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August 14, 2012

Mr. George Lockwood
State Water Resources Control Board
Underground Storage Tank Program
1001 I Street, 15th Floor
Sacramento, CA 95812

RECEIVED
AUG 15 2012
DIVISION OF WATER QUALITY

Re: **Case Closure Petition**
Unocal No. 6277
15803 E 14th Street
San Leandro, California
Case No. RO00029696

Dear Mr. Lockwood,

Antea Group has prepared this Case Closure Petition to document historical activities at the site, current site conditions, and petroleum hydrocarbon degradation timeframes to provide sufficient information for closure of the site. Attenuation of soil and groundwater at the site has occurred. The enclosed documentation has been provided to support that the residual impacts at the site present no risk to human health or the environment and the contaminant concentrations are expected to meet basin water quality objectives within a reasonable timeframe.

Antea Group submitted a request for regulatory closure for the site to the Alameda County Health Care Services Agency (ACHCSA) on May 30, 2012. To date, Antea Group has not received a response from the ACHCSA as to the status of case closure.

Antea Group is petitioning the closure of this site to the State of California Water Resources Control Board on behalf of the responsible party and petitioner listed below and requests that you review the enclosed information and reconsider closure for the site.

Responsible Party/Petitioner:	ConocoPhillips Company Attn: Louis S. Mosconi 3900 Kilroy Airport Way, Suite 210 Long Beach, CA 90806 (562) 290-1721	Ella Coelho Trust Coelho Gas LLC 18616 Highway 33E Dos Palos, CA 93620
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Upon receipt of site closure, Antea Group will initiate the removal of existing site monitoring wells as required and final report documenting removal of the monitoring wells will be submitted. If you have any questions regarding the contents of this Case Closure Petition or require additional information prior to closure, please do not hesitate to contact me at (916) 503-1261.

Sincerely,
ANTEA GROUP

Dennis S. Dettloff, P.G.
Project Manager
Dennis.dettloff@anteagroup.com
Antea Group

76 Service Station No. 6277

Property owner information

Site:

Parcel #: 80C-500-7

15803 E 14th Street

San Leandro, CA 94578

Owner: Ali Aliasgari

15803 E 14th Street


San Leandro, CA 94578

Offsite:

Parcel #: 80C-500-6

1311 159th Avenue

San Leandro, CA 94578


4000 E Third Ave. Suite 600

Foster City, CA 94404

Parcel #: 80-40-78-10

15800 E 14th Street

San Leandro, CA 94580



354 Pine St. Floor 3

San Francisco, CA 94104

Parcel #: 80-40-73-4

15850 E 14th Street

San Leandro, CA 94578



354 Pine St. Floor 3

San Francisco, CA 94104

Parcel #: 80-57-16-4

15900 E 14th Street

San Leandro, CA 94578




607 Brookside Dr.

Danville, CA 94526

Parcel #: 80C-500-22

15921 E 14th Street

San Leandro, CA 94578



15921 E 14th St.

San Leandro, CA 94578



30343 Canwood Street, Suite 200
Agoura Hills, CA 91301
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May 30, 2012

Mr. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Case Closure Request
Site: 76 Service Station No. 6277
15803 East 14th Street
San Leandro, California
Fuel Leak Case No. RO0002969

Dear Mr. Nowell;

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

If you have any questions or need additional information, please call:

Brian Whalen
Platinum Energy
30343 Canwood Street, Suite 200
Agoura Hills, Ca 91301
Tel: (818) 206-5704
Fax: (818) 206-5721
bwhalen@platinum-energy.net

Sincerely,

PLATINUM ENERGY

A handwritten signature in black ink, appearing to read "B. Whalen", is written over the printed name "BRIAN WHALEN". The signature is fluid and cursive.

BRIAN WHALEN

Attachment

Case Closure Request

*76 Service Station No. 6277
15803 East 14th Street
San Leandro, California*

*Alameda County Health Care Services
Agency Fuel Leak Case No. R000029696*

GeoTracker Global ID No. T0619718179

*Antea Group Project No. I40256277
May 30, 2012*

*Prepared for:
Mr. Keith Nowell
Hazardous Materials Specialist
Alameda County Health Care
Services Agency
1131 Harbor Bay Parkway,
Suite 250
Alameda, CA 94502-6577*

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Table of Contents

1.0	INTRODUCTION	1
1.1	Site Description	1
1.2	Geologic Setting	1
1.2.1	Regional Geologic Setting.....	1
	The site is located in the East Bay Plain Subbasin. The subbasin is an alluvial plain consisting of unconsolidated sediments of Quaternary age.....	1
1.2.2	Site Geologic Setting.....	1
1.3	Hydrogeologic Setting.....	2
2.0	SUMMARY OF PREVIOUS WORK	2
3.0	PETROLEUM HYDROCARBON DISTRIBUTION AND TRENDS.....	8
3.1	Lateral and Vertical Extent of Non-Aqueous Phase Liquid	8
3.2	Distribution of Petroleum Hydrocarbons in Soil	8
3.2.1	TPHg Distribution in Soil.....	8
3.2.3	MTBE Distribution in Soil.....	8
3.3	Distribution of Petroleum Hydrocarbons in Groundwater	9
3.3.1	TPHg Distribution in Groundwater	9
3.3.2	Benzene Distribution in Groundwater	9
3.3.3	MTBE Distribution in Groundwater.....	9
4.0	CONTAMINANT SOURCES, TRANSPORT, AND EXPOSURE PATHWAYS	10
4.1	Contaminant Source	10
4.2	Contaminant Transport and Preferential Pathways	10
4.3	Potential Sensitive Receptors	10
4.4	Exposure Pathways	11
4.4.1	Direct Contact (Ingestion and Dermal Contact)	11
4.4.2	Inhalation	11
5.0	LOW RISK CLOSURE READINESS EVALUATION	11
6.0	CONCLUSIONS AND RECOMMENDATIONS	13
7.0	REMARKS.....	14

Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Cross Section A-A'
Figure 4	Cross Section B-B'
Figure 5	Groundwater Elevation Contour Map – February 22, 2012
Figure 6	Dissolved Phase TPHg Isoconcentration Map – February 22, 2012
Figure 7	Dissolved Phase Benzene Isoconcentration Map – February 22, 2012
Figure 8	Dissolved Phase MTBE Isoconcentration Map – February 22, 2012



Tables

Table 1	Historical Soil Analytical Results
Table 2	Current Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Gauging and Analytical Data
Table 4	Historical Grab Groundwater Analytical Data
Table 5	Well Construction Details

Appendices

Appendix A	Historical Boring Logs
Appendix B	Historical Groundwater Flow Direction and Gradient Data and Rose Diagram

1.0 INTRODUCTION

Antea Group has prepared this Case Closure Request for the Alameda County Health Care Services Agency (ACHCSA). The purpose of this report is to summarize historical data collected during previous investigations, monitoring and sampling events, and evaluate the site data for low-risk case closure.

