ConocoPhillips
76 Broadway
Sacramento, California 95818

October 25, 2010

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

Re: **Quarterly Summary Report – Third Quarter 2010**
76 Station no. 5781
3535 Pierson Street
Oakland, CA

Dear Ms. Jakub,

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact me at (916) 558-7612.

Sincerely,

Bill Borgh

Bill Borgh
Site Manager – Risk Management and Remediation

Attachment

October 25, 2010

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

Re: QUARTERLY SUMMARY REPORT
Third Quarter 2010
76 Service Station No. 5781
3535 Pierson Street
Oakland, California
Case No. RO253
Delta Project C1Q5781604

DELTA

Dear Ms. Jakub:

On behalf of ConocoPhillips (COP), Delta Consultants (Delta) is forwarding the *Groundwater Monitoring Report- July through September 2010* for the following location:

Service Station	**Location**
ConocoPhillips Site No. 5781	3535 Pierson Street. Oakland, California

Sincerely,
Delta Consultants

Jan Wagoner
Sr. Project Manger

REGISTERED PROFESSIONAL GEOLOGIST
JAMES B. BARNARD
No. 7478
Expires: 9/12
GEOLOGY
STATE OF CALIFORNIA

James B. Barnard, P.G.
California Registered Professional Geologist No. 7478

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

a member of Inogen Environmental Alliance

11050 White Rock Road Suite 110 Rancho Cordova, California 95670 USA
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QUARTERLY SUMMARY REPORT
THIRD QUARTER 2010
76 Station No. 5781
3535 Pearson Street
Oakland, California
Alameda County

SITE BACKGROUND

The subject site is an active service station located on the northwest corner of San Leandro Street and 66th Avenue in Oakland, California. Station facilities currently include two gasoline underground storage tanks (USTs), a 550-gallon waste oil UST, three dispenser islands under canopies, and a service station building. The product dispensers utilize a balanced vapor recovery system.

Historical data indicate that the site has been a service station since 1947. Renovation of the site first occurred in 1967, when the size of the site expanded to its current configuration.

PREVIOUS SITE ACTIVITY

1989 Two 10,000- gallon gasoline USTs, one 280-gallon waste oil UST and product piping were removed from the site. Confirmation soil samples collected from the UST pit indicated low residual maximum concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, and total oil and grease (TOG). After confirmation soil sampling, approximately 5,000 gallons of groundwater were removed from the UST pit and disposed offsite. A groundwater sample was collected and analyzed after recharge of the UST pit and contained TPHg at 7,900 parts per billion (ppb) and benzene at 850 ppb. Confirmation soil samples collected from the product piping trench indicated low maximum residual concentrations of TPH-G and benzene.

April 1990 Three exploratory borings (MW-1, MW-2, and MW-3) were advanced onsite with the intention that they would be converted into monitoring wells, however no groundwater was encountered down to a depth of 40-50 feet below ground surface (bgs). The borings were backfilled.

July 1990 Two exploratory borings (EB-1, EB-2) were advanced onsite to 34.5 and 38 ft bgs, near the location of the former waste oil UST pit. Groundwater was encountered at 33.5 and 36.7 feet bgs. Groundwater was sampled from both borings, and then the borings were backfilled with neat cement. TPHd was detected only in the in groundwater sample from EB-1 at 6.7 ppb, benzene was detected only in the groundwater sample from EB-1 at 0.61 ppb, toluene (1.5 ppb) and xylenes (1.0 ppb) were detected at equal concentrations in groundwater from both borings.

December 1990 A 2" diameter monitoring well was installed onsite (MW-A) to a depth of 45 feet. Groundwater was encountered at 33 feet bgs during the well installation. The well was incorporated into (first) a semi-annual sampling and (subsequent) annual sampling schedule. Groundwater samples were analyzed for TPHg, TPHd, Benzene, Toluene, Ethyl-benzene, Total Xylenes (BTEX), MTBE into 2010.

October 2003 Site environmental consulting responsibilities were transferred to TRC. TRC performed a baseline site assessment, advancing five soil borings onsite (SB-1 through SB-5). Four of the soil borings were clustered around the location of the dispenser islands and USTs, and one near the waste oil tank. Maximum boring depth ranged from 24 ft to 54 ft bgs. Groundwater was encountered at depths ranging from 19.5 ft to 39 ft bgs in 3 wells, and was not encountered in 2 wells to a total depth of 54 ft. Soil samples collected from the borings indicated up to 1,100 mg/kg of total purgeable petroleum hydrocarbons (TPPH). The only detection from groundwater samples (three borings and MW-A) was lead at 0.18 mg/L.

April 2008 The second generation waste oil tank (WOT) was removed. A total of four soil samples were collected from the WOT cavity (WO1 – WO4). One base sample was collected from beneath the WOT at a depth of 9.0 feet bgs, and three sidewall samples were collected at a depth of either 6.5 or 7.0 feet bg. A fourth sidewall sample, from the southeast wall of the pit, was unable to be collected due to proximity of the station building. A composite soil sample (Composite) was also collected from materials stockpiled during removal and sampling activities. (Delta, 2008)

No petroleum hydrocarbons (including TPHd) or fuel oxygenates, total oil and grease, VOCs, SVOCs, or PCBs were detected in any of the four soil samples, or the composite sample. Samples were also analyzed for CAM 17 metals, and each of the five samples contained arsenic at a concentration above the RWQCB ESL of 1.5 mg/kg (commercial). Concentrations ranged from 3.2 mg/kg to 6.2 mg/kg, and appear to represent background conditions at the site. All other CAM 17 metal detections were below the commercial ESLs set by the RWQCB. (Delta, 2008)

No over-excavation activities were conducted, the WOT was not replaced, and the stockpiled materials were backfilled into the remaining cavity following receipt of laboratory results. (Delta, 2008).

September 24, 2009 Delta submitted the *Workplan for Additional Assessment* to investigate residual fuel and lead concentration in soil and groundwater beneath the site. The workplan was designed to carry out recommendations made in the 2008 Site Conceptual Model, and would allow for the collection of confirmation sample results prior to making a formal Case Closure Request.

February 2010 Delta met Cruz Brothers Utility Locators on-site in preparation for additional site assessment.. During routine utility marking activities, Delta and subcontractors identified a pronounced hydrocarbon odor emanating from a storm drain manhole southwest of the fuel USTs in the sidewalk and along Pierson Street.

March 5, 2010 Concerns over the storm drain manhole led to the preparation of an Unauthorized Release Report (URR) submitted by ConocoPhillips to the Alameda County Department of Environmental Health (ACEH). Highest reported PID readings from the manhole were recorded at 495 ppm on February 17, 2010.

March 11th through 12th, 2010 Delta oversaw the advancement of four soil borings: SWC-2, SWD-2, SB-6 and SB-7. Details of the investigation were submitted to ACEH in the May 7th, 2010 Additional *Assessment Report, Monitoring Well Installation Work Plan and Storm Sewer Repair Comments.*

April 2010 On April 28, 2010 Innovative Construction Solutions (ICS) placed a permanent patch on the portion of the storm drain manhole that had been identified (04/08/10) to be seeping water into the storm drain. Mr. Mike Fahey of the Oakland Fire Department and representatives from Delta and ConocoPhillips were on-site to observe this repair.

June 2010 In response to the March site assessment activities, ACEH prepared a letter to ConocoPhillips, dated May 21, 2010. The letter requested additional investigation and preparation of a Site Conceptual Model Update. On June 3rd & 4th, 2010 Delta proceeded to advance and install two groundwater monitoring wells: MW-4 and MW-5 and advance one additional soil boring: SB-8. Details of the investigation are forthcoming, and will be submitted in the form of a combined Site Assessment and Site Conceptual Model (SCM) Update.

July 2010 Delta submitted the above referenced SCM, titled *Assessment Report, Site Conceptual Model, and Additional Assessment Workplan*.

SENSITIVE RECEPTORS

The California Department of Water Resources database indicates the presence of four active water wells nearby the site. The four active wells are reported to be located in East Bay Regional Park District land, located approximately 2,193 feet northeast of the site.

MONITORING AND SAMPLING

Prior to the second quarter 2010, one groundwater monitoring well, MW-A, existed onsite. The well was sampled annually. With the addition of MW-4 and MW-5 during the June 2010 assessment activities, a total of three wells now comprise the groundwater monitoring network. Beginning in this second quarter 2010 event, all wells will follow a quarterly sampling schedule until further notice.

Third quarter sampling activities were preformed on September 29, 2010. Depth to groundwater ranged from 12.62 feet below top of casing (TOC) in well MW-4, to 15.50 feet below TOC in well MW-A. Groundwater flow direction and gradient was interpreted as 0.1 feet per foot to the northwest. This is congruent with the flow direction and gradient from the previous sampling event (6/6/10).

All monitoring and sampling activities for the site during the third quarter 2010 were performed by TRC and reviewed and certified by a TRC California Professional Geologist.

This groundwater flow and gradient is suspect when compared to the topography in the vicinity of the site. This discrepancy may be related to different screen intervals for MW-4 and MW-5 (10-20 feet bgs and 15-25 feet bgs, respectively) when compared to previously existing well MW-A (25-45 feet bgs). In the previously noted SCM update, cross sections were provided and additional groundwater wells screened similar to MW-4 and MW-5 were proposed to better clarify groundwater flow and gradient at the site.

All wells were analyzed for total petroluem hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg), and methanol by Environmental Protection Agency (EPA) method 8015, as well as benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX), and eight fuel oxygenates [methyl tert butyl ether (MTBE), tert butyl alcohol (TBA), ethylene dibromide (EDB), 1,2 dicholoroethane (1,2-DCA), diisopropyl ether (DIPE), ethyl tert butyl ether (ETBE), tert amyl methyl ether (TAME), and ethanol] by EPA method 8260.

Analytical results from the Third Quarter 2010 event are discussed below:

TPHd: TPHd was above laboratory indicated reporting limits in groundwater samples collected from one of the three wells sampled with a concentration of 64,000 µg/L in MW-5 during the current sampling event. This is an increase from a maximum concentration of 3,000 µg/L in MW-5 during the previous sampling event (6/6/10)

TPHg: TPHg was above laboratory indicated reporting limits in groundwater samples collected from one of the three wells sampled with a concentration of 29,000 µg/L in MW-5 during the current sampling event. This is consistent with a maximum concentration 29,000 µg/L in MW-5 during the previous sampling event.

