenser islands, one station building, and two gasoline underground storage tanks (USTs).

SITE BACKGROUND AND ACTIVITY

May 1992: Roux Associates (Roux) performed a dispenser and product piping modification project.

October 1992: Roux installed three 4-inch diameter groundwater monitoring wells onsite.

January 1993: Quarterly groundwater sampling and monitoring began.

August 1994: A 280-gallon single-wall steel waste oil UST was replaced with a 550-gallon double-wall fiberglass UST. Conformation sampling was performed.

February 1996: The Alameda County Health Care Service Agency (ACHCSA) approved Unocal's request to reduce the groundwater monitoring and sampling frequency from quarterly to semiannually (KEI, 1996).

March 1996: Two monitoring wells were installed at the site.

May 1998: John's Excavating of Santa Rosa, California removed all underground and aboveground equipment and facilities. Facilities included two 12,000-gallon double-wall steel gasoline USTs, one 550-gallon double-wall steel waste oil UST, two hydraulic lifts, two dispenser islands and related single-wall product piping, and one service station building. Gettler-Ryan Inc. (GR) personnel performed soil and groundwater sampling activities in conjunction with the station demolition. A total of 1,252.78 tons of soil were removed from the site during demolition activities and transported to Forward Landfill for disposal.

September 1998: Two wells that were damaged during site demolition activities were drilled out and the boreholes backfilled with neat cement to grade. In addition, one soil boring was advanced onsite to a total depth of 16.5 feet below ground surface (bgs). Groundwater was encountered at approximately 10.5 feet bgs. Soil and groundwater samples were collected for development of a Risk Based Corrective Action (RBCA) evaluation for the site.

February 1999: GR performed a RBCA evaluation. The RBCA evaluation concluded that, since the site was scheduled for construction of a fuel dispensing facility covered with

concrete and asphalt and no groundwater receptors were located within a 1/4 mile radius of the site, the potential threat to public health and environment was not of significant concern.

June 1999: GR installed three offsite monitoring wells, and advanced nine soil borings on and near the site. Depth-discrete soil and groundwater samples were collected.

April 2002: An ozone injection system was installed and activated at the site.

September 2003: Operations and maintenance responsibilities for the remediation system were transferred to SECOR International Inc. (SECOR).

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

January 2006: Operations and maintenance responsibilities for the remediation system were transferred to Environ Strategy Consultants, Inc. International Inc. (Environ Strategy).

November 2007: At the request of the ACHCSA, TRC submitted a Site Conceptual Model.

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

SENSITIVE RECEPTORS

No potential receptors for impacted groundwater were identified within a 1/4 mile radius of the site during the 1999 RBCA evaluation. No other sensitive receptor surveys have been conducted for the site.

GROUNDWATER MONITORING AND SAMPLING

The groundwater monitoring well network, consisting of one onsite and six offsite monitoring wells, has been monitored and sampled on a quarterly basis since January 2002. During the most recent groundwater sampling event conducted on December 17 and 19, 2007, reported depth to groundwater ranged from 6.92 feet (MW-10) to 15.75 feet (MW-11) below top of casing (TOC).

The groundwater flow direction was reported west at a gradient of 0.03. This is consistent with a gradient of 0.03 southwest during the previous sampling event (September 28, 2007). Reported historical groundwater flow direction has been primarily to the southwest.

Dissolved groundwater concentrations are reported as follows.

TPH-G Detected in two of the seven sampled wells with a maximum concentration of 4,700 µg/L in well MW-1. This is an increase from a maximum concentration of 390 µg/L in well MW-9 during the previous sampling event.

Benzene Not reported above laboratory reporting limits in any sampled well. This is consistent with historical concentrations.

MTBE Detected in six of the seven sampled wells with a maximum concentration of 480 µg/L in well MW-9. This is an increase from a maximum concentration of 430 µg/L in well MW-9 during the previous sampling event.

REMEDIATION STATUS

April 2002: GR installed an ozone sparging system utilizing 10 ozone sparge wells completed to maximum depths of 25 to 30 feet bgs. The system was activated on April 8, 2002. Since then approximately 149 pounds of ozone have been injected.

CHARACTERIZATION STATUS

Maximum TPH-G, benzene, and MTBE soil concentrations were reported at 1,700 ppm, 3.1 ppm, and 1 ppm, respectively.

Maximum TPH-G and MTBE were detected during the most recent groundwater sampling event at 4,700 µg/L (MW-1) and 480 µg/L (MW-9), respectively.

RECENT CORRESPONDENCE

No regulatory correspondence were received or sent during the fourth quarter 2007.

THIS QUARTER ACTIVITIES (Fourth Quarter 2007)

- Monitoring and sampling of the groundwater monitoring well network was conducted by TRC on December 17 and 19, 2007.
- TRC prepared the *Quarterly Monitoring Report, October through December 2007* dated January 16, 2008.

NEXT QUARTER ACTIVITIES (First Quarter 2008)

- TRC will perform the first quarter 2008 groundwater monitoring and sampling event and will prepare a quarterly monitoring report.

CONSULTANT: Delta Consultants



21 Technology Drive
Irvine, CA 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

DATE: January 16, 2008

TO: ConocoPhillips Company
76 Broadway
Sacramento, California 95818

ATTN: MR. BILL BORGH

SITE: 76 STATION 1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT
OCTOBER THROUGH DECEMBER 2007

Dear Mr. Borgh:

Please find enclosed our Quarterly Monitoring Report for 76 Station, located at 96 MacArthur Boulevard, Oakland, California. If you have any questions regarding this report, please call us at (949) 727-9336.

Sincerely,

TRC

Anju Farfan
Groundwater Program Operations Manager

CC: Mr. Daniel Davis, Delta Consultants (3 copies)

Enclosures
20-0400/1871R17.QMS

**QUARTERLY MONITORING REPORT
OCTOBER THROUGH DECEMBER 2007**

76 STATION 1871
96 MacArthur Boulevard
Oakland, California

Prepared For:

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

By:



Senior Project Geologist, Irvine Operations

Date: 1/15/08

Summary of Gauging and Sampling Activities
October 2007 through December 2007
76 Station 1871
96 MacArthur Boulevard
Oakland, CA

Project Coordinator: **Bill Borgh** Water Sampling Contractor: **TRC**
Telephone: **916-558-7612** Compiled by: **Daniel Lee**

Date(s) of Gauging/Sampling Event: **12/17/07, 12/19/07**

Sample Points

Groundwater wells: **1** onsite, **6** offsite Wells gauged: **7** Wells sampled: **7**

Purging method: **Diaphragm pump/bailer**

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: **6.92 feet** Maximum: **15.75 feet**

Average groundwater elevation (relative to available local datum): **68.83 feet**

Average change in groundwater elevation since previous event: **-0.05 feet**

Interpreted groundwater gradient and flow direction:

Current event: **0.03 ft/ft, west**

Previous event: **0.03 ft/ft, southwest (9/28/07)**

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: **4,700 µg/l (MW-1)**

Wells with **MTBE 8260B** **6** Maximum: **480 µg/l (MW-9)**

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
$\mu\text{g/l}$	= 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	= trichloroethylene
TPH-G	= total petroleum hydrocarbons with gasoline distinction
TPH-G (GC/MS)	= total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B
TPH-D	= total petroleum hydrocarbons with diesel distinction
TRPH	= total recoverable petroleum hydrocarbons
TAME	= tertiary amyl methyl ether
1,1-DCA	= 1,1-dichloroethane
1,2-DCA	= 1,2-dichloroethane (same as EDC, ethylene dichloride)
1,1-DCE	= 1,1-dichloroethene
1,2-DCE	= 1,2-dichloroethene (cis- and trans-)

NOTES

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

REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 1871 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 1871

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	Ethanol (8260B)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen	Pre-purge ORP	Post-purge ORP
----------	---------------	--------------------	-----------------------------------	----------------------------------	------------------	-------------------

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	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	pH (lab)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen	Pre-purge ORP	Post-purge ORP
----------	---------------	-------	-----	--------------------	---------------------------------	------------------	------	------	------	----------	-----------------------------------	----------------------------------	------------------	-------------------

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
December 17, 2007
76 Station 1871

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)	
MW-1 (Screen Interval in feet: 9.5-24.5)														
12/17/07	86.99	14.57	0.00	72.42	-0.65	--	4700	ND<5.0	ND<5.0	71	160	--	18	
MW-6 (Screen Interval in feet: 5.0-25.0)														
12/17/07	79.67	9.62	0.00	70.05	0.03	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	
MW-7 (Screen Interval in feet: 5.0-25.0)														
12/19/07	80.67	9.23	0.00	71.44	-0.18	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.2	
MW-8 (Screen Interval in feet: 5.0-25.0)														
12/17/07	81.71	9.81	0.00	71.90	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	16	
MW-9 (Screen Interval in feet: DNA)														
12/17/07	82.07	15.72	0.00	66.35	-0.24	--	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	480	
MW-10 (Screen Interval in feet: DNA)														
12/17/07	74.98	6.92	0.00	68.06	0.32	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
MW-11 (Screen Interval in feet: DNA)														
12/17/07	77.31	15.75	0.00	61.56	0.27	--	ND<50	ND<0.50	ND<0.50	ND<0.50	1.0	--	ND<0.50	