1.1 Site Description

The site is currently an operating 76 service station located at 15803 East 14th Street in San Leandro, California (**Figure 1**). Station facilities include two 12,000 gallon fuel underground storage tanks (USTs), a 520 gallon waste-oil UST, two dispenser islands and a service station building, containing three service bays (**Figure 2**).

1.2 Geologic Setting

1.2.1 Regional Geologic Setting

The site is located in the East Bay Plain Subbasin. The subbasin is an alluvial plain consisting of unconsolidated sediments of Quaternary age.

1.2.2 Site Geologic Setting

Based on soils observed during soil boring and monitoring well installation activities at the site, the site is underlain by silty sand, gravelly sand, sandy gravel, gravelly clay, clay, silt, sandy silt, silt with sand, poorly graded sand, and sandy clay. Fine grain material such as clay and silt extend from just below ground surface to a depth of 25 feet bgs. Discontinuous layers of sand and gravel appear at depths of approximately 15, 20, and 30 feet bgs. These layers range in thickness from inches to three feet. First encountered groundwater ranges in depth from 16 feet bgs to 28 feet bgs depending on lithology. Cross sections are presented on **Figure 3** and **Figure 4**. Boring logs are presented as **Appendix A**.

1.3 Hydrogeologic Setting

1.3.1 Regional Hydrogeologic setting

The site is located in the East Bay Plain Subbasin. The subbasin is an alluvial plain bounded by San Pablo bay to the north, the Franciscan Basement rock to the east, and the Niles Cone Groundwater Basin to the south. To the west the subbasin extends beneath the San Francisco Bay. Surface water collected in San Pablo Creek, Wildcat Creek, San Leandro Creek, and San Lorenzo Creek flow westward into the San Francisco and San Pablo bays. The San Francisco Bay is located approximately 4 miles west of the site.

1.3.2 Site Hydrogeologic Setting

The site currently has a network of four on-site monitoring wells (MW-7 through MW-10). Depth to groundwater in the monitoring wells has historically ranged from 9.35 feet below top of casing (btc) [MW-8, October 2011] to 10.78 feet btc [MW-10, February 2012]. The groundwater flow direction and gradient observed during the first quarter 2012 sampling event are shown on **Figure 5**. The historical groundwater flow direction is predominantly northwest with an average hydraulic gradient of 0.004 foot per foot (ft/ft). Historical groundwater flow directions and gradient data are presented as **Appendix B**.

2.0 SUMMARY OF PREVIOUS WORK

1969 - Reported site history indicates the site was first developed as a gas station from an empty lot.

March 1989 - Two 10,000-gallon gasoline USTs, one 550-gallon waste-oil UST, and the product piping were removed from the site during UST replacement activities. Kaprealian Engineering Inc. (KEI) advanced two exploratory borings designated as EB-1 and EB-2 at the site. The borings were advanced at the request of Alameda County to assess the possible presence of hydrocarbon impact to the soil in the vicinity of the proposed UST excavation.

The borings were advanced to depths of 10.5 feet below ground surface (bgs) and 13.5 feet bgs. Ground water was encountered in the borings at depths of 11 to 12 feet bgs. The analytical results of the soil samples were as follows:

- At a depth of 5 feet bgs soil samples analyzed for total petroleum hydrocarbons as gasoline (TPHg) ranged from below the laboratory's indicated reporting limit in boring EB-2 to 2.1 parts per million (ppm) in boring EB-1.

- At a depth of 10 feet bgs TPHg concentrations ranged from 200 ppm in boring EB-1 to 620 ppm in boring EB-2.

Based on results of this preliminary investigation, KEI recommended that the contractor excavate the existing UST excavation to a depth of approximately 13 feet bgs. Water was encountered in the fuel UST excavation at a depth of approximately 11 feet bgs, thus prohibiting the collection of any soil samples from immediately beneath the USTs.

Six soil samples, labeled SW1 through SW6, were collected from the sidewalls of the fuel UST excavation at depths of approximately 1 foot above the water table; and one soil sample, labeled WO-1, was collected from beneath the waste-oil UST at a depth of about 10 feet bgs. Based on observations in the field, it was decided to excavate additional soil from three of the four excavation sidewalls.

March 14, 1989: Four trenches were installed to assess the limits of additional soil excavation needed. Four soil samples were then collected at depths of approximately 10 feet bgs. The soil analytical results were as follows:

- In the fuel UST excavation, TPHg concentrations ranged from 24 ppm to 150 ppm.
- A sample collected adjacent to the existing station building indicated that TPHg was present at a concentration of 3,500 ppm.
- The soil sample collected after excavating 2 feet of sidewall toward the station building indicated that TPHg was present at a concentration of 100 ppm.
- Soil sample (SW-2) contained TPHg at a concentration of 390 ppm.
- The soil sample collected from the waste-oil UST excavation (WO-1) contained total oil and grease (TOG) at a concentration of 280 ppm. A side wall sample, SW-7 collected after excavating 14 feet of sidewall contained TOG at a concentration of 41 ppm.

The analytical results of the water sample (W1) collected from the waste-oil/fuel UST excavation contained TPHg at a concentration of 19,000 parts per billion (ppb) and benzene at a concentration of 230 ppb.