Benzene: Benzene was above laboratory indicated reporting limits in groundwater samples collected from one of the three wells sampled with a concentration of 220 µg/L in MW-5 during the current sampling event. This is an increase from a maximum concentration of 580 µg/L in MW-5 during the previous sampling event.

Toluene: Toluene was above laboratory indicated reporting limits in groundwater samples collected from on of the three wells sampled with a concentration of 4,100 µg/L in MW-5 during the current sampling event. This is an decrease from a maximum concentration of 6,800 µg/L in MW-5 during the previous sampling event.

Ethylbenzene: Ethylbenzene was above laboratory indicated reporting limits in groundwater samples collected from one of the three wells sampled with concentration of 2,500 µg/L in MW-5 during the current sampling event. This is

an increase from a maximum concentration of 850 µg/L in MW-5 during the previous sampling event.

Total Xylenes: Total Xylenes were above laboratory indicated reporting limits in groundwater samples collected from on of the three wells sampled with a maximum concentration of 23,000 µg/L in MW-5. This is an increase from a maximum concentration of 7,200 µg/L in MW-5 during the previous sampling event.

MTBE: MTBE was above laboratory indicated reporting limits in groundwater samples collected from all of the three wells sampled with a maximum concentration of 52 µg/L in MW-5 during the current sampling event. This is an increase from a maximum concentration of 5.4 µg/L in MW-5 during the previous sampling event.

Other Fuel Oxygenates: TBA, EDB, 1,2-DCA, DIPE, ETBE, TAME, ethanol, and methanol, were all below laboratory indicated reporting limits in all of the three wells sampled during the current sampling event. This is concistent with the previous sampling event.

A copy of TRC's *Groundwater Monitoring Report – July through September 2010,* dated October 14, 2010 is included as Attachment A.

REMEDIATION STATUS

Remediation is not currently being conducted at the site.

RECENT CORRESPONDENCE

May 21, 2010 In review of Delta's (May 7, 2010) *Additional Assessment Report, Monitoring Well Installation Work Plan and Storm Sewer Repair,* ACEH submitted a letter to ConocoPhillips, requesting that Delta proceed with well installations to characterize the source area. Assessment activities are to be reported in the form of a combined Site Assessment Report and Site Conceptual Model Update.

CONCLUSIONS AND RECOMMENDATIONS

Prior to the second quarter 2010, Delta recommended case closure for the site. Continued monitoring of the one onsite well, (MW-A) showed that historically, petroleum hydrocarbon concentrations in MW-A have been either low or below the laboratory's indicated reporting limits. With the exception of two sampling events (February of 1996 and March of 2001), where TPHd was detected at respective concentrations of 120 µg/L and 131 µg/L, all constituent concentrations detected in MW-A have been below the California Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs). (RWQCB, May 2008).

The Site Conceptual Model dated November 20, 2008 proposed confirmation sampling, by advancing a total of four boreholes that would: evaluate the mass of residual impacted soils in vicinity of the former waste oil tank/over excavation

limits, evaluate the detection of total oil and grease (TOG) in groundwater from boring SB-5, and evaluate the detection of TPHg in soil boring SB-3. Without agency response, Delta then submitted the September 24, 2009 *Workplan for Additional Assessment*, in order to obtain confirmation samples before making a formal Case Closure Request.

In March 2010 additional assessment confirmed that residual petroleum hydrocarbon concentrations remain on-site. TPHg was reported at 2,500 µg/L in a grab groundwater sample collected from boring SB-6 (near recently installed monitoring well MW-5) indicating the presence of petroleum hydrocarbons in the area southeast of the USTs. TOG was reported in soil samples collected at 10 feet bgs in borings SWC-2 and SWD-2 near the former waste oil USTs at concentrations of 7,700 µg/L and 870 µg/L, respectively. It was noted that samples collected from these borings at 15 feet were at or below the laboratory indicated reporting limits. Also, groundwater samples collected from borings SB-7 and SWC-2 reported TOG levels below laboratory indicated reporting limits.

The identification of petroleum hydrocarbon odors emanating from a storm drain manhole along Pierson Street, combined with the need to further assess the area southwest of the gasoline USTs led to the June 2010 field activities, which included the installation of groundwater monitoring wells MW-4 and MW-5, and advancement of soil boring SB-8. A utility survey was performed to identify the location and depth of utilities in the vicinity of the service station.

The addition of the two groundwater monitoring wells also allows for the first established gradient and flow direction for the site. Continued M&S events, and the potential installation of additional monitoring wells will allow for the development of a Groundwater Flow (Rose) Diagram and will also allow for the interpretation of historical groundwater flow across the site.

Delta believes that there is still a discrepancy in the interpreted groundwater flow direction and gradient as it is contradictory to surface topography. A possible cause for this discrepancy could be the difference in screened intervals between the existing well MW-A (25-45 feet bgs), and the newly installed wells (10-20 feet bgs and 15-25 feet bgs, respectively).

THIRD QUARTER 2010 ACTIVITIES

- TRC performed monitoring and sampling of the groundwater monitoring well network on September 29, 2010, and prepared and submitted their results in *the Groundwater Monitoring Report – July through September 2010*, dated October 14, 2010.

- Delta prepared and submitted the *Quarterly Summary Report – Third Quarter 2010*.

- Delta performed additional site assessment activities in June, 2010. Activities included the installation of two groundwater monitoring wells MW-4 and MW-5, and the advancement of one additional soil boring SB-8.

- Delta submitted the report *Assessment Report, Site Conceptual Model, and Additional Assessment Workplan*, dated June 30, 2010. This report recommended to installation of four additional monitoring wells, intended to address hydrocarbon impact surrounding the UST pit, as well as the discrepancy in the groundwater flow direction and gradient.

- Delta performed periodic monitoring of PID and LEL readings in storm drains in the vicinity of the site. Results of this monitoring were presented under separate cover as part of the SCM update and assessment report.

- On April 28, 2010 a leak in the storm drain manhole located in the sidewalk adjacent to the UST's at the site was repaired. Follow-up inspections of this repair indicate the repair is holding and no additional leaking is observed.

FOURTH QUARTER 2010 PLANNED ACTIVITIES

- TRC will perform quarterly monitoring and sampling of the groundwater monitoring well network, and prepare a quarterly groundwater monitoring report.

- Delta will prepare a quarterly summary report.

- Delta will implement the scope of work discussed in their *Assessment Report, Site Conceptual Model, and Additional Assessment Workplan*, and prepare a report detailing their findings.

- Delta will continue to perform periodic monitoring of PID and LEL readings in storm drains in the vicinity of the site.

REMARKS

The descriptions, conclusions, and recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. For any reports cited that were not generated by Delta, the data from those reports is used "as is" and is assumed to be accurate. Delta does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were conducted. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

CONSULTANT: Delta Consultants

Attachments:

Attachment A: Groundwater Monitoring Report –July through September 2010

Attachment A

Quarterly Monitoring Report
April through June 2010

123 Technology Drive West
Irvine, CA 92618

949.727.9336 PHONE
949.727.7399 FAX

www.TRCsolutions.com

DATE: October 14, 2010

TO: ConocoPhillips Company
76 Broadway
Sacramento, CA 95818

ATTN: MR. BILL BORGH

SITE: 76 STATION 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

RE: GROUNDWATER MONITORING REPORT
JULY THROUGH SEPTEMBER 2010

Dear Mr. Borgh:

Please find enclosed our Groundwater Monitoring Report for 76 Station 5781, located at 3535 Pierson Street, 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. Jan Wagoner, Delta Consultants (2 copies)

Enclosures
20-0400/5781R10.QMS

GROUNDWATER MONITORING REPORT
JULY THROUGH SEPTEMBER 2010

76 STATION 5781
3535 Pierson Street
Oakland, California

Prepared For:

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

By:

Dennis E. Jensen

PROFESSIONAL GEOLOGIST
DENNIS E. JENSEN
No. 3531
STATE OF CALIFORNIA

Senior Project Geologist, Irvine Operations

Date: 10/14/10

TRC

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 Table 2b: Additional Historic Analytical Results Table 2c: Additional Historic Analytical Results Table 2d: Additional Historic Analytical Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase TPH-G Concentration Map Figure 4: Dissolved-Phase Benzene Concentration Map Figure 5: Dissolved-Phase MTBE Concentration Map Figure 6: Dissolved-Phase TPH-D Concentration Map
Graphs	Groundwater Elevation vs. Time TPH-G Concentrations vs. Time TPH-D Concentrations vs. Time
Field Activities	General Field Procedures Field Monitoring Data Sheet – 9/29/10 Groundwater Sampling Field Notes – 9/29/10
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

Summary of Gauging and Sampling Activities
July 2010 through September 2010
76 Station 5781
3535 Pierson Street
Oakland, CA

Project Coordinator: **Bill Borgh**
Telephone: **916-558-7612**
Water Sampling Contractor: ***TRC***
Compiled by: **Daniel Lee**
Date(s) of Gauging/Sampling Event: **9/29/2010**

Sample Points

Groundwater wells: **3** onsite, **0** offsite Points gauged: **3** Points sampled: **3**
Purging method: **Submersible pump**
Purge water disposal: **Crosby and Overton treatment facility**
Other Sample Points: **0** Type: **--**

Liquid Phase Hydrocarbons (LPH)

Sample Points with LPH: **0** Maximum thickness (feet): **--**
LPH removal frequency: **--** Method: **--**
Treatment or disposal of water/LPH: **--**

Hydrogeologic Parameters

Depth to groundwater (below TOC): Minimum: **12.62 feet** Maximum: **15.5 feet**
Average groundwater elevation (relative to available local datum): **140.05 feet**
Average change in groundwater elevation since previous event: **-0.29 feet**
Interpreted groundwater gradient and flow direction:
Current event: **0.03 ft/ft, north**
Previous event: **0.1 ft/ft, northwest (6/16/2010)**

Selected Laboratory Results

Sample Points with detected **Benzene:** **1** Sample Points above MCL (1.0 µg/l): **1**
Maximum reported benzene concentration: **220 µg/l (MW-5)**

Sample Points with **TPH-D** **1** Maximum: **64,000 µg/l (MW-5)**

Notes:

This report presents the results of groundwater monitoring and sampling activities performed by TRC. Please contact the primary consultant for other specific information on this site.