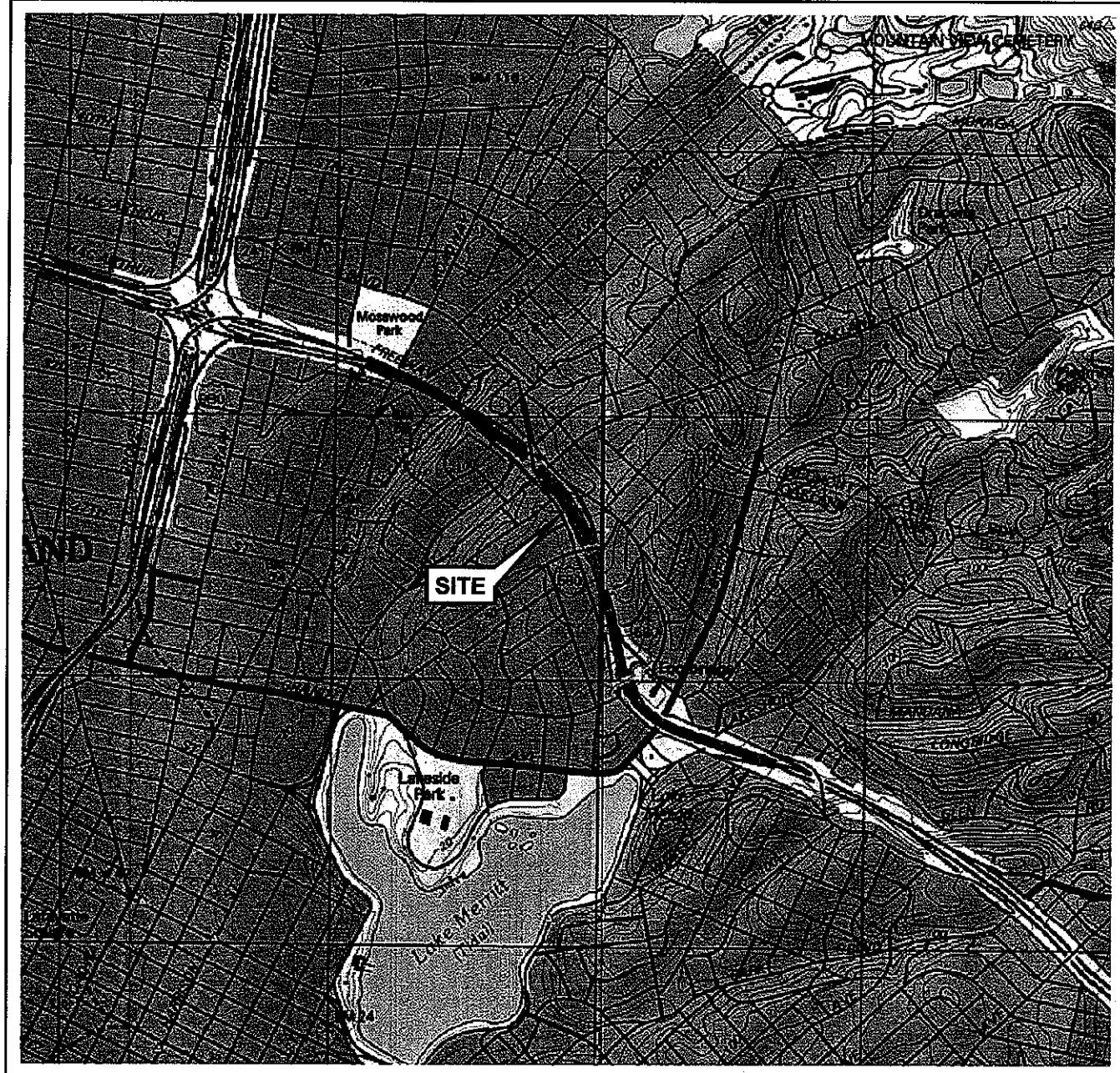
Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
76 Station 1871

Date Sampled	Ethanol (8260B)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen	Pre-purge ORP	Post-purge ORP
	($\mu\text{g/l}$)	(mg/l)	(mg/l)	(mV)	(mV)
MW-1					
12/17/07	ND<2500	9.74	6.51	-63	-46
MW-6					
12/17/07	ND<250	10.19	9.38	-23	-14
MW-7					
12/19/07	ND<250	6.70	6.72	-17	-13
MW-8					
12/17/07	ND<250	6.95	5.26	26	24
MW-9					
12/17/07	ND<250	5.05	4.81	-27	-35
MW-10					
12/17/07	ND<250	4.97	4.46	-15	-2
MW-11					
12/17/07	ND<250	8.71	8.01	47	46

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 1871

Date Sampled	TPH-D ($\mu\text{g/l}$)	TBA ($\mu\text{g/l}$)	Ethanol (8260B) ($\mu\text{g/l}$)	Ethylene-dibromide (EDB) ($\mu\text{g/l}$)	1,2-DCA (EDC) ($\mu\text{g/l}$)	DIPE ($\mu\text{g/l}$)	ETBE ($\mu\text{g/l}$)	TAME ($\mu\text{g/l}$)	pH (lab) (pH)	Post-purge Dissolved Oxygen (mg/l)	Pre-purge Dissolved Oxygen (mg/l)	Pre-purge ORP (mV)	Post-purge ORP (mV)
MW-11 continued													
12/17/07	--	--	ND<250	--	--	--	--	--	--	8.71	8.01	47	46

FIGURES



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

SCALE 1:24,000



SOURCE:

United States Geological Survey
7.5 Minute Topographic Map:
Oakland Quadrangle



PROJECT: 154771

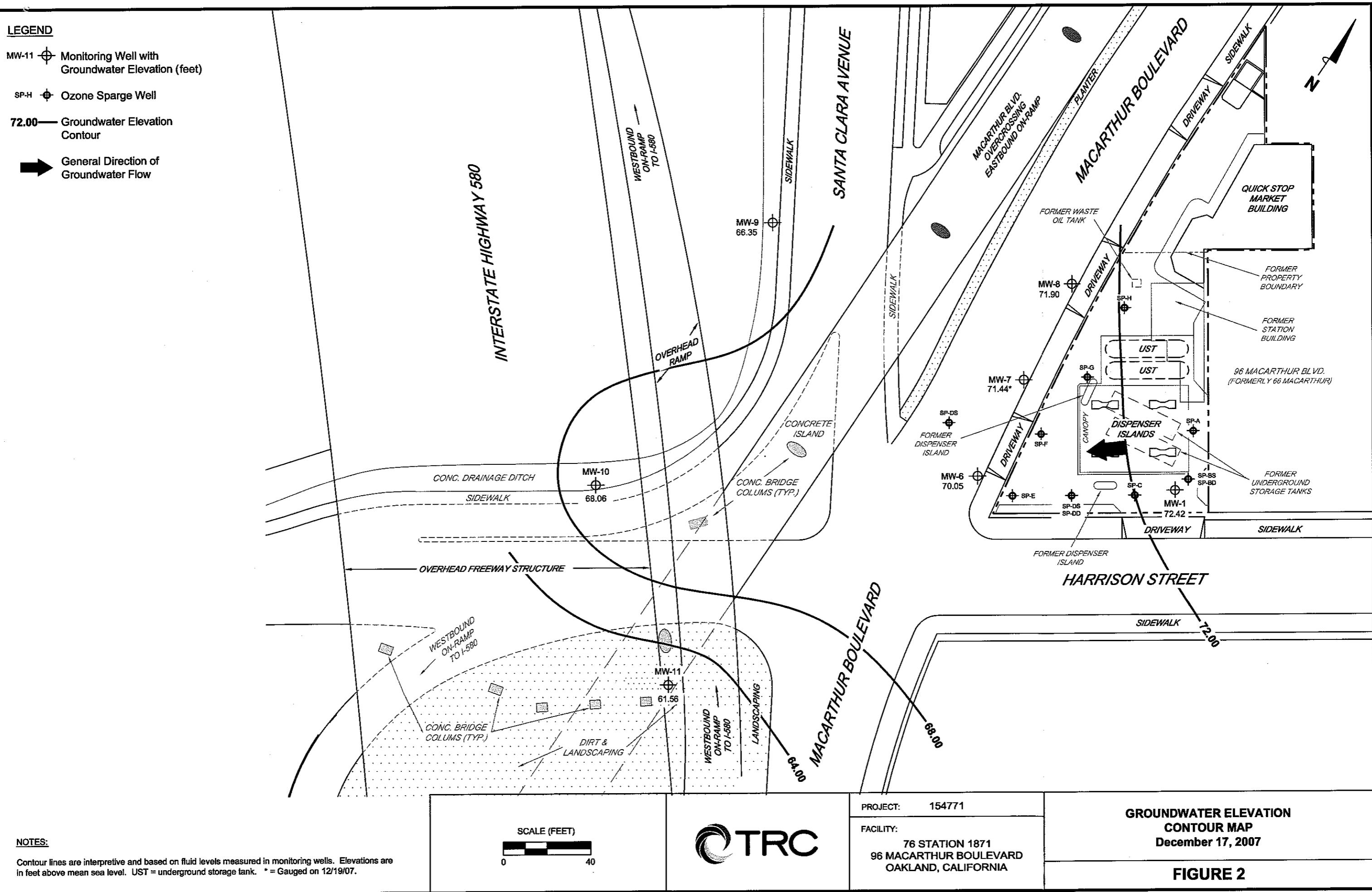
FACILITY:

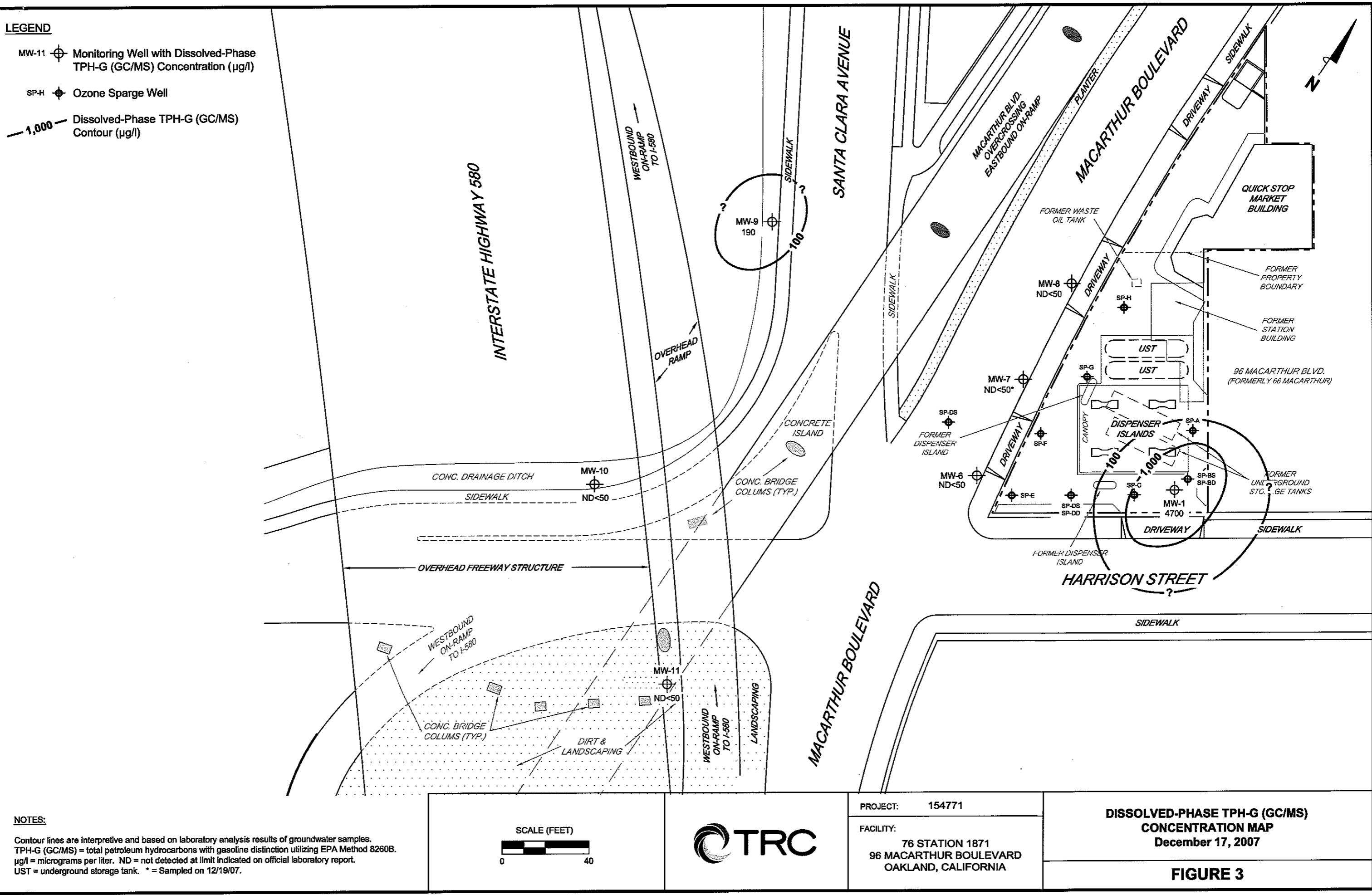
76 STATION 1871
96 MacARTHUR BOULEVARD
OAKLAND, CALIFORNIA