March 23, 1989: KEI returned to the site for pipe trench soil sampling. Six soil samples, labeled P1 through P6, were collected from beneath the product lines at depths of approximately 3 to 3.5 feet below grade. The analytical results of the soil samples P1 through P6 collected from the pipe trenches indicated concentrations of TPHg ranging from 1.1 ppm to 6.8 ppm.

The fuel UST excavation and the waste-oil UST excavation were over-excavated in order to remove hydrocarbon-impacted soil. The majority of the hydrocarbon-impacted soil appeared to have been

removed from the site, except for the capillary fringe in the vicinity of the former UST excavation and the building.

May 24, 1989: Four two-inch diameter monitoring wells, MW-1 through MW-4 were installed at the site. The four monitoring wells were installed to depths ranging from 24.5 to 25 feet bgs. Ground water was encountered at depths ranging from 11 to 12 feet bgs during drilling.

July 1989: The monitoring and sampling program was initiated.

February 1990: Monitoring well MW-2 was destroyed on February 1 in preparation for additional soil excavation in the vicinity of this well. Soil was excavated to a depth of approximately 6 to 12 inches below the level of the groundwater, which was encountered at a depth of about 11.5 feet below grade. After additional excavation, four soil samples were collected from the sidewalls of the excavation, each approximately 6 to 12 inches above groundwater. Soil excavation activities were terminated due to the close proximity of the former and new UST excavations and the site's property line.

The analytical results from the three soil samples indicated that TPHg was present at concentrations ranging from 140 ppm to 1,100 ppm, while concentrations of total petroleum hydrocarbons as diesel (TPHd) ranged from below the laboratory's indicated reporting limits to 280 ppm. The analytical results also indicated Environmental Protection Agency (EPA) Method 8010 constituents and TOG from each of the four samples were below the laboratory's indicated reporting limits, except in sample SW11A which contained TOG at a concentration of 210 ppm.

Over-excavation in the vicinity of monitoring well MW-2 was completed in April of 1990. Monitoring well MW-2 was then replaced with a new monitoring well (MW-2A) in March 1991.

1991: Due to the regular occurrence of tetrachloroethene (PCE), trichloroethene (TCE) and 1,2-dichloroethane (1,2-DCA) in sampled groundwater, a review of records documenting historic site activities was performed in 1991 to assess whether there were any up-gradient sources contributing to the impacted groundwater at the site. The file review was conducted by KEI at the Regional Water Quality Control Board (RWQCB).

The review focused on three sites with monitoring wells located within a half mile of the station. The Okada property, located at 16109 Ashland Avenue, a former USA Petroleum station located at 15120 Hesperian Boulevard, and Kaufman and Broad, located at 1620 162nd Avenue, approximately 1,800 feet

east-southeast of the site. The file review is outlined in Delta's *Addendum to Additional Site Assessment Work Plan*, dated April 3, 2009.

December 1992: A file review was conducted at the ACHCSA. Four sites with existing or former USTs were located in the vicinity of the site during the file review. These sites are as follows: 1.) Nayou Properties, 1500 Thrush Avenue; 2.) ABC Auto Repair, 15960 East 14th Street; 3. Petsas Property, 16035 East 14th Street, and; 4.) Speedee Oil Change, 15900 East 14th Street.

1991-1993: The California EPA, Department of Toxic Substances Control (DTSC), identified regional chlorinated solvent contamination of the upper aquifer in the San Leandro area.

1993: Based on the results of the site history research, site reconnaissance, and file review, and based upon the fact that no evidence of an on-site solvent source area in the vicinity of monitoring wells MW-3 and MW-4 was found, it was concluded that there was no likely on-site source of the halogenated volatile organic compound (HVOC) impact.

The potential of an off-site HVOC source is further supported by the fact that the highest HVOC concentrations have been reported in samples collected from monitoring wells MW-3 and MW-4, located on the up-gradient side of the site. HVOC concentrations reported in the groundwater samples collected from these monitoring wells are likely coming from a source (E.G. reaching sanitary sewer lines, etc.) up-gradient of the site.

March 1993: Monitoring wells MW-5 and MW-6 were installed on March 9, 1993. These wells were monitored monthly and sampled on a quarterly basis until 1996. Groundwater flow predominantly ranged from southwest to north during the course of the investigation. Chlorinated solvents have consistently been reported in up-gradient wells MW-3 and MW-4, and it appears that the chlorinated solvent impact at the site may be due to an unidentified source (or sources) located up-gradient of the site, or is part of a regional chlorinated solvent plume. The perimeter monitoring wells, MW-5 and MW-6, have historically shown a maximum concentration of 72 micrograms per liter ($\mu\text{g/L}$) of TPHg and below the laboratory's indicated reporting limits for benzene, toluene, ethylbenzene, and total xylenes (BTEX).

March 1997: An off-site investigation was conducted in March 1997 to assess any impacts in the down-gradient direction from monitoring well MW-1. Monitoring well MW-1 is the most down-gradient of the



wells at the site and has historically contained the highest concentrations of petroleum hydrocarbons in groundwater throughout the duration of the site investigation.

Three direct push borings (EB-3, EB-4, and EB-5) were advanced through East 14th Street in a northerly transect from the site. The three borings were each advanced to total depths ranging from 11 to 15 feet below grade. Groundwater was encountered at depths ranging from 10.5 to 15 feet bgs during drilling. No reportable target compounds were identified in either soil or groundwater samples.

1998 – A *Case Closure Summary* was prepared by the Alameda County Environmental Protection Department. This document concluded that drinking water wells are not affected. It also documented the maximum contaminant concentrations – before and after cleanup as follows:

Contaminant	Soil (ppm)		Water (ppb)		
	Before	After	Before	After	
TPHg	3,500	1,100	19,000	510	
TPHd	ND	6.2	NA	NA	
Benzene	40	8	230	72	
Toluene	280	43	79	ND	
Xylenes	600	230	1,300	17	
Ethyl-benzene	100	37	ND	ND	
Methyl tert-butyl ether (MTBE)	NA	NA	NA	390	
TOG	7,700	1,300	NA	NA	
Heavy Metals	NA	NA	NA	NA	
Other HVOC	TCE	ND	4.4	ND	
			PCE	110	950
			1,2-DCA		
			2.8	ND	

The *Case Closure Summary* concluded that “there are no known municipal or residential water wells or surface water bodies within 750 feet down-gradient of the subject site that would be impacted by shallow groundwater from this site”.