TABLES

TABLE KEY

STANDARD ABBREVIATIONS

--	=	not analyzed, measured, or collected
LPH	=	liquid-phase hydrocarbons
µg/l	=	micrograms per liter (approx. equivalent to parts per billion, ppb)
mg/l	=	milligrams per liter (approx. equivalent to parts per million, ppm)
ND<	=	not detected at or above laboratory detection limit
TOC	=	top of casing (surveyed reference elevation)
D	=	duplicate
P	=	no-purge sample

ANALYTES

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
1,2-DCA	=	1,2-dichloroethane (same as EDC, ethylene dichloride)

NOTES

1. Elevations are in feet above mean sea level. Depths are in feet below surveyed top-of-casing.
2. Groundwater elevations for wells with LPH are calculated as: Surface Elevation – Measured Depth to Water + (Dp x LPH Thickness), where Dp is the density of the LPH, if known. A value of 0.75 is used for gasoline and when the density is not known. A value of 0.83 is used for diesel.
3. Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures).
4. Comments shown on tables are general. Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report.
5. A "J" flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory.
6. Other laboratory flags (qualifiers) may have been reported. See the official laboratory report (attached) for a complete list of laboratory flags.
7. Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display. Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report.
8. Prior to the 1st quarter 2010, the word "monitor" was used in table comments interchangeably with the word "gauge". Starting in the 1st quarter 2010, the word "monitor" is used to include both "gauge" and "sample".

REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 5781 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 5781

Current Event

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

Historic Data

Table 2	Well/ Date	Depth to Water	LPH Thickness	Ground-water Elevation	Change in Elevation	TPH-D	TPH-G 8015	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)
Table 2a	Well/ Date	TPH-G (GC/MS)	TBA	Ethanol (8260B)	Ethylene-dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Methanol	Total Oil and Grease	TRPH	Bromo-dichloro-methane
Table 2b	Well/ Date	Bromo-form	Bromo-methane	Carbon Tetra-chloride	Chloro-benzene	Chloro-ethane	2-Chloroethyl vinyl ether	Chloroform	Chloro-methane	Dibromo-chloro-methane	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene
Table 2c	Well/ Date	Dichloro-difluoro-methane	1,1-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	1,2-Dichloro-propane	cis-1,3-Dichloro-propene	trans-1,3-Dichloro-propene	Methylene chloride	1,1,2,2-Tetrachloro-ethane	Tetrachloro-ethene (PCE)	Trichloro-trifluoro-ethane
Table 2d	Well/ Date	1,1,1-Trichloro-ethane	1,1,2-Trichloro-ethane	Trichloro-ethene (TCE)	Trichloro-fluoro-methane	Vinyl chloride							

Table 1

CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 29, 2010

76 Station 5781

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-D (µg/l)	TPH-G 8015 (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4			**(Screen Interval in feet: 15-25)**											
9/29/2010	153.48	12.62	0.00	140.86	-1.49	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.3	
MW-5			**(Screen Interval in feet: 10-20)**											
9/29/2010	153.66	13.67	0.00	139.99	-1.72	64000	29000	220	4100	2500	23000	--	52	
MW-A			**(Screen Interval in feet:--)**											
9/29/2010	154.79	15.50	0.00	139.29	2.35	ND<1200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.63	

Table 1 a
ADDITIONAL CURRENT ANALYTICAL RESULTS
76 Station 5781

Date Sampled	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Methanol (µg/l)
MW-4								
9/29/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100
MW-5								
9/29/2010	ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<1000
MW-A								
9/29/2010	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

December 1990 Through September 2010

76 Station 5781

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-D (µg/l)	TPH-G 8015 (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4			**(Screen Interval in feet: 15-25)**											
6/16/2010	153.48	11.13	0.00	142.35	--	ND<50	58	ND<0.50	9.7	1.3	16	--	5.4	
9/29/2010	153.48	12.62	0.00	140.86	-1.49	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	7.3	
MW-5			**(Screen Interval in feet: 10-20)**											
6/16/2010	153.66	11.95	0.00	141.71	--	3000	29000	580	6800	850	7200	--	ND<50	
9/29/2010	153.66	13.67	0.00	139.99	-1.72	64000	29000	220	4100	2500	23000	--	52	
MW-A			**(Screen Interval in feet: --)**											
12/18/1990	--	--	--	--	--	73	ND	ND	ND	ND	ND	--	--	
5/3/1991	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	
8/7/1991	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	
11/8/1991	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	
2/6/1992	151.80	19.88	0.00	131.92	--	ND	ND	ND	ND	ND	ND	--	--	
8/4/1992	151.80	18.95	0.00	132.85	0.93	ND	ND	ND	ND	ND	0.51	--	--	
2/10/1993	151.80	17.71	0.00	134.09	1.24	ND	ND	ND	ND	ND	ND	--	--	
2/10/1994	151.80	15.25	0.00	136.55	2.46	ND	ND	ND	0.52	ND	0.92	--	--	
2/9/1995	151.80	15.68	0.00	136.12	-0.43	ND	ND	ND	ND	ND	ND	--	--	
2/6/1996	151.80	12.52	0.00	139.28	3.16	120	ND	ND	ND	ND	2.1	--	--	
2/5/1997	151.80	13.01	0.00	138.79	-0.49	61	ND	ND	ND	ND	ND	--	ND	
2/2/1998	151.80	11.91	0.00	139.89	1.10	ND	ND	ND	ND	ND	ND	--	ND	
2/22/1999	151.80	11.24	0.00	140.56	0.67	ND	ND	ND	ND	ND	ND	--	ND	
2/26/2000	151.80	12.16	0.00	139.64	-0.92	ND	ND	ND	1.01	ND	ND	--	ND	
3/7/2001	151.80	11.91	0.00	139.89	0.25	131	ND	ND	ND	ND	ND	ND	ND	
2/22/2002	151.80	14.08	0.00	137.72	-2.17	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
December 1990 Through September 2010
76 Station 5781

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-D (µg/l)	TPH-G 8015 (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-A continued														
2/22/2003	151.80	14.41	0.00	137.39	-0.33	93	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	ND<2.0	
2/3/2004	151.80	14.32	0.00	137.48	0.09	60	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
2/18/2005	151.80	14.21	0.00	137.59	0.11	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	
3/29/2006	151.80	12.72	0.00	139.08	1.49	ND<200	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	0.54	
3/28/2007	151.80	13.98	0.00	137.82	-1.26	92	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/22/2008	151.80	12.68	0.00	139.12	1.30	ND<50	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/27/2009	151.80	14.35	0.00	137.45	-1.67	53	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/23/2010	151.80	19.55	0.00	132.25	-5.20	ND<58	--	--	--	--	--	--	--	
6/16/2010	154.79	17.85	0.00	136.94	4.69	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/29/2010	154.79	15.50	0.00	139.29	2.35	ND<1200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.63	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	TPH-G (GC/MS) (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Methanol (µg/l)	Total Oil and Grease (mg/l)	TRPH (mg/l)	Bromo-dichloro-methane (µg/l)
MW-4												
6/16/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	--	--	--
9/29/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	--	--	--
MW-5												
6/16/2010	--	ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<100	--	--	--
9/29/2010	--	ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<1000	--	--	--
MW-A												
2/6/1996		--	--	--	--	--	--	--	--	--	--	--
2/5/1997		--	--	--	--	--	--	--	--	--	--	--
3/7/2001		ND	ND	ND	ND	ND	ND	ND	--	--	--	--
2/22/2003	--	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
2/3/2004	--	ND<100	ND<500	ND<2.0	ND<0.50	ND<2.0	ND<2.0	ND<2.0	--	--	ND<1.0	ND<0.50
2/18/2005	--	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<2.0	--	ND<0.50
3/29/2006	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	ND<0.50
3/28/2007	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	--	ND<0.50
3/22/2008	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	--	ND<0.50
3/27/2009	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	--	ND<0.50
6/16/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	--	--	--
9/29/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	--	--	--

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	Bromo-form (µg/l)	Bromo-methane (µg/l)	Carbon Tetra-chloride (µg/l)	Chloro-benzene (µg/l)	Chloro-ethane (µg/l)	2-Chloroethyl vinyl ether (µg/l)	Chloroform (µg/l)	Chloro-methane (µg/l)	Dibromo-chloro-methane (µg/l)	1,2-Dichloro-benzene (µg/l)	1,3-Dichloro-benzene (µg/l)	1,4-Dichloro-benzene (µg/l)
MW-A												
2/3/2004	ND<2.0	ND<1.0	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<2.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50
2/18/2005	ND<2.0	ND<1.0	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/29/2006	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/28/2007	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/22/2008	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/27/2009	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

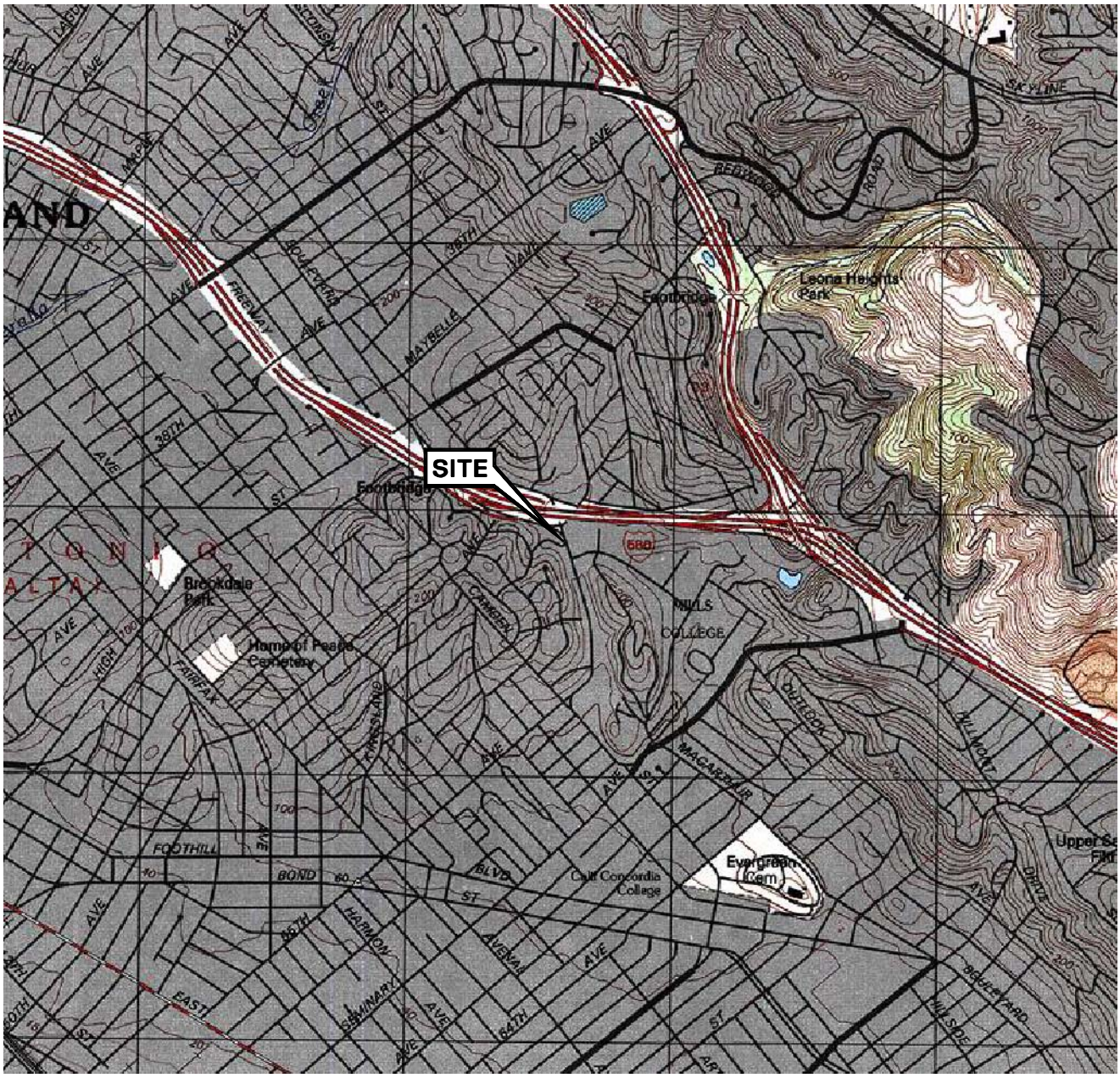
Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	Dichloro-difluoro-methane (µg/l)	1,1-DCA (µg/l)	1,1-DCE (µg/l)	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	1,2-Dichloro-propane (µg/l)	cis-1,3-Dichloro-propene (µg/l)	trans-1,3-Dichloro-propene (µg/l)	Methylene chloride (µg/l)	1,1,2,2-Tetrachloro-ethane (µg/l)	Tetrachloro-ethene (PCE) (µg/l)	Trichloro-trifluoro-ethane (µg/l)
MW-A												
2/3/2004	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50
2/18/2005	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50
3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50