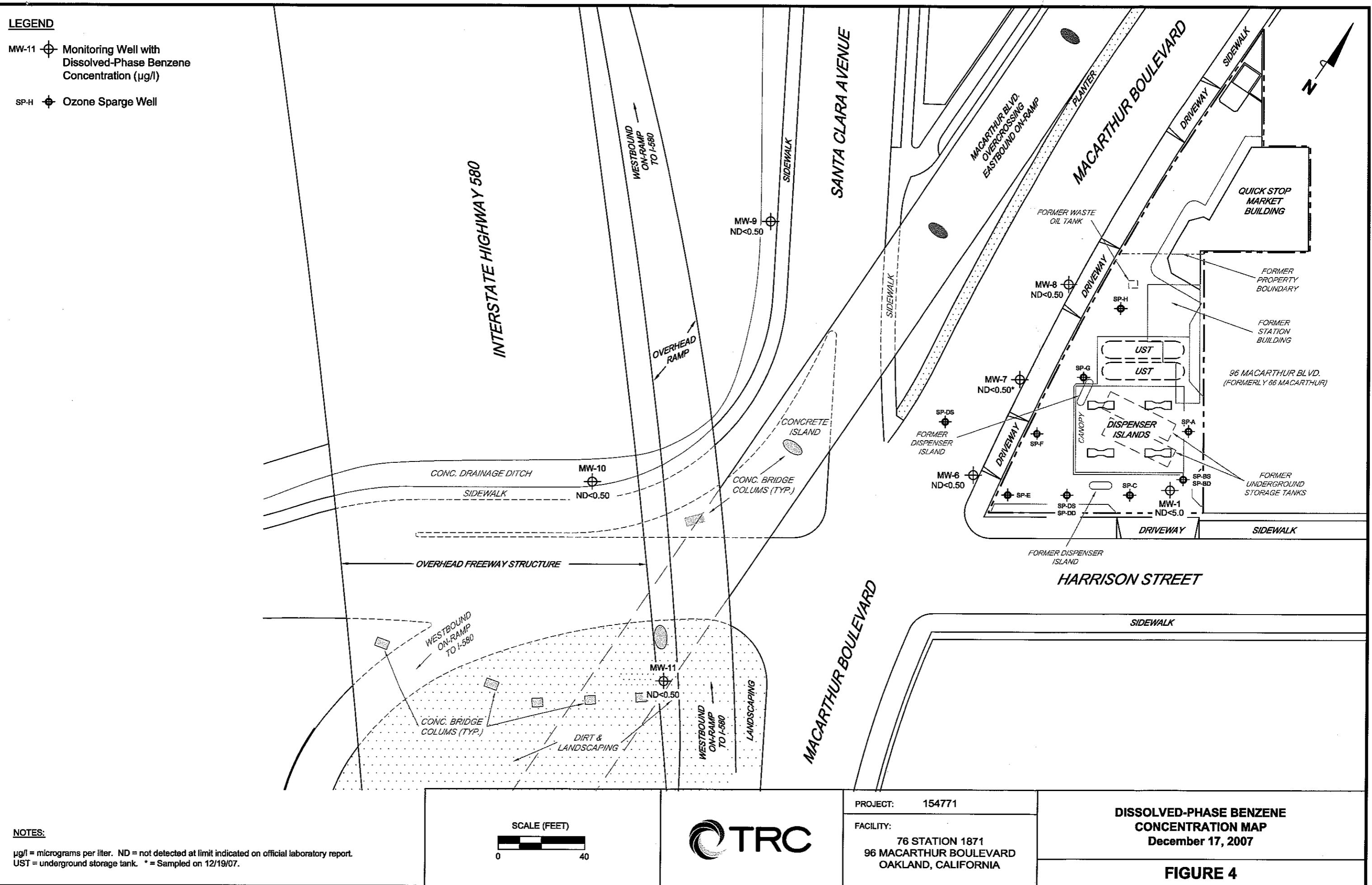
VICINITY MAP

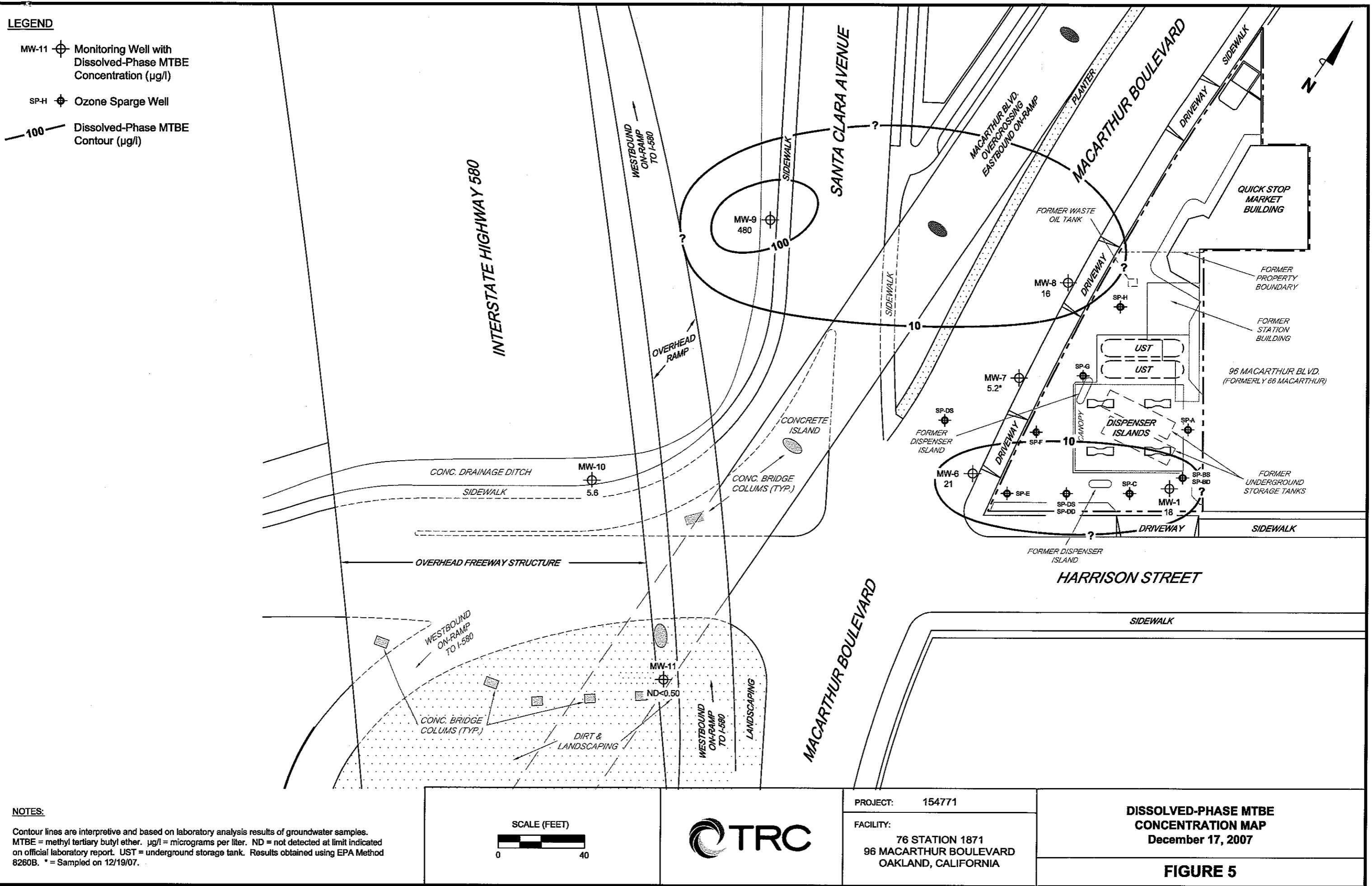


FIGURE 1



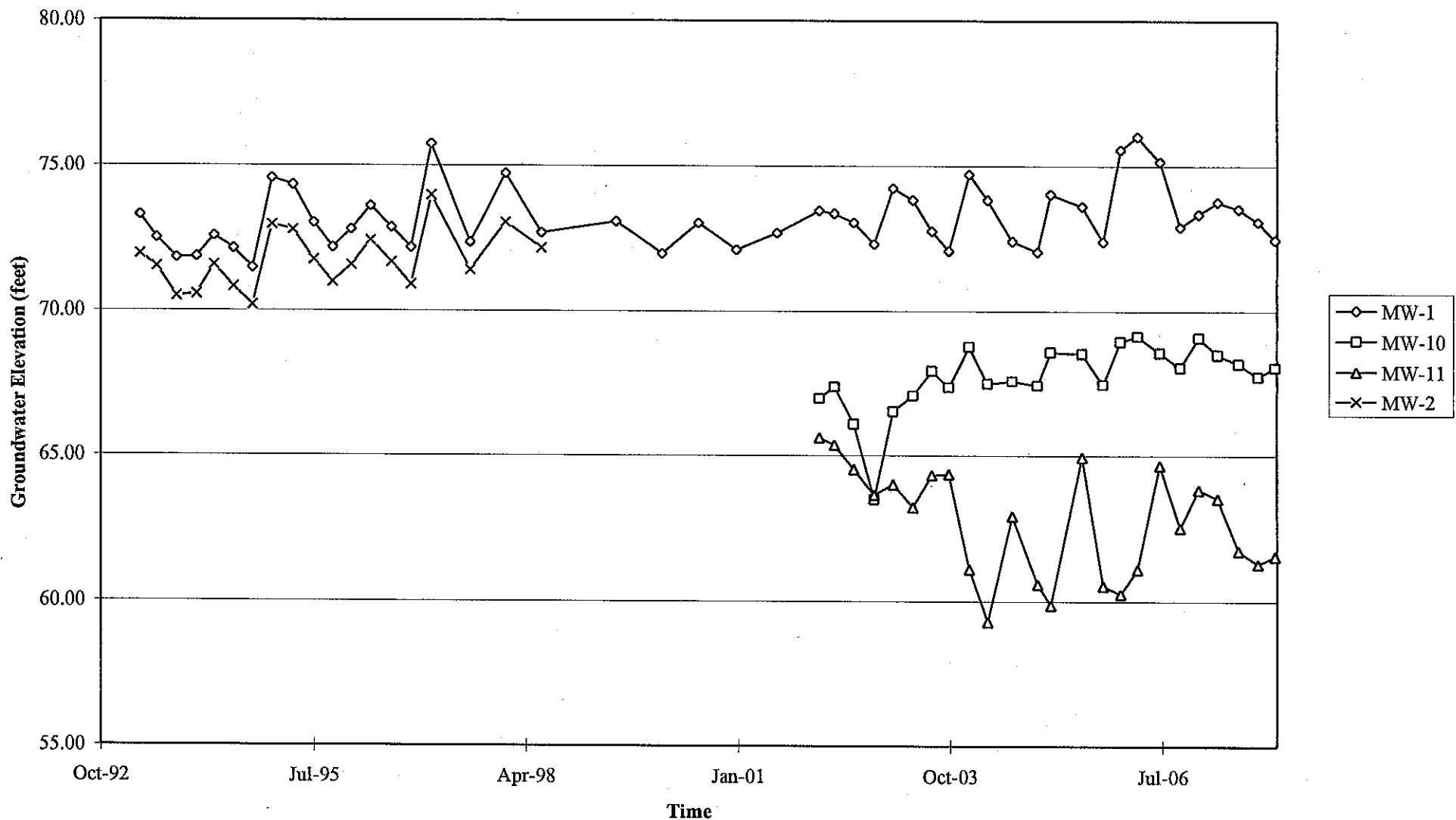






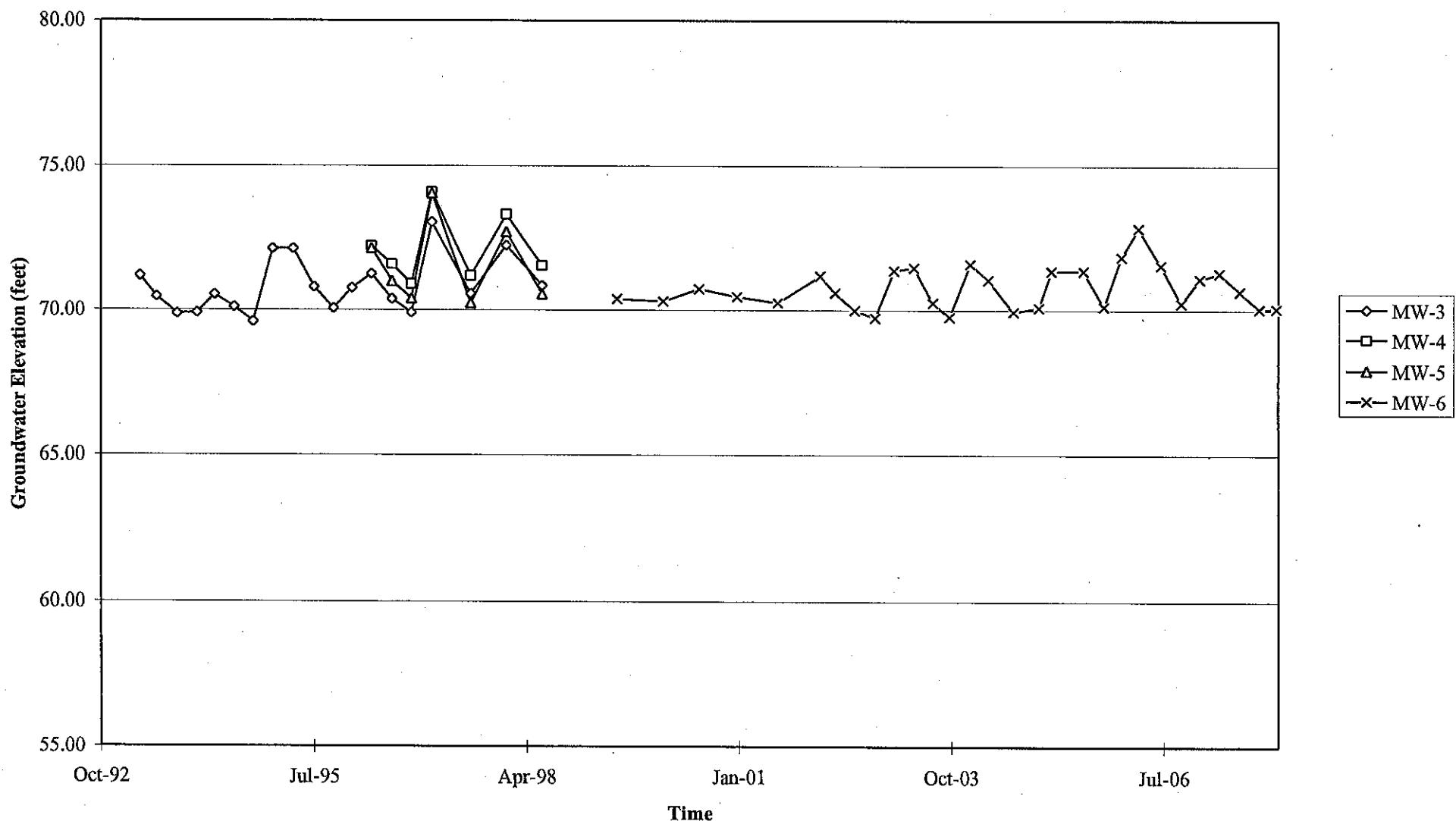