December 2000: The ACHCSA issued a *Case Closure* letter dated December 26, 2000.

2003: Six groundwater monitoring wells (MW-1, MW-2A, and MW-3 through MW-6) destroyed. Groundwater was at 6 to 11 feet bgs.

September 2007: Six soil borings (ATC-1 through ATC-6) were advanced in the vicinity of the existing fuel and waste-oil USTs and dispensers on September 25 and 26, 2007. The borings were advanced to total depths of approximately 20 feet bgs (ATC-2, ATC-3, ATC-4, and ATC-5) and 25 feet bgs (ATC-1 and ATC-6). Groundwater was initially encountered at depths ranging from 14 feet bgs to 24 feet bgs during drilling activities.

Groundwater samples were collected from each of the six borings. A duplicate groundwater sample designated as "Duplicate B-1" was collected from boring ATC-1. Photo ionization detector (PID) readings from the screened soil samples ranged from 1.4 ppm to 2,272 ppm. The analytical results from the ATC Investigation are outlined in Delta's *Addendum to Additional Site Assessment Work Plan* dated April 3, 2009.

December 2009: Delta advanced six soil borings (B-1 through B-5, and B-7) to assess the extent of petroleum hydrocarbon impact to the soil and groundwater. The borings were advanced to total depths ranging from 24 to 32 feet bgs. First groundwater was encountered at depths ranging from 21 to 28.5 feet bgs during drilling activities.

Soil and groundwater samples were collected from each of the six borings. PID readings from the screened soil samples ranged from 0.2 ppm to 197 ppm. The analytical results indicated that TPHg was present in the soil at a maximum concentration of 603 mg/kg (B-1 at 12 feet) and in the groundwater at a maximum concentration of 2,110 µg/L (B-1). The analytical results from the December 2009 Investigation are outlined in Delta's *Subsurface Soil and Groundwater Investigation Report* dated March 23, 2010.

April 5, 2011: Antea Group completed a site investigation consisting of the installation of four on-site monitoring wells (MW-7 through MW-10). The results of the investigation are presented in the *Site Investigation Report*, dated July 5, 2011.

3.0 PETROLEUM HYDROCARBON DISTRIBUTION AND TRENDS

3.1 Lateral and Vertical Extent of Non-Aqueous Phase Liquid

Non-aqueous phase liquid (NAPL) has not been observed in soil and groundwater samples collected at the site.

3.2 Distribution of Petroleum Hydrocarbons in Soil

Historical soil sampling analytical results are summarized in **Table 1**.

3.2.1 TPHg Distribution in Soil

TPHg was reported in several soil samples collected on-site with a maximum concentration of 1,000 mg/kg at 5 feet bgs in soil sample ATC-4d5.0 in 2007. This soil sample was collected from soil boring ATC-4 which was advanced just east of the northern dispenser island (**Figure 2**). TPHg impacted soil at the site has been laterally delineated to the south, east, and west and vertically delineated and further investigation is not warranted at this time, based on the soil sample analytical results from samples collected from monitoring wells MW-7 through MW-10 and borings B-1 through B-7.

3.2.2 Benzene Distribution in Soil

Benzene has been reported in several soil samples collected on-site with a maximum concentration of 0.71 mg/kg at 12 feet bgs in soil sample B-1@12. This soil sample was collected from soil boring B-1 which was advanced just north of the product dispenser islands. Benzene impacted soil has been laterally delineated to the south, east, and west and vertically delineated and further investigation is not warranted at this time, based on the soil sample analytical results from samples collected from monitoring wells MW-7 through MW-10 and borings B-1 through B-7.

3.2.3 MTBE Distribution in Soil

MTBE has been reported in several soil samples collected on-site with a maximum concentration of 0.21 mg/kg at 10 feet bgs in soil boring B-7. MTBE impacted soil has been laterally delineated to the south, east, and west and vertically delineated and further investigation is not warranted at this time, based on the soil sample analytical results from samples collected from monitoring wells MW-7 through MW-10 and borings B-1 through B-7.

3.3 Distribution of Petroleum Hydrocarbons in Groundwater

Historical groundwater sampling locations are shown on **Figure 2**. Historical groundwater concentrations observed during periodic monitoring and sampling events since 2011 are presented in **Table 3**. Historical grab groundwater concentrations are presented in **Table 4**.

Constituents of concern (COC) in groundwater at the site have historically been TPHg, benzene, and MTBE. There are currently four groundwater monitoring wells on-site (MW-7 through MW-10) which monitor COC concentrations. Well construction details are included in **Table 5**.

3.3.1 TPHg Distribution in Groundwater

TPHg has historically been observed above the laboratory reporting limit in monitoring wells MW-7 through MW-10. TPHg was reported above the laboratory's reporting limit in monitoring wells MW-7 through MW-10 during the first quarter 2012 monitoring and sampling event with a maximum concentration of 655 micrograms per liter ($\mu\text{g}/\text{L}$) in the sample collected from monitoring well MW-7 (**Figure 6**).

3.3.2 Benzene Distribution in Groundwater

Benzene has historically been observed above the laboratory reporting limit in monitoring wells MW-7 and MW-8. Benzene was reported above the laboratory's reporting limit in monitoring well MW-7 during the first quarter 2012 monitoring and sampling event at a concentration of 14.9 $\mu\text{g}/\text{L}$ (**Figure 7**).

3.3.3 MTBE Distribution in Groundwater

MTBE has historically been observed above the laboratory reporting limit in monitoring wells MW-7 through MW-10. MTBE was reported in monitoring wells MW-7 through MW-10 during the first quarter 2012 monitoring and sampling event with a maximum concentration of 112 $\mu\text{g}/\text{L}$ in the sample collected from monitoring well MW-7 (**Figure 8**).