Table 2 d
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	1,1,1-Trichloro-ethane (µg/l)	1,1,2-Trichloro-ethane (µg/l)	Trichloro-ethene (TCE) (µg/l)	Trichloro-fluoro-methane (µg/l)	Vinyl chloride (µg/l)
MW-A					
2/3/2004	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
2/18/2005	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

FIGURES



N

SOURCE:

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

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

SCALE 1: 24,000

TRC

76 STATION 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

VICINITY MAP

FIGURE 1

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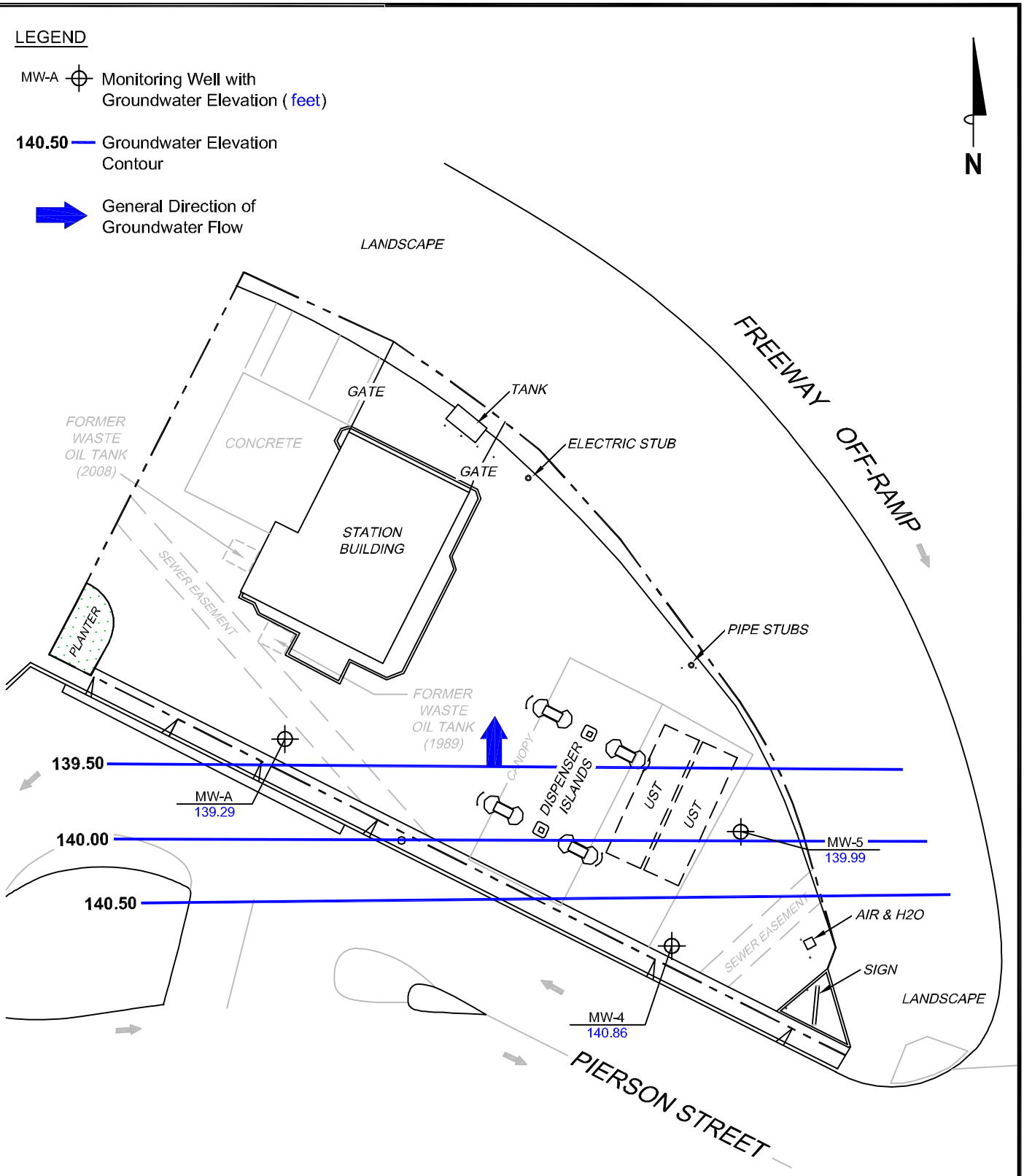

NOTES:

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

SCALE (FEET)

0 30

TRC	PROJECT: 173845 FACILITY: 76 STATION 5781 3535 PIERSON STREET OAKLAND, CALIFORNIA	**GROUNDWATER ELEVATION CONTOUR MAP** **September 29, 2010** **FIGURE 2**

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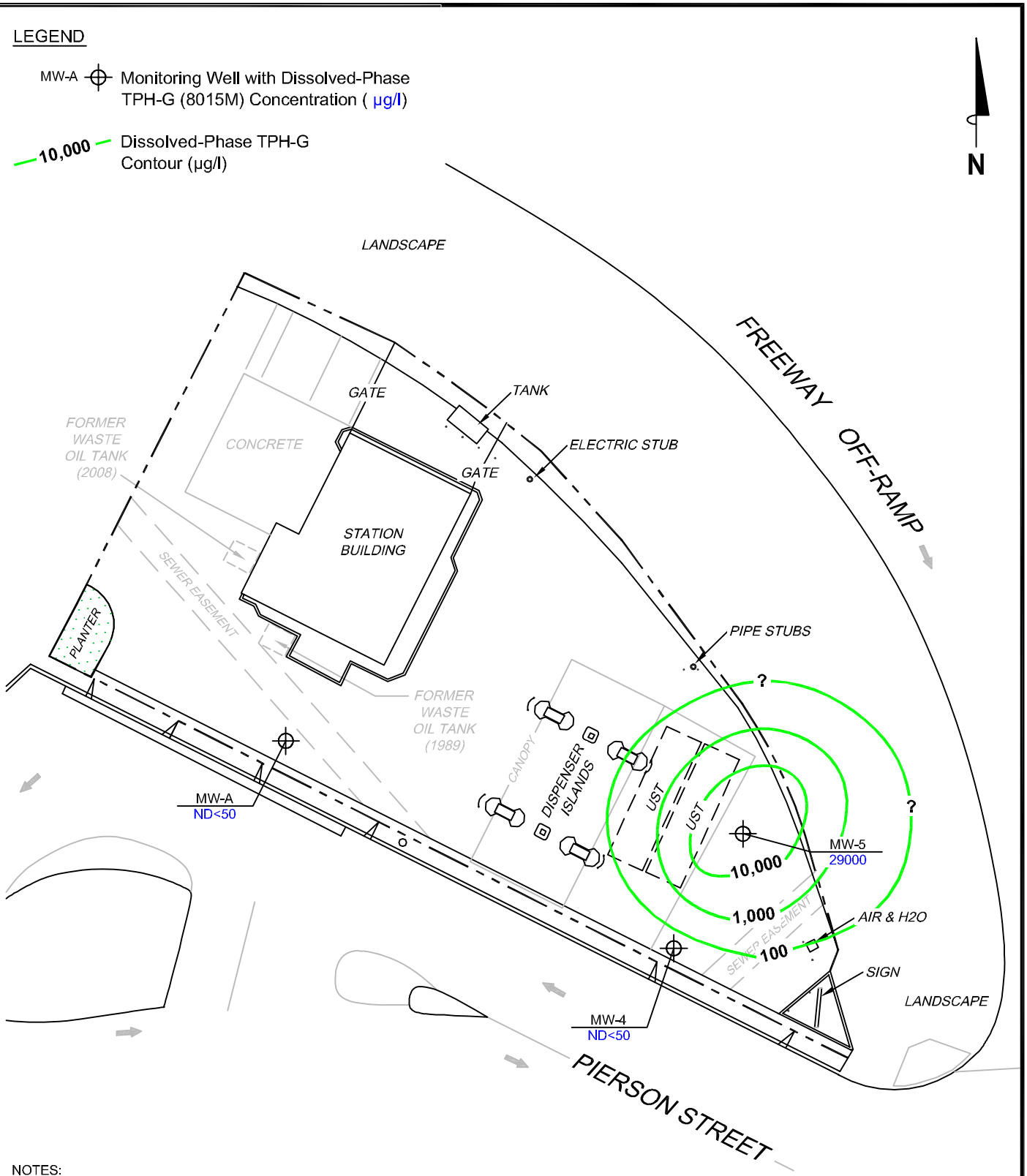


NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. TPH-G (8015M) = total petroleum hydrocarbons with gasoline; results obtained using EPA Method 8015M. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank.