GRAPHS

Groundwater Elevations vs. Time
76 Station 1871



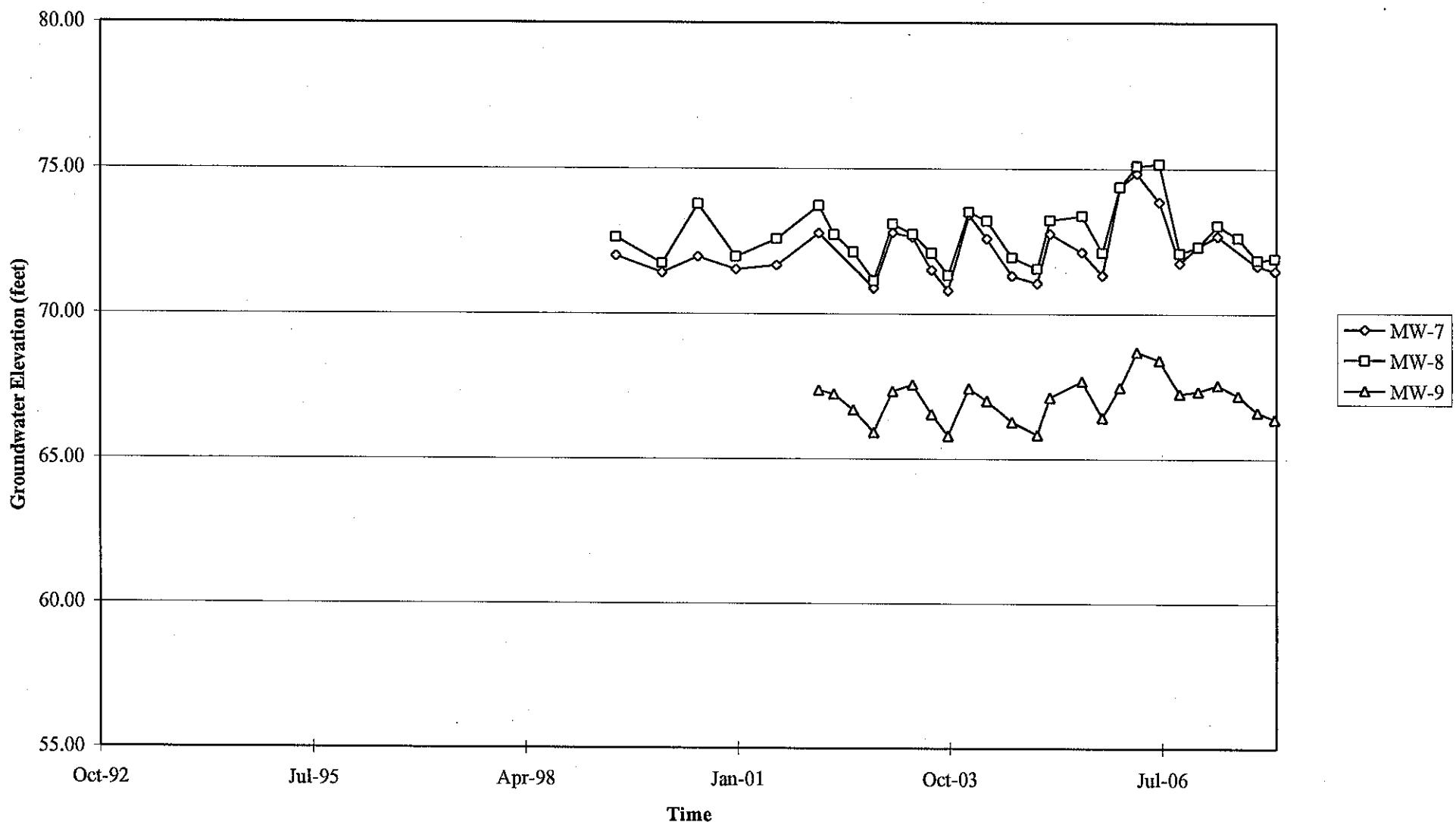
Elevations may have been corrected for apparent changes due to resurvey