4.0 CONTAMINANT SOURCES, TRANSPORT, AND EXPOSURE PATHWAYS

4.1 Contaminant Source

Based on the distribution of contaminants of concern in the soil and groundwater, it appears the on-site release occurred from the former USTs in the northwest portion of the site (**Figure 2**) and/or the former product piping and fuel dispenser in the northeast portion of the site. The highest concentrations of TPHg were found in soils immediately southeast of the product dispensers. Both the USTs and product lines have been replaced. It appears that contaminants of concern currently observed in soil and groundwater are residual in nature and will naturally attenuate within a reasonable amount of time.

4.2 Contaminant Transport and Preferential Pathways

A detailed underground utility survey has not been performed at the site. Based on the difference between the depth of groundwater (average 9 feet bgs) and the typical depth of utilities (usually no more than 5 feet bgs), it is unlikely that groundwater would intersect the utility trenches and use them as preferential pathways. In addition, based on the observed first encountered groundwater beneath the site, average 21.85 feet bgs, during soil boring advancement and monitoring well installation and the average depth to groundwater in the monitoring wells, 9.79 feet below top of casing, it appears that the groundwater is under confined conditions and not likely to be influenced by utility trenches.

4.3 Potential Sensitive Receptors

March 26, 2012: Antea Group completed a sensitive receptor survey for the site. According to California Department of Water Resources (DWR) and the Alameda County Public Works Agency (ACPWA) records, sixteen water wells are located within a one-half mile of the site. All sixteen of the wells are described as irrigation supply wells. The closest of the wells is located <100 feet north-northwest of the site in the apartment complex adjacent to the site. According to the apartment complex, they receive their irrigation water from the city; therefore, Antea Group concludes that this well has been either destroyed or abandoned. Five additional wells were identified by the DWR and ACPWA, but their locations were not reported and Antea Group was unable to locate these wells during a site visit.

A web based search identified twelve facilities within 0.5 miles of the site that could be potential receptors. These include schools, churches, medical facilities and elderly care facilities. The closest facility is Bayfaur Lodge Residential Care, an elderly care facility, is located 650 feet northeast of the site. The closest body of water is a drainage canal running north to south located 260 feet west of the site.

4.4 Exposure Pathways

4.4.1 Direct Contact (Ingestion and Dermal Contact)

Direct exposure to chemicals in the soil is primarily a concern when the impacts are located within 10 feet of the ground surface. Because the majority of the site is covered in concrete and asphalt, construction workers are the most likely on-site receptor to be directly exposed to the impacted soil and groundwater either during utility work or excavation activities. Commercial workers such as landscapers can potentially be exposed to chemicals in the soil to two feet bgs during typical irrigation system maintenance on-site. Due to the limited amount of landscaping on-site, the potential for exposure to this receptor is low. Commercial employees of the station typically do not perform subsurface work, and thus are less likely to be exposed.

4.4.2 Inhalation

Because the site is currently occupied by an active service station, commercial workers are most susceptible to exposure via the inhalation pathway, as they spend the greatest amount of time on-site. The risk to customers is far less, based on their limited potential exposure time. Construction workers conducting an indoor remodel or outside work could be exposed to vapors within buildings or ambient air, although their time on-site would be limited. Because groundwater impact is limited in extent, off-site, it appears the inhalation risk to off-site residents does not exist.

5.0 LOW RISK CLOSURE READINESS EVALUATION

- **The release has been stopped and ongoing contaminant sources have been removed or remediated.**

Based on the distribution of contaminants of concern in the soil and groundwater, it appears the on-site release(s) occurred from the former USTs in the northwest portion of the site (**Figure 2**) and/or the former product lines in the northeast portion of the site. The highest concentrations of TPHg was reported in soils immediately south of the product dispensers. Both the USTs and product lines have been replaced. It appears concentrations observed in soil and groundwater are residual in nature and will naturally attenuate within a reasonable amount of time.

- **The site has been adequately characterized.**

Soil impact at the site is minimal, and has been vertically delineated and laterally delineated to the south, east, and west (**Section 3.2**). Groundwater impact at the site is now limited to COCs TPHg, benzene, and MTBE (**Section 3.3**). Benzene and MTBE concentrations are below the concentrations reported when the case was closed in 1998. TPHg concentrations in the monitoring well MW-7 are decreasing, and the concentrations reported in the other three monitoring wells are below the levels observed when the case was closed in 1998. It appears historical soil and groundwater sampling activities at the site have adequately delineated groundwater impact and further investigation is not warranted. All COCs are currently below COC concentrations reported in 1998. This appears to indicate that there was no new release and the site should be closed.

- **The contamination is not migrating.**

The contamination plume appears to be shrinking. Concentrations of TPHg, benzene, and MTBE are decreasing in monitoring well MW-7, which historically contained the highest concentrations of TPHg, benzene, and MTBE. Concentrations observed in monitoring wells MW-8 through MW-9 are stable and remain below the groundwater concentrations reported when the case was closed in 1998.

- **No water wells, deep water drinking aquifers, surface water, or sensitive receptors are likely to be impacted.**

Antea Group performed a sensitive receptor survey in 2012. Sixteen irrigation water supply wells were identified in the search. Based on the distance from the site and the predominant groundwater flow direction, it does not appear that the petroleum hydrocarbon and MTBE impact is migrating in the direction of these water supply wells and impact to the wells is unlikely.

There are two surface water bodies identified within a one-half mile of the site. A drainage ditch located 260 feet west of the site and a drainage ditch located 420 feet south of the site. Based on the predominant groundwater flow direction being to the northwest, it appear that impact to these water bodies due to petroleum hydrocarbon and MTBE impact in the shallow groundwater originating beneath the site is unlikely.

- **The site presents no significant risk to human health and/or environment.**

There are no water supply wells in the immediate vicinity of the site and the shallow impacted groundwater plume does not appear to be migrating. Therefore, it appears the risk to off-site residents direct exposure to the shallow groundwater does not exist.