SCALE (FEET)

0 30

TRC

PROJECT: 173845

FACILITY:

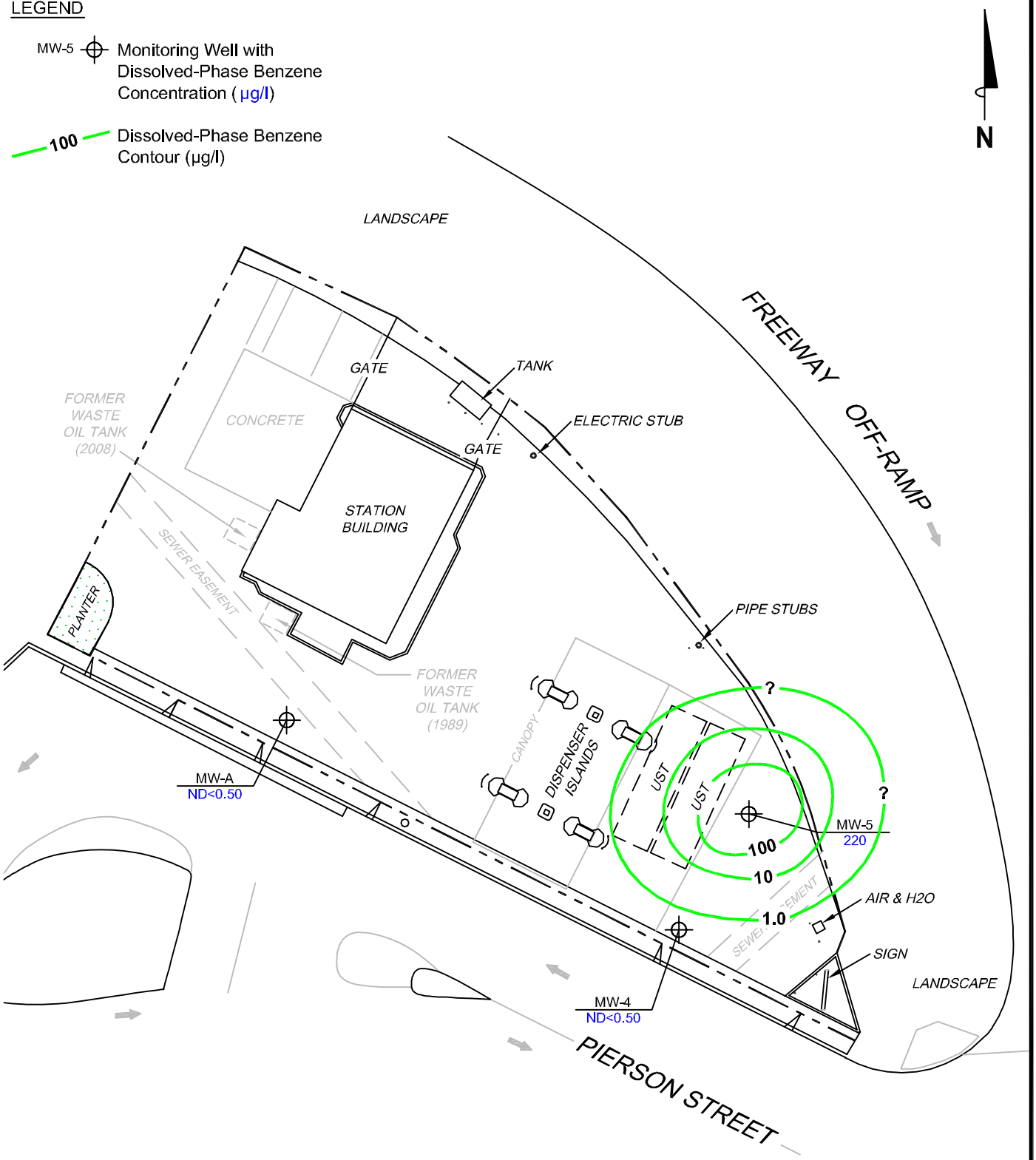
76 STATION 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

DISSOLVED-PHASE TPH-G CONCENTRATION MAP
September 29, 2010

FIGURE 3

L:\Graphics\QMS NORTH-SOUTH\x-5000\5781+\5781QMS(NEW).dwg Oct 14, 2010 - 1:59pm bschmidt

MS=1:30 5781-003



NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples.
µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report.
UST = underground storage tank.

SCALE (FEET)
0 30

L:\Graphics\QMS NORTH-SOUTH\x-5000\5781+\5781QMS(NEW).dwg Oct 14, 2010 - 1:59pm bschmidt

MS=1:30 5781-003

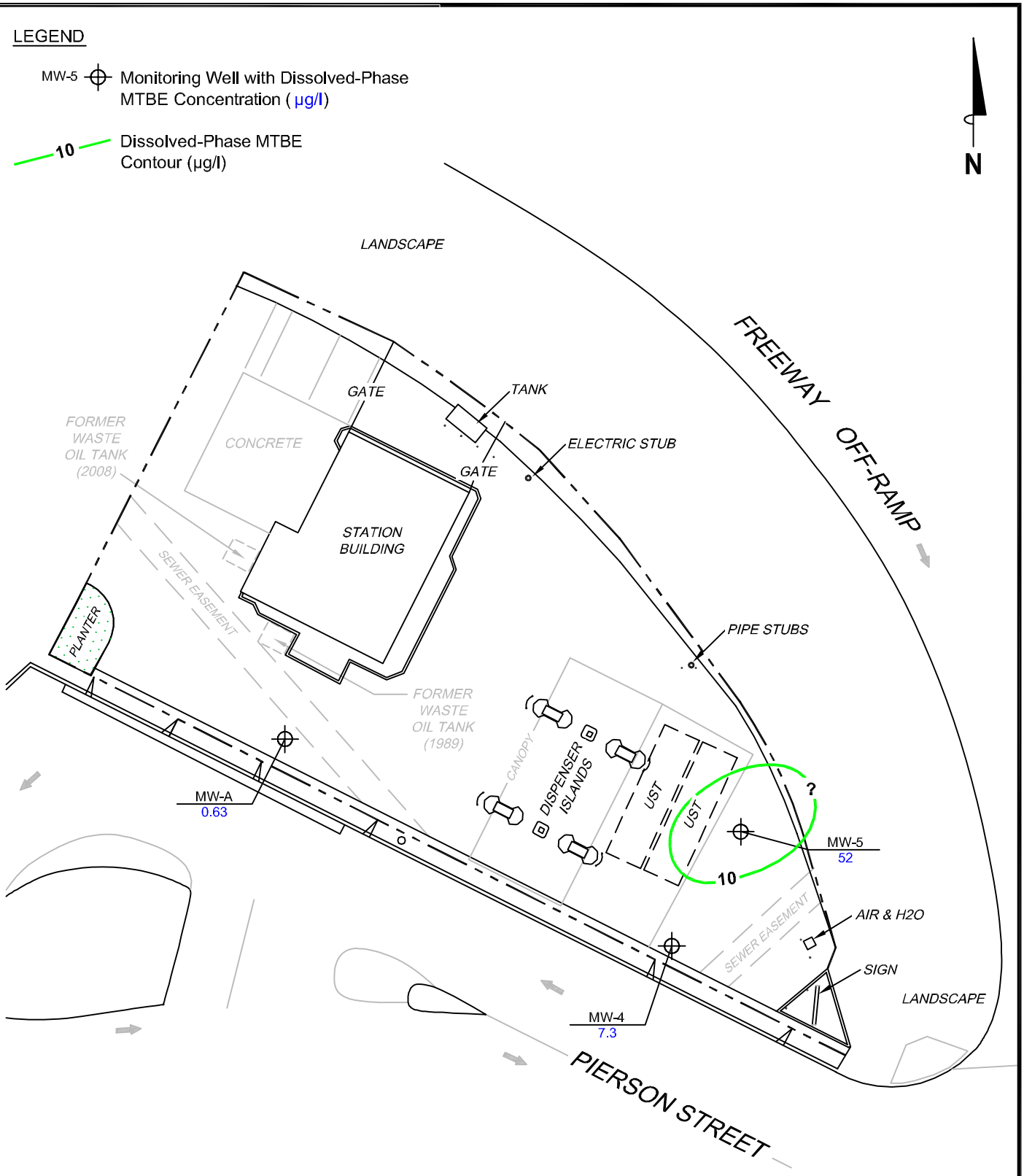
TRC

PROJECT: 173845

FACILITY:
76 STATION 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

DISSOLVED-PHASE BENZENE CONCENTRATION MAP
September 29, 2010

FIGURE 4



NOTES:

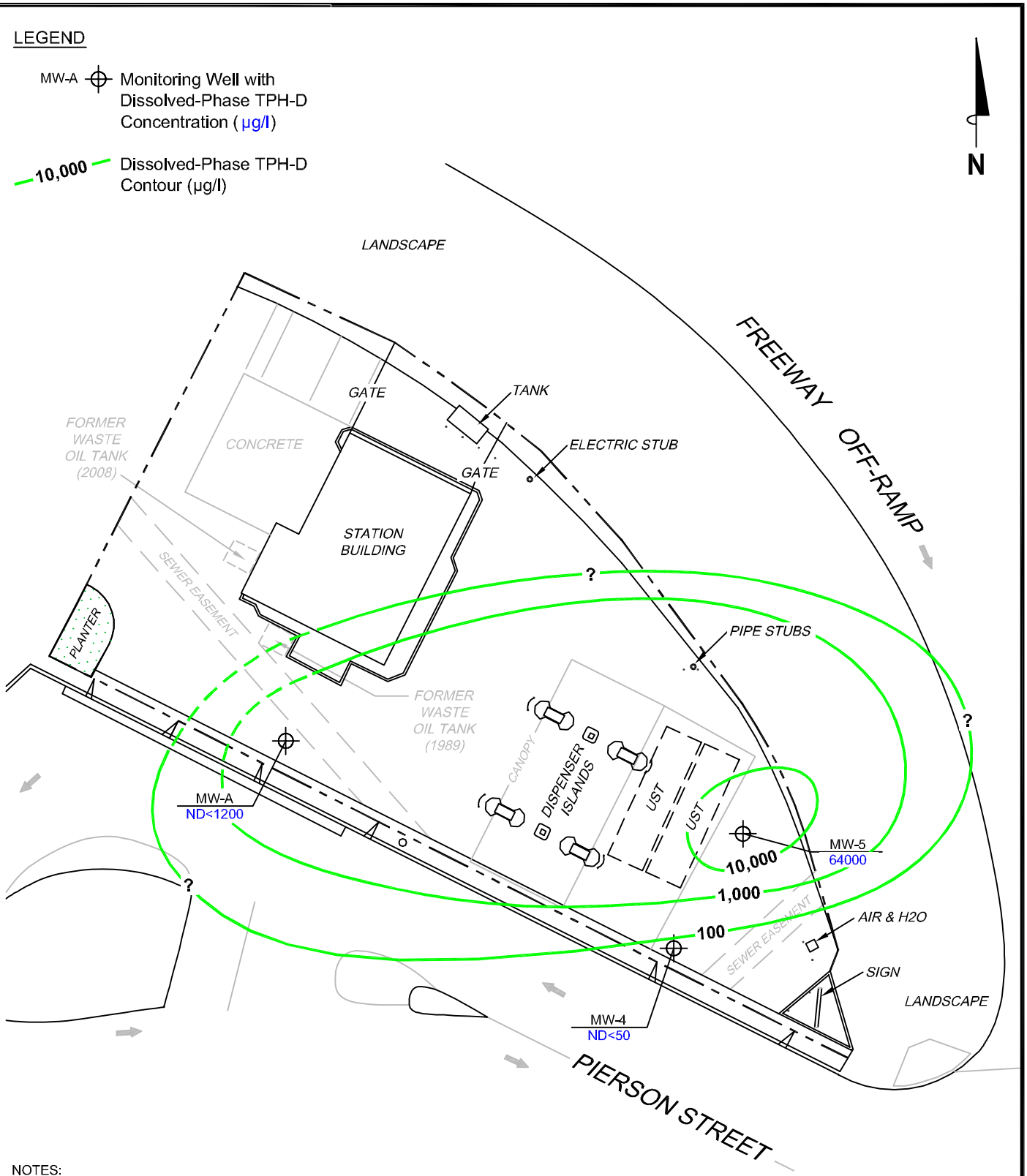
Contour lines are interpretive and based on laboratory analysis results of groundwater samples. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. UST = underground storage tank. Results obtained using EPA Method 8260B.

SCALE (FEET)

0 30

TRC	PROJECT: 173845 FACILITY: 76 STATION 5781 3535 PIERSON STREET OAKLAND, CALIFORNIA	**DISSOLVED-PHASE MTBE CONCENTRATION MAP** **September 29, 2010** **FIGURE 5**

MS=1:30 5781-003 L:\Graphics\QMS NORTH-SOUTH\x-5000\5781+\5781QMS(NEW).dwg Oct 14, 2010 - 1:59pm bschmidt



NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. TPH-D = total petroleum hydrocarbons as diesel. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. Dashes indicate contour based on non-detect at elevated detection limit. UST = underground storage tank. Results obtained using EPA Method 8015.

SCALE (FEET)

0 30

TRC

PROJECT: 173845

FACILITY:

76 STATION 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

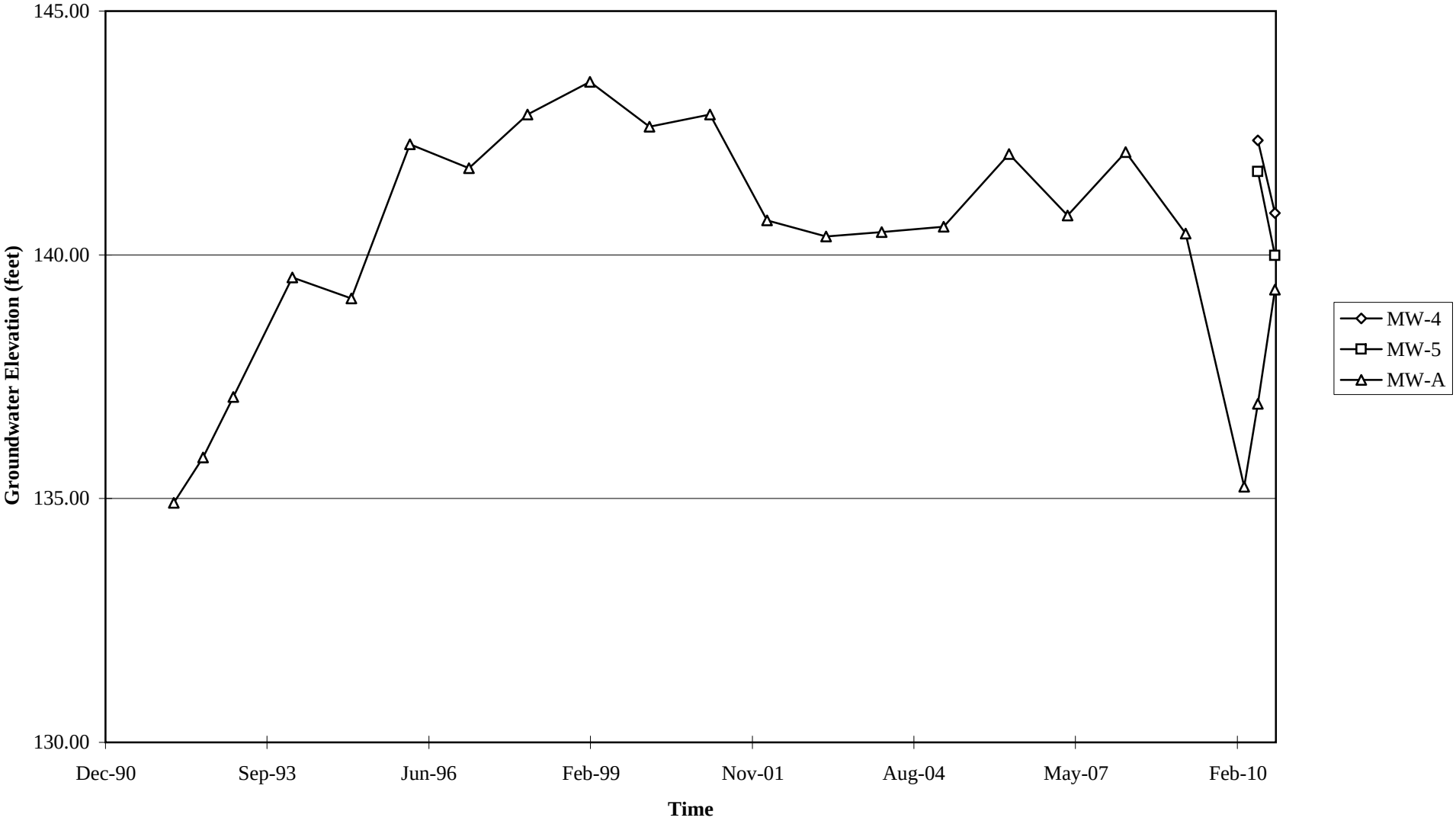
DISSOLVED-PHASE TPH-D CONCENTRATION MAP
September 29, 2010

FIGURE 6

MS=1:30 5781-003 L:\Graphics\QMS NORTH-SOUTH\x-5000\5781+\5781QMS(NEW).dwg Oct 14, 2010 - 2:00pm bschmidt

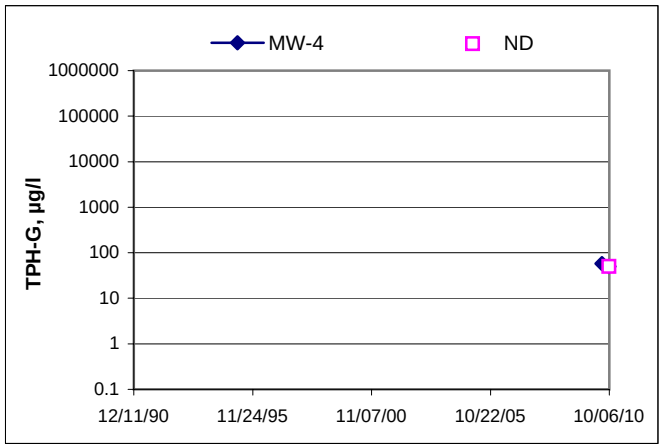
GRAPHS

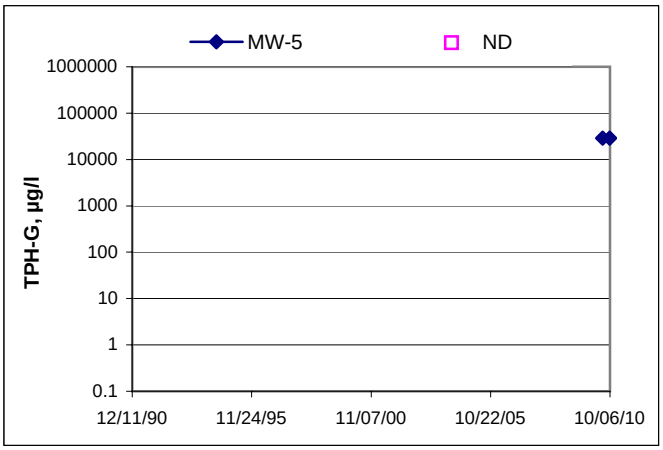
Groundwater Elevations vs. Time
76 Station 5781

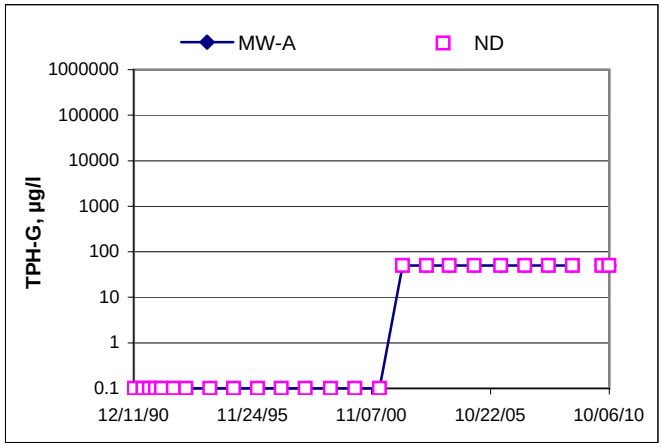


Elevations may have been corrected for apparent changes due to resurvey

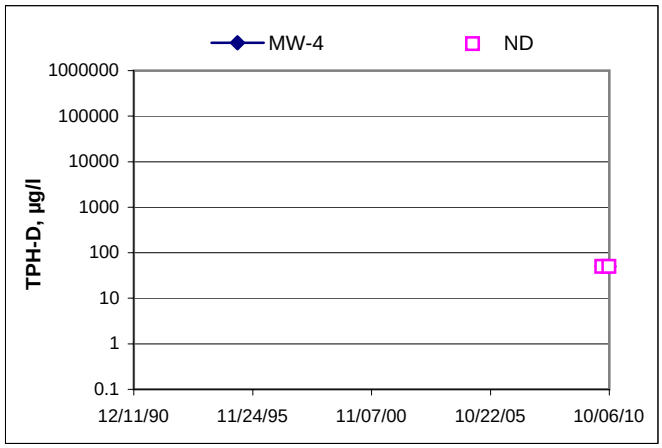
TPH-G Concentrations vs Time
76 Station 5781