Groundwater Elevations vs. Time
76 Station 1871



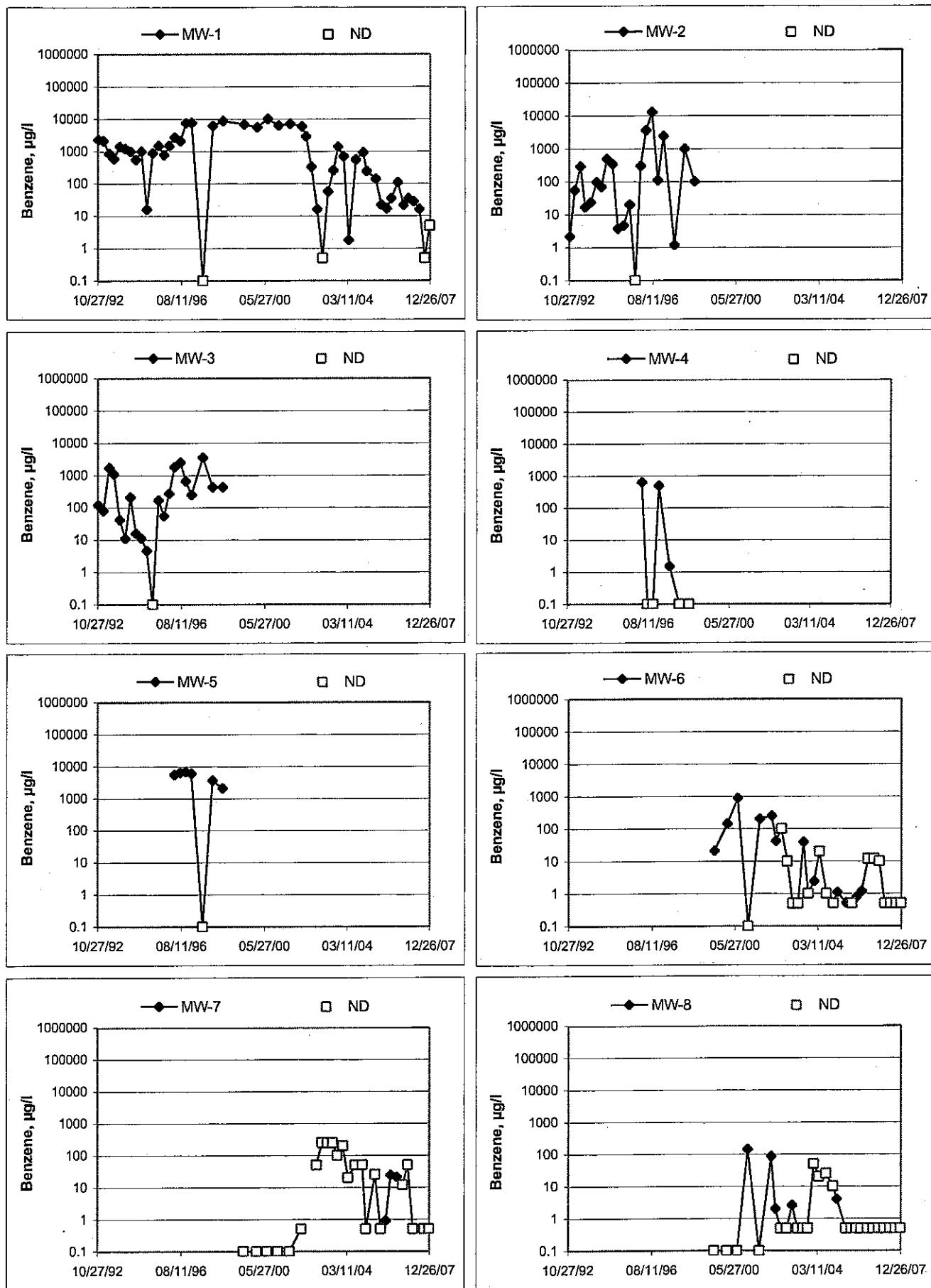
Elevations may have been corrected for apparent changes due to resurvey

Groundwater Elevations vs. Time
76 Station 1871

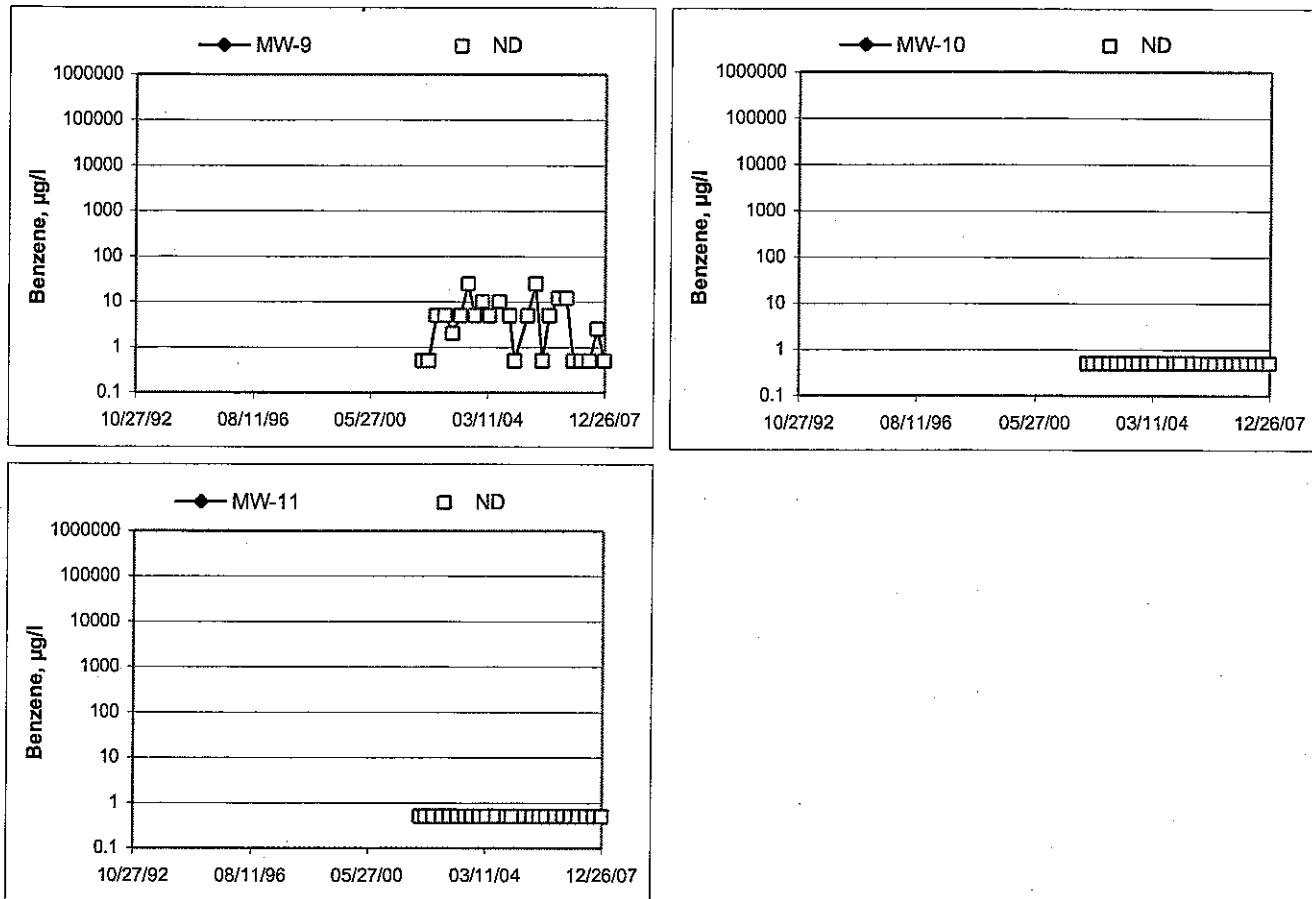


Elevations may have been corrected for apparent changes due to resurvey

Benzene Concentrations vs Time
76 Station 1871



Benzene Concentrations vs Time
76 Station 1871



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, $\frac{1}{2}$ -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.

FIELD MONITORING DATA SHEET

Technician: Dirk R.Job #/Task #: 154771/FA20Date: 12/17/07Site #: 1871Project Manager A. CollinsPage 1 of 1

Well #	Time Gauged	TOC	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-6	0637	✓	21.50	9.62	—	—	1025	2"
MW-11	0750	✓	29.80	15.75	—	—	1050	3"
MW-1	0646	✓	21.00	14.57	—	—	1040	4"
MW-10	0637	✓	19.97	6.92	—	—	1128	2"
MW-8	0707	✓	24.27	9.81	—	—	1145	2"
MW-7	—	—	—	—	—	—	N/S	<u>INACCESSIBLE</u>
MW-9	0717	✓	19.82	15.72	—	—	1105	2"
FIELD DATA COMPLETE			QA/QC	COC		WELL BOX CONDITION SHEETS		
WTT CERTIFICATE			MANIFEST	DRUM INVENTORY		TRAFFIC CONTROL		

GROUNDWATER SAMPLING FIELD NOTES

Technician: Rick R.

Site: 1871

Project No.: 194771

Date: 12/19/07

Well No. MW-7

Purge Method: HB

Depth to Water (feet): 9.23

Depth to Product (feet):

Total Depth (feet) 24.30

LPH & Water Recovered (gallons):

Water Column (feet) 15.07

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 12.24

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
0551			2	394.9	19.1	7.02	6.42	-17	
			4	588.8	19.7	6.80	6.68	-16	
0600			6	591.1	19.7	6.70	6.70	-13	
Static at Time Sampled			Total Gallons Purged			Sample Time			
11.78			6			0610			
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:									

STATEMENT OF NON-COMPLETION OF JOB

DATE OF EVENT: 12/17/67 STATION NUMBER: 1871

NAME OF TECH: RICK R. CALLED GORDON: _____

CALLED PM: X NAME OF PM CALLED: A. Collins

WELL NUMBER: MW-7 STATEMENT FROM PM _____ OR TECH X

CAR PARKED OVER WELL.

WELL NUMBER: _____ STATEMENT FROM PM _____ OR TECH _____

WELL NUMBER: _____ STATEMENT FROM PM _____ OR TECH _____

WELL NUMBER: _____ STATEMENT FROM PM _____ OR TECH _____



LABORATORIES, INC.