- **Destruction of Monitoring Wells.**

Antea Group will remove the four on-site monitoring wells by either over-drilling or pressure grouting when instructed to do so by the ACHCSA in preparation for regulatory closure. The well construction details are presented in **Table 5**.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group has made the following conclusions in this Case Closure Request:

- All contaminants of concern in soil have been laterally and vertically delineated, and do not pose a significant risk to human health. Further investigation of the soil impact due to the on-site release(s) is not warranted.
- Groundwater impacted has been adequately delineated cross- and down-gradient of the site. The impacted groundwater plume does not appear to be migrating and concentrations reported in the four on-site monitoring wells show a stable and/or decreasing trend.
- Currently, all constituents of concern are at or below those reported at the time of site closure in 1998. This indicates that there has not been a new release at this site and this site should be closed.

7.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:

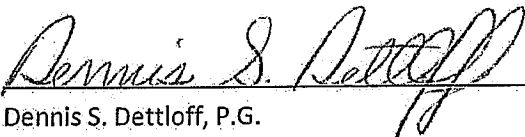


Edward T. Weyrens, G.I.T.
Project Professional

Date: 5/30/12

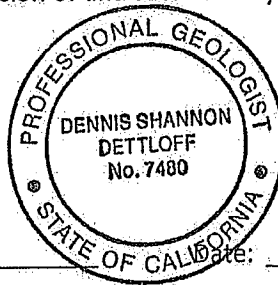
Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:



Dennis S. Dettloff, P.G.
Project Manager

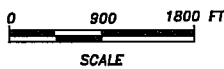
California Registered Professional Geologist No. 7480



Date: 5/30/12

Figures

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 Cross Section A-A'
- Figure 4 Cross Section B-B'
- Figure 5 Groundwater Elevation Contour Map – February 22, 2012
- Figure 6 Dissolved Phase TPHg Isoconcentration Map – February 22, 2012
- Figure 7 Dissolved Phase Benzene Isoconcentration Map – February 22, 2012
- Figure 8 Dissolved Phase MTBE Isoconcentration Map – February 22, 2012



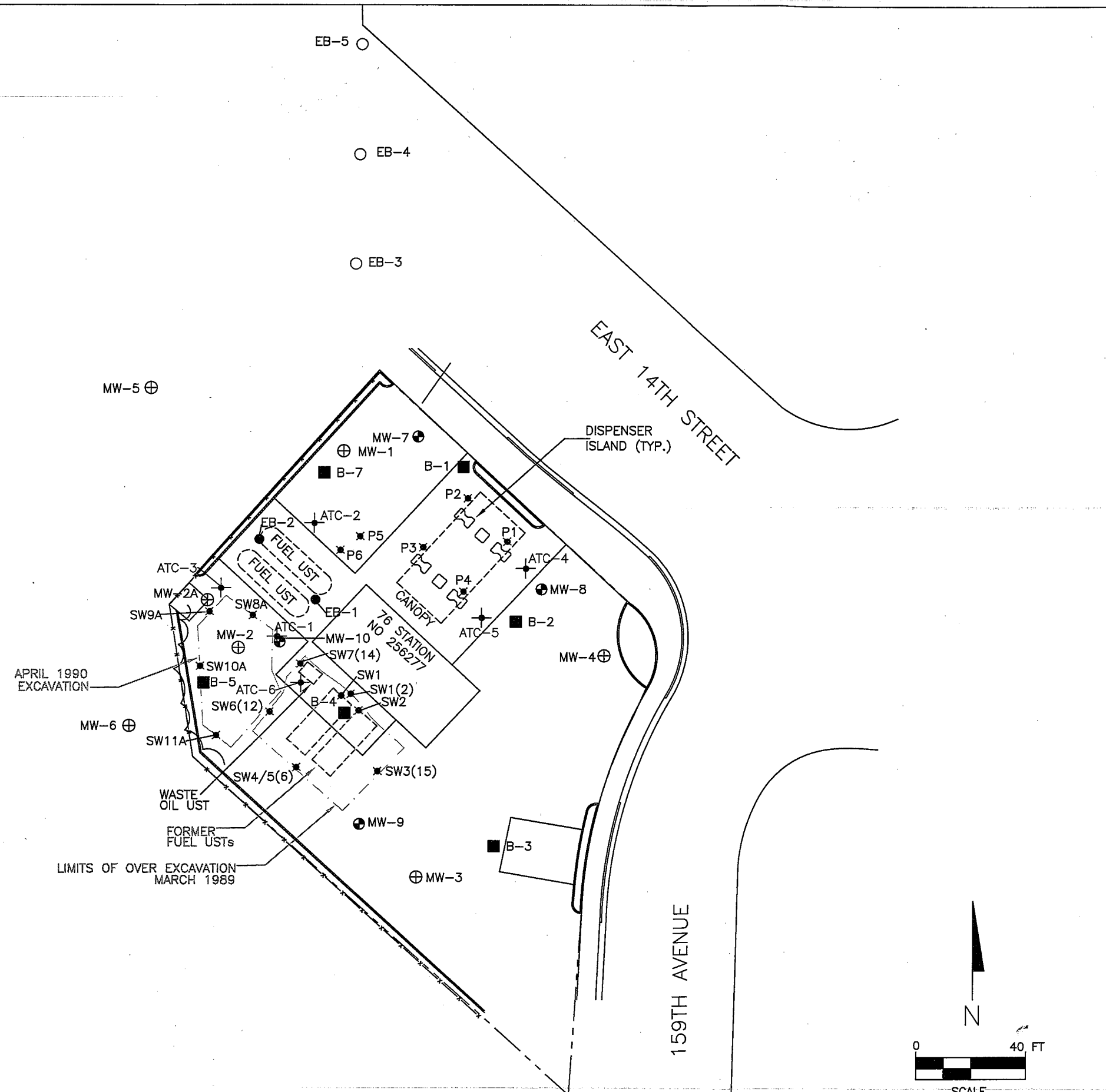
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, SAN LEANDRO QUADRANGLE (1973)

FIGURE 1
SITE LOCATION MAP

76 SERVICE STATION NO. 6277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 14256277	DRAWN BY JH 05/13/11
FILE NO. 6277-SiteLocator	PREPARED BY EW
REVISION NO.	REVIEWED BY





LEGEND:

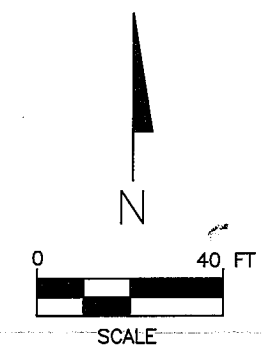
- APPROXIMATE PROPERTY BOUNDARY
- x-x- FENCE
- - - - - FORMER EXCAVATION AREA
- ⊕ MONITORING WELL LOCATION (ANTEA GROUP 2011)
- ⊕ DESTROYED/ABANDONED MONITORING WELL
- ✱ SOIL SAMPLE LOCATION (KEI 1989)
- SOIL BORING (KEI 1989)
- SOIL BORING (KEI 1997)
- ⊕ SOIL BORING (ATC 2007)
- BORING LOCATION (DELTA, 2009)

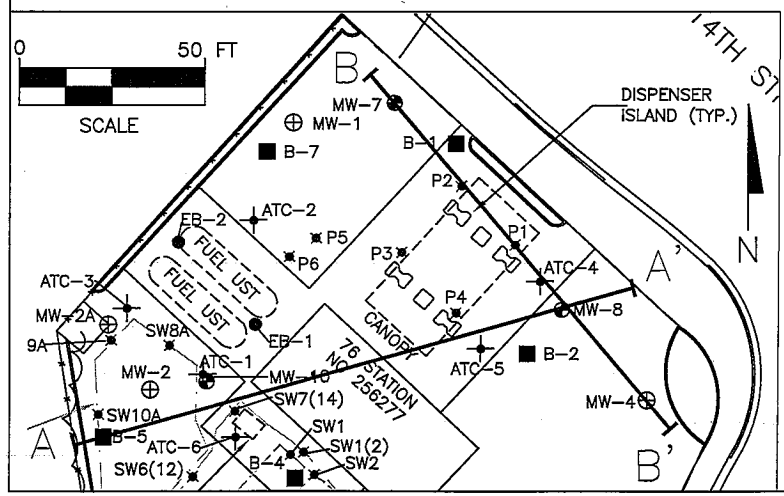
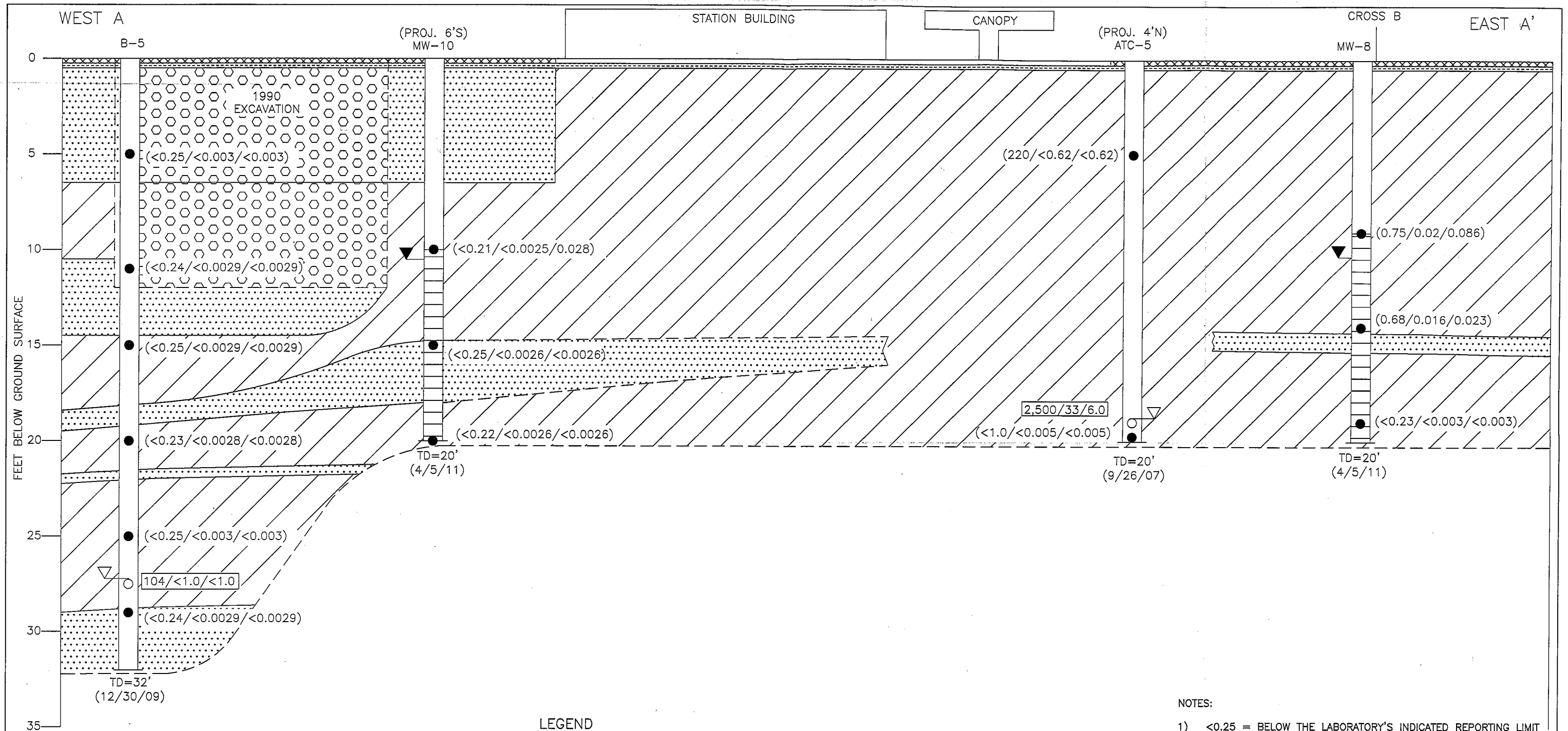
SITE PLAN ADAPTED FROM A SURVEY BY MORROW SURVEYING 2011 AND BASE MAPS DATED 1989 AND 2003 BY KEI AND 2007 BY ATC AND ASSOCIATES.