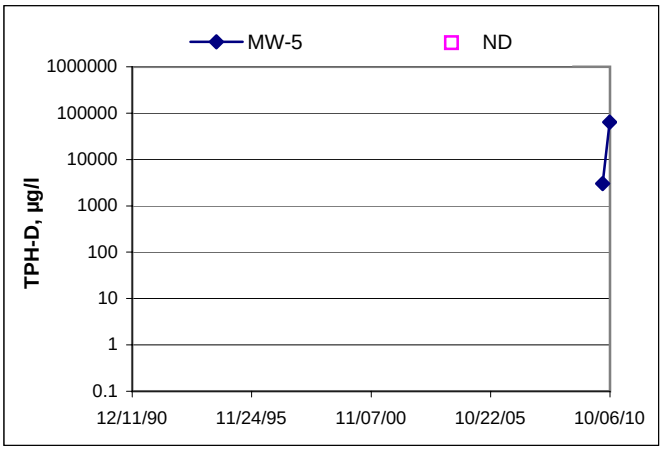


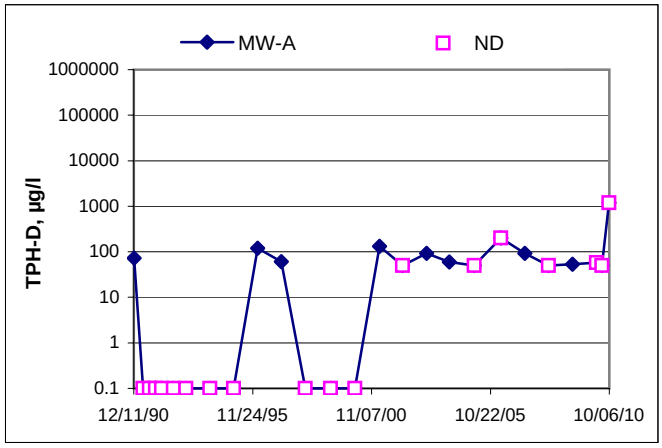




TPH-D Concentrations vs Time
76 Station 5781







GENERAL FIELD PROCEDURES

Groundwater Monitoring and Sampling Assignments

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

Fluid Level Measurements

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

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

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

Purging and Groundwater Parameter Measurement

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

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurements are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously until they become stable in general accordance with EPA guidelines.

Purge water is generally collected in labeled drums for disposal. Drums may be left on site for disposal by others, or transported to a collection location for eventual transfer to a licensed treatment or recycling facility. In some cases, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

Samples are collected by lowering a new, disposable, ½-inch to 4-inch polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

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

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

Sequence of Gauging, Purging and Sampling

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

Decontamination

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

Exceptions

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

FIELD MONITORING DATA SHEET

Technician: Basil's Job #/Task #: 173845 FA20 Date: 9-29-10

Site # 5781 Project Manager A. Collins Page 1 of 1

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-A	✓	0750	44.85	15.50	—	—	1040	2"
MW-4	✓	0759	24.70	12.62	—	—	1120	4"
MW-5	✓	0807	19.90	13.67	—	—	1030	4"

FIELD DATA COMPLETE	QA/QC	COC	WELL BOX CONDITION SHEETS
MANIFEST	DRUM INVENTORY	TRAFFIC CONTROL	

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: Barlo

Site: 5781 Project No.: 173845 Date: 9-29-10

Well No. MW-A Purge Method: Sub

Depth to Water (feet): 15.50 Depth to Product (feet): —

Total Depth (feet) 44.85 LPH & Water Recovered (gallons): —

Water Column (feet): 29.35 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 21.37 1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
0832			5	1432	21.6	7.27			
			10	1502	21.5	6.90			
	0838		15	1454	21.7	6.50			

Static at Time Sampled	Total Gallons Purged	Sample Time
25.45	15	1040

Comments: Dry at 15 Gls. Did not recover 2hrs.

Well No. MW-4 Purge Method: Sub

Depth to Water (feet): 12.62 Depth to Product (feet): —

Total Depth (feet) 24.70 LPH & Water Recovered (gallons): —

Water Column (feet): 12.08 Casing Diameter (Inches): 4

80% Recharge Depth(feet): 15.03 1 Well Volume (gallons): 8

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
0842			8	790.9	21.9	6.98			
	0849		16	859.9	21.4	6.86			
			24	—	—	—			

Static at Time Sampled	Total Gallons Purged	Sample Time
19.10	17	1120

Comments: Dry at 17 Gls. Did not recover 2hrs.

TRC

GROUNDWATER SAMPLING FIELD NOTES

Technician: Banks

Site: 5781 Project No.: 173845 Date: 9-29-10

Well No. MW-5 Purge Method: SUB

Depth to Water (feet): 13.67 Depth to Product (feet): —

Total Depth (feet) 19.90 LPH & Water Recovered (gallons): —

Water Column (feet): 6.23 Casing Diameter (Inches): 4

80% Recharge Depth(feet): 14.91 1 Well Volume (gallons): 5

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
0855			5	812.0	22.4	6.42			
	0900		10	—	—	—			
			15	—	—	—			

Static at Time Sampled	Total Gallons Purged	Sample Time
14.49	7	1030

Comments: Dry at 7 Gls Did not recover 45 Min

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 (µS/cm)	Temperature (F , C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									

Static at Time Sampled	Total Gallons Purged	Sample Time

Comments:

TRC

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 10/14/2010

Anju Farfan

TRC
123 Technology Drive
Irvine, CA 92618

RE: 5781
BC Work Order: 1013646
Invoice ID: B088373

Enclosed are the results of analyses for samples received by the laboratory on 9/29/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Table of Contents

BC LABORATORIES, INC.
4100 Atlas Court Bakersfield, CA 93308
(661) 327-4911 FAX (661) 327-1918

CHAIN OF CUSTODY

10-136640

Analysis Requested

Bill to: Conoco Phillips/ TRC	Consultant Firm: TRC
Address: 3535 Pierson St.	21 Technology Drive Irvine, CA 92618-2302 Attn: Anju Farfan
City: Oakland	4-digit site#: 5781
	Workorder # 01470-4512981281
State: CA Zip:	Project #: 173845
Conoco Phillips Mgr: Bill Bergh	Sampler Name: Banlio

MATRIX (GW) Groundwater (S) Soil (WW) Wastewater (SL) Sludge

Lab#	Sample Description	Field Point Name	Date & Time Sampled	MATRIX	BTEX/MTBE by 8021B, Gas by 8015	TPH GAS by 8015	TPH DIESEL by 8015	8260 full list w/ oxygenates	BTEX/MTBE/OXYS BY 8260B	ETHANOL by 8260B, EDB & EDC by 8260B	TPH –G by GC/MS	Methanol			Turnaround Time Requested
1	MW-5	9-29-10	1030	W		X	X		X	X		X			STD
2	MW-4		1120	W		↓	↓		↓	↓		↓			↓
3	MW-A		1040	W		↓	↓		↓	↓		↓			↓

SAMPLE RECEIPT BY LABORATORY
DISTRIBUTION
LAB
SUB-OUT

Comments: Please send copy to Results
Tom Wagoner
TWagoner@deltaenv.com

GLOBAL ID: T0600101467

Relinquished by: (Signature)	Received by:	Date & Time 9/29/10 1340
Relinquished by: (Signature) 9/29/10	Received by:	Date & Time 9.29.10 1840
Relinquished by: (Signature) 9.29.10 2100	Received by:	Date & Time 9-29-10 2100

Chain of Custody and Cooler Receipt Form for 1013646 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 10-1360460

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 ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

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

COC Received ☒ YES ☐ NO

Emissivity: 0.98 Container: QDA Thermometer ID: #163

Temperature: A 4.9 °C / C 4.9 °C

Date/Time 9/29/10 2115

Analyst Init

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										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A10	A10	A10	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504	B3	B3	B3							
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 AMBER	CD	CD	CD							
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:

Sample Numbering Completed By: JNG Date/Time: 9/30/10 1825

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1013646-01	**COC Number:**	---	**Receive Date:** 09/29/2010 21:00
	Project Number:	5781	**Sampling Date:** 09/29/2010 10:30
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-5	**Sample Matrix:** Water
	Sampled By:	TRCI	Delivery Work Order:
			Global ID: T0600101467
			Location ID (FieldPoint): MW-5
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1013646-02	**COC Number:**	---	**Receive Date:** 09/29/2010 21:00
	Project Number:	5781	**Sampling Date:** 09/29/2010 11:20
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-4	**Sample Matrix:** Water
	Sampled By:	TRCI	Delivery Work Order:
			Global ID: T0600101467
			Location ID (FieldPoint): MW-4
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1013646-03	**COC Number:**	---	**Receive Date:** 09/29/2010 21:00
	Project Number:	5781	**Sampling Date:** 09/29/2010 10:40
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-A	**Sample Matrix:** Water
	Sampled By:	TRCI	Delivery Work Order:
			Global ID: T0600101467
			Location ID (FieldPoint): MW-A
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1013646-01 | **Client Sample Name:** 5781, MW-5, 9/29/2010 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	ug/L	1000	EPA-8015B	ND	A01,Z1a	1
2-Chloroacrylonitrile (Surrogate)	1100	%	60 - 140 (LCL - UCL)	EPA-8015B		A01,Z1a	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	10/13/10	10/13/10 14:29	EJB	GC-12	10	BTJ0829