Date of Report: 12/27/2007

Anju Farfan

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

RE: 1871
BC Work Order: 0714988

Enclosed are the results of analyses for samples received by the laboratory on 12/17/2007 21:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Steven Bennett

Authorized Signature



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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
0714988-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	-- 1871 MW-6 MW-6 TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	12/17/2007 21:20 12/17/2007 10:25 -- Water	Delivery Work Order: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0714988-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	-- 1871 MW-11 MW-11 TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	12/17/2007 21:20 12/17/2007 10:50 -- Water	Delivery Work Order: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0714988-03	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	-- 1871 MW-1 MW-1 TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	12/17/2007 21:20 12/17/2007 10:40 -- Water	Delivery Work Order: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0714988-04	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	-- 1871 MW-10 MW-10 TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	12/17/2007 21:20 12/17/2007 11:28 -- Water	Delivery Work Order: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0714988-05	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	-- 1871 MW-8 MW-8 TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:	12/17/2007 21:20 12/17/2007 11:45 -- Water	Delivery Work Order: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

0714988-06	COC Number: ---	Receive Date: 12/17/2007 21:20	Delivery Work Order:
	Project Number: 1871	Sampling Date: 12/17/2007 11:05	Global ID: T0600101493
	Sampling Location: MW-9	Sample Depth: ---	Matrix: W
	Sampling Point: MW-9	Sample Matrix: Water	Samle QC Type (SACode): CS
	Sampled By: TRCI		Cooler ID:



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0714988-01	Client Sample Name: 1871, MW-6, MW-6, 12/17/2007 10:25:00AM											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	QC Dilution	Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
Ethylbenzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
Methyl t-butyl ether	21	ug/L	0.50		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
Toluene	ND	ug/L	0.50		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
Total Xylenes	ND	ug/L	1.0		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
Ethanol	ND	ug/L	250		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117	ND	
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117		
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117		
4-Bromofluorobenzene (Surrogate)	109	%	86 - 115 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:05	MWB	HPCHEM	1	BQL1117		



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0714988-02	Client Sample Name: 1871, MW-11, MW-11, 12/17/2007 10:50:00AM										
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Instrument ID	QC Dilution	Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
Ethylbenzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
Toluene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
Total Xylenes	1.0	ug/L	1.0		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
Ethanol	ND	ug/L	250		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	ND
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	76 - 114 (LCL - UCL)		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	
4-Bromofluorobenzene (Surrogate)	107	%	86 - 115 (LCL - UCL)		EPA-8260	12/20/07	12/20/07 19:53	MWB	MS-V13	1	BQL1117	



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	Client Sample Name: 1871, MW-1, MW-1, 12/17/2007 10:40:00AM											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Instrument ID	QC Dilution	Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	5.0		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
Ethylbenzene	71	ug/L	5.0		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
Methyl t-butyl ether	18	ug/L	5.0		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
Toluene	ND	ug/L	5.0		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
Total Xylenes	160	ug/L	10		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
Ethanol	ND	ug/L	2500		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
Total Purgeable Petroleum Hydrocarbons	4700	ug/L	500		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117		
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117		
4-Bromofluorobenzene (Surrogate)	110	%	86 - 115 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:40	MWB HPCHEM	10	BQL1117		



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0714988-04	Client Sample Name: 1871, MW-10, MW-10, 12/17/2007 11:28:00AM										
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Instrument ID	QC Dilution	Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
Ethylbenzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
Methyl t-butyl ether	5.6	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
Toluene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
Total Xylenes	ND	ug/L	1.0		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
Ethanol	ND	ug/L	250		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	ND
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	
Toluene-d8 (Surrogate)	98.3	%	88 - 110 (LCL - UCL)		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	
4-Bromofluorobenzene (Surrogate)	114	%	86 - 115 (LCL - UCL)		EPA-8260	12/20/07	12/20/07 20:11	MWB	MS-V13	1	BQL1117	



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	Client Sample Name: 1871, MW-8, MW-8, 12/17/2007 11:45:00AM											
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
Ethylbenzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
Methyl t-butyl ether	16	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
Toluene	ND	ug/L	0.50		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
Total Xylenes	ND	ug/L	1.0		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
Ethanol	ND	ug/L	250		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117	ND
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)	EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117		
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117		
4-Bromofluorobenzene (Surrogate)	105	%	86 - 115 (LCL - UCL)	EPA-8260	12/20/07	12/20/07 20:29	MWB	MS-V13	1	BQL1117		



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0714988-06	Client Sample Name: 1871, MW-9, MW-9, 12/17/2007 11:05:00AM										
Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Instrument ID	QC Dilution	Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	ND
Ethylbenzene	ND	ug/L	0.50		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	ND
Methyl t-butyl ether	480	ug/L	5.0		EPA-8260	12/20/07	12/21/07 11:58	MWB	HPCHEM	10	BQL1117	ND A01
Toluene	ND	ug/L	0.50		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	ND
Total Xylenes	ND	ug/L	1.0		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	ND
Ethanol	ND	ug/L	250		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	ND
Total Purgeable Petroleum Hydrocarbons	190	ug/L	50		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	ND A90
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:58	MWB	HPCHEM	10	BQL1117	
Toluene-d8 (Surrogate)	98.5	%	88 - 110 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:58	MWB	HPCHEM	10	BQL1117	
4-Bromofluorobenzene (Surrogate)	114	%	86 - 115 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 11:58	MWB	HPCHEM	10	BQL1117	
4-Bromofluorobenzene (Surrogate)	111	%	86 - 115 (LCL - UCL)		EPA-8260	12/20/07	12/21/07 12:33	MWB	HPCHEM	1	BQL1117	



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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

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	Control Limits		
									Percent Recovery	RPD	Percent Recovery Lab Quals
Benzene	BQL1117	Matrix Spike	0714775-16	0	27.760	25.000	ug/L	111	111	20	70 - 130
		Matrix Spike Duplicate	0714775-16	0	28.690	25.000	ug/L	3.5	115	20	70 - 130
Toluene	BQL1117	Matrix Spike	0714775-16	0	27.260	25.000	ug/L	109	109	20	70 - 130
		Matrix Spike Duplicate	0714775-16	0	27.990	25.000	ug/L	2.7	112	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BQL1117	Matrix Spike	0714775-16	ND	10.600	10.000	ug/L	106	106	20	76 - 114
		Matrix Spike Duplicate	0714775-16	ND	10.940	10.000	ug/L	109	109	20	76 - 114
Toluene-d8 (Surrogate)	BQL1117	Matrix Spike	0714775-16	ND	10.380	10.000	ug/L	104	104	20	88 - 110
		Matrix Spike Duplicate	0714775-16	ND	10.390	10.000	ug/L	104	104	20	88 - 110
4-Bromofluorobenzene (Surrogate)	BQL1117	Matrix Spike	0714775-16	ND	9.4800	10.000	ug/L	94.8	94.8	20	86 - 115
		Matrix Spike Duplicate	0714775-16	ND	9.4300	10.000	ug/L	94.3	94.3	20	86 - 115



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

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		
									Percent Recovery	RPD	Lab Quals
Benzene	BQL1117	BQL1117-BS1	LCS	28.350	25.000	1.0	ug/L	113	70 - 130		
Toluene	BQL1117	BQL1117-BS1	LCS	27.630	25.000	1.0	ug/L	111	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BQL1117	BQL1117-BS1	LCS	11.120	10.000		ug/L	111	76 - 114		
Toluene-d8 (Surrogate)	BQL1117	BQL1117-BS1	LCS	10.540	10.000		ug/L	105	88 - 110		
4-Bromofluorobenzene (Surrogate)	BQL1117	BQL1117-BS1	LCS	9.2500	10.000		ug/L	92.5	86 - 115		



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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

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	BQL1117	BQL1117-BLK1	ND	ug/L	1.0		
Ethylbenzene	BQL1117	BQL1117-BLK1	ND	ug/L	1.0		
Methyl t-butyl ether	BQL1117	BQL1117-BLK1	ND	ug/L	2.0		
Toluene	BQL1117	BQL1117-BLK1	ND	ug/L	1.0		
Total Xylenes	BQL1117	BQL1117-BLK1	ND	ug/L	1.0		
Ethanol	BQL1117	BQL1117-BLK1	ND	ug/L	1000		
Total Purgeable Petroleum Hydrocarbons	BQL1117	BQL1117-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BQL1117	BQL1117-BLK1	103	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BQL1117	BQL1117-BLK1	101	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BQL1117	BQL1117-BLK1	108	%	86 - 115 (LCL - UCL)		



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 12/27/2007 14:37

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 #: 0314988

Project Code:

TB Batch #

SHIPPING INFORMATION

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

SHIPPING CONTAINER

Ice Chest Box None
 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: P2Temperature: 31 °CThermometer ID: A-98

Emissivity

Container 0.98

Vas

Date/Time 12/18/04 12:20Analyst Init ALM**SAMPLE CONTAINERS****SAMPLE NUMBERS**

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

QT GENERAL MINERAL/ GENERAL PHYSICAL

PT PE UNPRESERVED

OT 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 A.3 A.31 1 1 1 1 1

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

1 OZ. JAR

2 OZ. JAR

OIL SLEEVE

CB VIAL

LASTIC BAG

ERROUS IRON

NCORE

Comments: _____

Sample Numbering Completed By: CRDate/Time: 12/18/04 1827

07-14988

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/ oxygenates	BTEX/MTBE by 8260B	ETHANOL by 8260B	TPH -G by GC/MS			
Address: 96 MACARTHUR Blvd		21 Technology Drive Irvine, CA 92618-2302 Attn: Anju Farfan												
City: OAKLAND		4-digit site#: 1871												
		Workorder #												
State: CA	Zip:	Project #: 154771												
Conoco Phillips Mgr: Bill Boroch		Sampler Name: Rick R.												
Lab#	Sample Description	Field Point Name	Date & Time Sampled											
1	MW-6	13/17/07 - 1023 QW			X	X	X						STD	
2	MW-11		1050											
3	MW-1		1040											
4	MW-10		1128											
5	MW-8		1145											
6	MW-9		1105	✓	CHIEF	DISCUSSION								
					ALM	JM	SLIP OUT							

Comments: GLOBAL ID: T0600101493	Relinquished by: (Signature)	Received by:	Date & Time
			12/17/07 - 1230
	Relinquished by: (Signature)	Received by:	Date & Time
		12/17/07 1620	
	Relinquished by: (Signature)	Received by:	Date & Time
			12-17-07 1845

D. R. 12-17-07 2120 / 12/17/07 12:00

BC

LABORATORIES, INC.

Date of Report: 01/03/2008

Anju Farfan

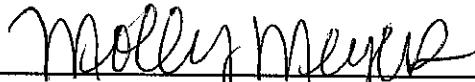
TRC Alton Geoscience
21 Technology Drive
Irvine, CA 92618-2302

RE: 1871

BC Work Order: 0715259

Enclosed are the results of analyses for samples received by the laboratory on 12/19/2007 20:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Contact Person: Molly Meyers
Client Service Rep



Authorized Signature



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 01/03/2008 16:11

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

0715259-01	COC Number: --- Project Number: 1871 Sampling Location: MW-7 Sampling Point: MW-7 Sampled By: TRCI	Receive Date: 12/19/2007 20:45 Sampling Date: 12/19/2007 06:10 Sample Depth: --- Sample Matrix: Water	Delivery Work Order: Global ID: T0600101493 Matrix: W Samle QC Type (SACode): CS Cooler ID:
------------	---	--	--

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 01/03/2008 16:11

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	0715259-01	Client Sample Name: 1871, MW-7, MW-7, 12/19/2007 6:10:00AM											
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	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
Ethylbenzene	ND	ug/L	0.50		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
Methyl t-butyl ether	5.2	ug/L	0.50		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
Toluene	ND	ug/L	0.50		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
Total Xylenes	ND	ug/L	1.0		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
Ethanol	ND	ug/L	250		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516	ND	
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	76 - 114 (LCL - UCL)		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516		
Toluene-d8 (Surrogate)	98.5	%	88 - 110 (LCL - UCL)		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516		
4-Bromofluorobenzene (Surrogate)	96.7	%	86 - 115 (LCL - UCL)		EPA-8260	12/28/07	12/28/07 14:26	ANO	MS-V4	1	BQL1516		



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 01/03/2008 16:11

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source	Source	Spike	Percent	Control Limits		
			Sample ID	Result	Added		RPD	RPD	Percent Recovery Lab Quals
Benzene	BQL1516	Matrix Spike	0715259-01	0	23.280	25.000	ug/L	93.1	70 - 130
		Matrix Spike Duplicate	0715259-01	0	24.510	25.000	ug/L	98.0	20
Toluene	BQL1516	Matrix Spike	0715259-01	0.19000	22.780	25.000	ug/L	90.4	70 - 130
		Matrix Spike Duplicate	0715259-01	0.19000	23.470	25.000	ug/L	93.1	20
1,2-Dichloroethane-d4 (Surrogate)	BQL1516	Matrix Spike	0715259-01	ND	11.080	10.000	ug/L	111	76 - 114
		Matrix Spike Duplicate	0715259-01	ND	11.100	10.000	ug/L	111	76 - 114
Toluene-d8 (Surrogate)	BQL1516	Matrix Spike	0715259-01	ND	10.240	10.000	ug/L	102	88 - 110
		Matrix Spike Duplicate	0715259-01	ND	10.320	10.000	ug/L	103	88 - 110
4-Bromofluorobenzene (Surrogate)	BQL1516	Matrix Spike	0715259-01	ND	9.9600	10.000	ug/L	99.6	86 - 115
		Matrix Spike Duplicate	0715259-01	ND	10.130	10.000	ug/L	101	86 - 115



LABORATORIES, INC.

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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 01/03/2008 16:11

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		
									Percent Recovery	RPD	Lab Quals
Benzene	BQL1516	BQL1516-BS1	LCS	22.320	25.000	0.50	ug/L	89.3	70 - 130		
Toluene	BQL1516	BQL1516-BS1	LCS	21.710	25.000	0.50	ug/L	86.8	70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BQL1516	BQL1516-BS1	LCS	10.840	10.000		ug/L	108	76 - 114		
Toluene-d8 (Surrogate)	BQL1516	BQL1516-BS1	LCS	10.310	10.000		ug/L	103	88 - 110		
4-Bromofluorobenzene (Surrogate)	BQL1516	BQL1516-BS1	LCS	10.150	10.000		ug/L	102	86 - 115		



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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 01/03/2008 16:11

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	BQL1516	BQL1516-BLK1	ND	ug/L	0.50		
Ethylbenzene	BQL1516	BQL1516-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BQL1516	BQL1516-BLK1	ND	ug/L	0.50		
Toluene	BQL1516	BQL1516-BLK1	ND	ug/L	0.50		
Total Xylenes	BQL1516	BQL1516-BLK1	ND	ug/L	1.0		
Ethanol	BQL1516	BQL1516-BLK1	ND	ug/L	1000		
Total Purgeable Petroleum Hydrocarbons	BQL1516	BQL1516-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BQL1516	BQL1516-BLK1	106	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BQL1516	BQL1516-BLK1	104	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BQL1516	BQL1516-BLK1	99.1	%	86 - 115 (LCL - UCL)		



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

Project: 1871
Project Number: [none]
Project Manager: Anju Farfan

Reported: 01/03/2008 16:11

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

BC LABORATORIES INC.

SAMPLE RECEIPT FORM

Form ID: 01/21/04 Page 1 of 1

Submission #: 071525

Project Code:

SHIPPING INFORMATION

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

CONTAINER

Refrigerated 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 All description(s) match COC? Yes No COC Received
 YES NOIce Chest ID: _____
Temperature: 3.7 °C
Thermometer ID: 46Emissivity
Container: 1.0Date/Time: 12/14/07
Analyst Init: SP

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	A3									
40ml VOA VIAL										
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 801SM										
QT QAQC										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: _____

Sample Numbering Completed By: FMD

Date/Time: 12/26/07 12:59

BC LABORATORIES, INC.

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

CHAIN OF CUSTODY

Analysis Requested

0715259

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	8260 full list w/ oxygenates	BTEX/MTBE BY 8260B	ETHANOL by 8260B	TPH -G by GC/MS	Turnaround Time Requested
Address: 96 MacArthur Blvd.		21 Technology Drive Irvine, CA 92618-2302 Attn: Anju Farfan									
City: OAKLAND		4-digit site#: 1871									
		Workorder #									
State: CA	Zip:	Project #: 154771									
Conoco Phillips Mgr: Bill Borgst		Sampler Name: Rick R.									
Lab#	Sample Description	Field Point Name	Date & Time Sampled								
	-1 MW-7		12/19/07-0610 AM					X	XX	STD	
Comments: GLOBAL ID: T0600101493				Relinquished by: (Signature)	Received by:		Date & Time				
							12/19/07-1230				
				Relinquished by: (Signature)	Received by:		Date & Time				
			12/19/07 1910								
Relinquished by: (Signature)	Received by:		Date & Time								
			12-19-07 1740								
 CHK BY: DISTRIBUTION: SUB OUT:											

R. Raymond 12-19-07 1745 Class 12/19/07 2005

STATEMENTS

Purge Water Disposal

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

Limitations

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