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1013646-01 | **Client Sample Name:** 5781, MW-5, 9/29/2010 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**220**	**ug/L**	**50**	**EPA-8260**	**ND**	**A01**	1
1,2-Dibromoethane	ND	ug/L	50	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	ug/L	50	EPA-8260	ND	A01	1
Ethylbenzene	**2500**	**ug/L**	**50**	**EPA-8260**	**ND**	**A01**	1
Methyl t-butyl ether	**52**	**ug/L**	**50**	**EPA-8260**	**ND**	**A01**	1
Toluene	**4100**	**ug/L**	**50**	**EPA-8260**	**ND**	**A01**	1
Total Xylenes	**23000**	**ug/L**	**500**	**EPA-8260**	**ND**	**A01**	2
t-Amyl Methyl ether	ND	ug/L	50	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	ug/L	1000	EPA-8260	ND	A01	1
Diisopropyl ether	ND	ug/L	50	EPA-8260	ND	A01	1
Ethanol	ND	ug/L	25000	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	ug/L	50	EPA-8260	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	112	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	98.3	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.2	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	95.8	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.9	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	10/04/10	10/04/10 12:34	MGC	MS-V5	100	BTJ0100
2	EPA-8260	10/04/10	10/05/10 01:37	MGC	MS-V5	500	BTJ0100

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1013646-01 | **Client Sample Name:** 5781, MW-5, 9/29/2010 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	**29000**	**ug/L**	**2500**	**Luft**	**ND**	**A01**	1
a,a,a-Trifluorotoluene (FID Surrogate)	103	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	10/08/10	10/08/10 19:20	jjh	GC-V4	50	BTJ0472

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1013646-01 | **Client Sample Name:** 5781, MW-5, 9/29/2010 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	**64000**	**ug/L**	**10000**	**Luft/TPHd**	**ND**	**A01,A52**	1
Tetracosane (Surrogate)	0	%	28 - 139 (LCL - UCL)	Luft/TPHd		A01,A17	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	10/06/10	10/13/10 13:22	MWB	GC-2	200	BTJ0808

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1013646-02 | **Client Sample Name:** 5781, MW-4, 9/29/2010 11:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	ug/L	100	EPA-8015B	ND		1
2-Chloroacrylonitrile (Surrogate)	104	%	60 - 140 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	10/13/10	10/13/10 14:50	EJB	GC-12	1	BTJ0829

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1013646-02 | **Client Sample Name:** 5781, MW-4, 9/29/2010 11:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**7.3**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.5	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	93.2	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	10/04/10	10/04/10 12:07	MGC	MS-V5	1	BTJ0100

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1013646-02 | **Client Sample Name:** 5781, MW-4, 9/29/2010 11:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	72.2	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	10/05/10	10/06/10 21:19	jjh	GC-V4	1	BTJ0162

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1013646-02 | **Client Sample Name:** 5781, MW-4, 9/29/2010 11:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50	Luft/TPHd	ND	A52	1
Tetracosane (Surrogate)	68.4	%	28 - 139 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	10/06/10	10/12/10 19:16	MWB	GC-2	1	BTJ0808

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1013646-03 | **Client Sample Name:** 5781, MW-A, 9/29/2010 10:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	ug/L	100	EPA-8015B	ND		1
2-Chloroacrylonitrile (Surrogate)	105	%	60 - 140 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	10/13/10	10/13/10 15:13	EJB	GC-12	1	BTJ0829

TRC
123 Technology Drive
Irvine, CA 92618

Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1013646-03 | **Client Sample Name:** 5781, MW-A, 9/29/2010 10:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	**0.63**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.1	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	93.3	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	10/04/10	10/04/10 11:40	MGC	MS-V5	1	BTJ0100

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Reported: 10/14/2010 10:33
Project: 5781
Project Number: 4512981281
Project Manager: Anju Farfan

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1013646-03 | **Client Sample Name:** 5781, MW-A, 9/29/2010 10:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	71.9	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	10/05/10	10/06/10 21:48	jjh	GC-V4	1	BTJ0162

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1013646-03 | **Client Sample Name:** 5781, MW-A, 9/29/2010 10:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	1200	Luft/TPHd	ND	A01,Z1	1
Tetracosane (Surrogate)	0	%	28 - 139 (LCL - UCL)	Luft/TPHd		A01,A17,Z1	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	10/06/10	10/13/10 12:59	MWB	GC-2	25	BTJ0808

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Solvent Scan (EPA Method 8015)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTJ0829						
Methanol	BTJ0829-BLK1	ND	ug/L	100		
2-Chloroacrylonitrile (Surrogate)	BTJ0829-BLK1	95.2	%	60 - 140 (LCL - UCL)		

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Solvent Scan (EPA Method 8015)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BTJ0829										
Methanol	BTJ0829-BS1	LCS	1876.0	2000.0	ug/L	93.8		50 - 150		
2-Chloroacrylonitrile (Surrogate)	BTJ0829-BS1	LCS	4744.0	4000.0	ug/L	119		60 - 140		

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Solvent Scan (EPA Method 8015)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BTJ0829	Used client sample: N										
Methanol	MS	1013191-44	ND	2209.0	2000.0	ug/L		110		50 - 150	
	MSD	1013191-44	ND	1956.0	2000.0	ug/L	12.1	97.8	30	50 - 150	
2-Chloroacrylonitrile (Surrogate)	MS	1013191-44	ND	4318.0	4000.0	ug/L		108		60 - 140	
	MSD	1013191-44	ND	4152.0	4000.0	ug/L		104		60 - 140	

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTJ0100						
Benzene	BTJ0100-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BTJ0100-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BTJ0100-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTJ0100-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTJ0100-BLK1	ND	ug/L	0.50		
Toluene	BTJ0100-BLK1	ND	ug/L	0.50		
Total Xylenes	BTJ0100-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTJ0100-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTJ0100-BLK1	ND	ug/L	10		
Diisopropyl ether	BTJ0100-BLK1	ND	ug/L	0.50		
Ethanol	BTJ0100-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BTJ0100-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BTJ0100-BLK1	101	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTJ0100-BLK1	97.5	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTJ0100-BLK1	92.4	%	86 - 115 (LCL - UCL)		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BTJ0100										
Benzene	BTJ0100-BS1	LCS	28.020	25.000	ug/L	112		70 - 130		
Toluene	BTJ0100-BS1	LCS	26.140	25.000	ug/L	105		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTJ0100-BS1	LCS	9.8000	10.000	ug/L	98.0		76 - 114		
Toluene-d8 (Surrogate)	BTJ0100-BS1	LCS	9.8800	10.000	ug/L	98.8		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTJ0100-BS1	LCS	9.1800	10.000	ug/L	91.8		86 - 115		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BTJ0100	Used client sample: Y - Description: MW-A, 09/29/2010 10:40										
Benzene	MS	1013646-03	ND	27.910	25.000	ug/L		112		70 - 130	
	MSD	1013646-03	ND	28.180	25.000	ug/L	1.0	113	20	70 - 130	
Toluene	MS	1013646-03	ND	26.290	25.000	ug/L		105		70 - 130	
	MSD	1013646-03	ND	26.660	25.000	ug/L	1.4	107	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1013646-03	ND	9.9200	10.000	ug/L		99.2		76 - 114	
	MSD	1013646-03	ND	9.8500	10.000	ug/L		98.5		76 - 114	
Toluene-d8 (Surrogate)	MS	1013646-03	ND	9.8700	10.000	ug/L		98.7		88 - 110	
	MSD	1013646-03	ND	9.9200	10.000	ug/L		99.2		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1013646-03	ND	9.4300	10.000	ug/L		94.3		86 - 115	
	MSD	1013646-03	ND	9.2600	10.000	ug/L		92.6		86 - 115	

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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTJ0162						
Gasoline Range Organics (C4 - C12)	BTJ0162-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTJ0162-BLK1	78.1	%	70 - 130 (LCL - UCL)		
QC Batch ID: BTJ0472						
Gasoline Range Organics (C4 - C12)	BTJ0472-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTJ0472-BLK1	93.6	%	70 - 130 (LCL - UCL)		

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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BTJ0162										
Gasoline Range Organics (C4 - C12)	BTJ0162-BS1	LCS	1035.3	1000.0	ug/L	104		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BTJ0162-BS1	LCS	39.083	40.000	ug/L	97.7		70 - 130		
QC Batch ID: BTJ0472										
Gasoline Range Organics (C4 - C12)	BTJ0472-BS1	LCS	1063.4	1000.0	ug/L	106		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BTJ0472-BS1	LCS	40.011	40.000	ug/L	100		70 - 130		

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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BTJ0162	Used client sample: N										
Gasoline Range Organics (C4 - C12)	MS	1013191-18	ND	1030.1	1000.0	ug/L		103		70 - 130	
	MSD	1013191-18	ND	1062.9	1000.0	ug/L	3.1	106	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1013191-18	ND	38.760	40.000	ug/L		96.9		70 - 130	
	MSD	1013191-18	ND	38.848	40.000	ug/L		97.1		70 - 130	
QC Batch ID: BTJ0472	Used client sample: N										
Gasoline Range Organics (C4 - C12)	MS	1013191-20	ND	1075.4	1000.0	ug/L		108		70 - 130	
	MSD	1013191-20	ND	1042.3	1000.0	ug/L	3.1	104	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1013191-20	ND	40.236	40.000	ug/L		101		70 - 130	
	MSD	1013191-20	ND	39.991	40.000	ug/L		100		70 - 130	

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTJ0808						
Diesel Range Organics (C12 - C24)	BTJ0808-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTJ0808-BLK1	70.1	%	28 - 139 (LCL - UCL)		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BTJ0808										
Diesel Range Organics (C12 - C24)	BTJ0808-BS1	LCS	400.37	500.00	ug/L	80.1		48 - 125		
Tetracosane (Surrogate)	BTJ0808-BS1	LCS	15.490	20.000	ug/L	77.4		28 - 139		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BTJ0808	Used client sample: N										
Diesel Range Organics (C12 - C24)	MS	1013191-49	ND	410.98	500.00	ug/L		82.2		36 - 130	
	MSD	1013191-49	ND	391.44	500.00	ug/L	4.9	78.3	30	36 - 130	
Tetracosane (Surrogate)	MS	1013191-49	ND	15.726	20.000	ug/L		78.6		28 - 139	
	MSD	1013191-49	ND	15.515	20.000	ug/L		77.6		28 - 139	

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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.
A17	Surrogate not reportable due to sample dilution.
A52	Chromatogram not typical of diesel.
Z1	Matrix interference required dilution. Verified by three runs.
Z1a	Matrix interference: sample contains gasoline.

STATEMENTS

Purge Water Disposal

Non-hazardous groundwater produced during purging and sampling of monitoring wells is accumulated at TRC's groundwater monitoring field office at Concord, California, for transportation by a licensed carrier to an authorized disposal facility. Currently, non-hazardous purge water is transported under a bulk non-hazardous waste manifest to Crosby and Overton, Inc. in Long Beach, California.

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.