FIGURE 2
SITE PLAN

76 SERVICE STATION NO. 6277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 14256277	PREPARED BY EW	DRAWN BY JH	<p>anteagroup</p>
DATE 04/18/11	REVIEWED BY DD	FILE NAME 6277-SMS	





LEGEND

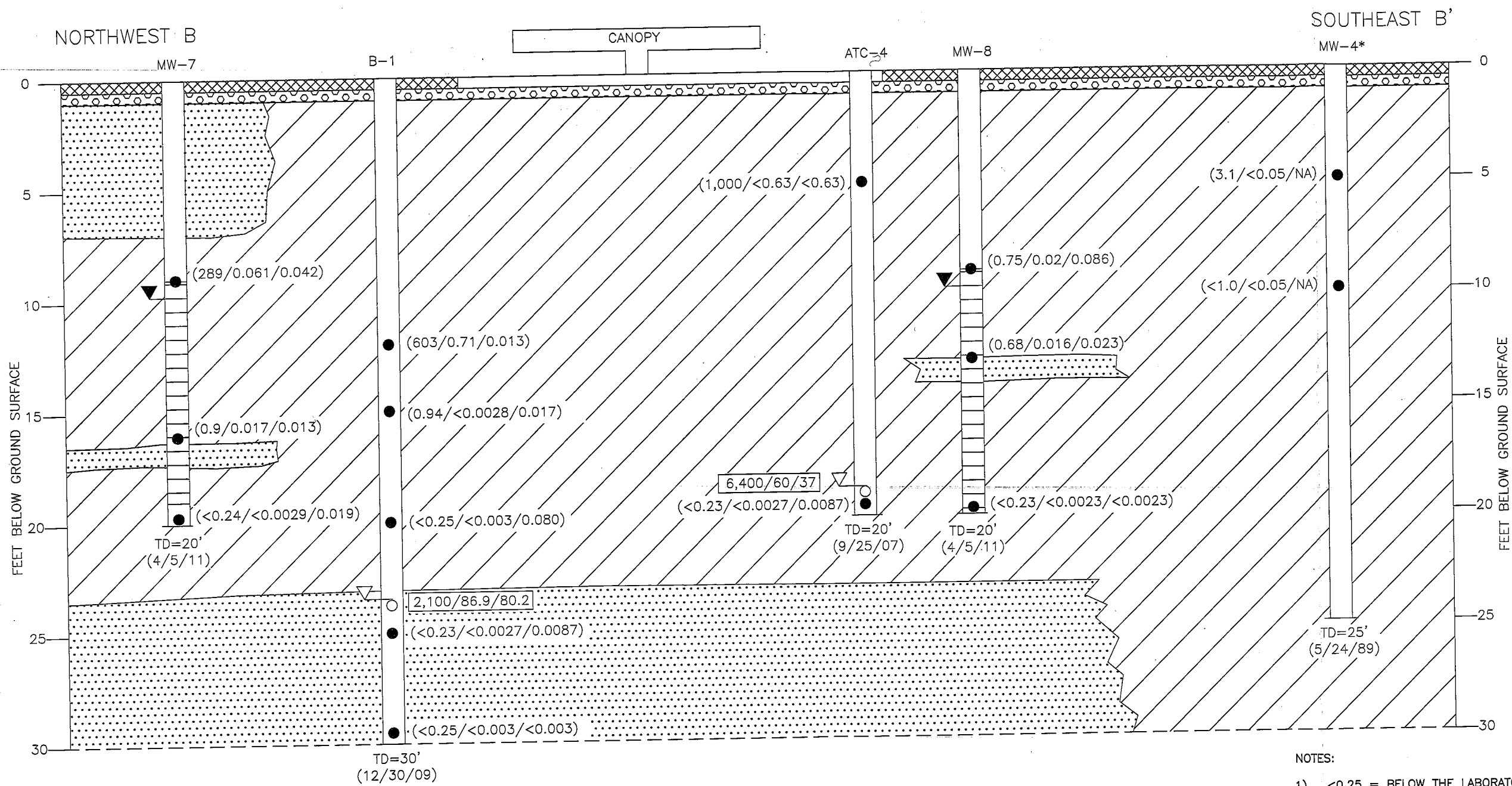
- MW-10 MONITORING WELL/BORING LOCATION
- EXPLORATORY BORING/WELL CASING
- SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (mg/kg)
- DEPTH TO STATIC WATER LEVEL
- GRAB GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE ($\mu\text{g/L}$)
- WELL SCREEN
- DEPTH TO FIRST ENCOUNTERED GROUNDWATER
- TOTAL DEPTH DATE INSTALLED
- CONCRETE
- CLASS II AB
- SAND
- ASPHALT
- FILL
- FINE GRAINED MATERIAL (CLAY, SILT, ETC)
- APPROXIMATE STRATIGRAPHIC BOUNDARY

- NOTES:
- <0.25 = BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 MTBE = METHYL-TERT-BUTYL ETHER
 mg/kg = MILLIGRAMS PER KILOGRAM
 $\mu\text{g/L}$ = MICROGRAMS PER LITER
 - STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

FIGURE 3
GEOLOGIC CROSS SECTION A - A'

76 SERVICE STATION NO. 6277
 15803 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. 14256277	PREPARED BY EW	DRAWN BY JH
DATE 05/13/11	REVIEWED BY DD	FILE NAME 6277-SMS



NOTES:

- <0.25 = BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 MTBE = METHYL-TERT-BUTYL ETHER
 NA = NOT ANALYZED
 mg/kg = MILLIGRAMS PER KILOGRAM
 µg/L = MICROGRAMS PER LITER
 * = DESTROYED
- STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

LEGEND

- MW-10 MONITORING WELL/BORING LOCATION
- EXPLORATORY BORING/WELL CASING
- SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (mg/kg)
- DEPTH TO STATIC WATER LEVEL
- GRAB GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (µg/L)
- WELL SCREEN
- DEPTH TO FIRST ENCOUNTERED GROUNDWATER
- TOTAL DEPTH DATE INSTALLED
- CONCRETE
- CLASS II AB
- SAND
- ASPHALT
- FINE GRAINED MATERIAL (CLAY, SILT, ETC)
- APPROXIMATE STRATIGRAPHIC BOUNDARY

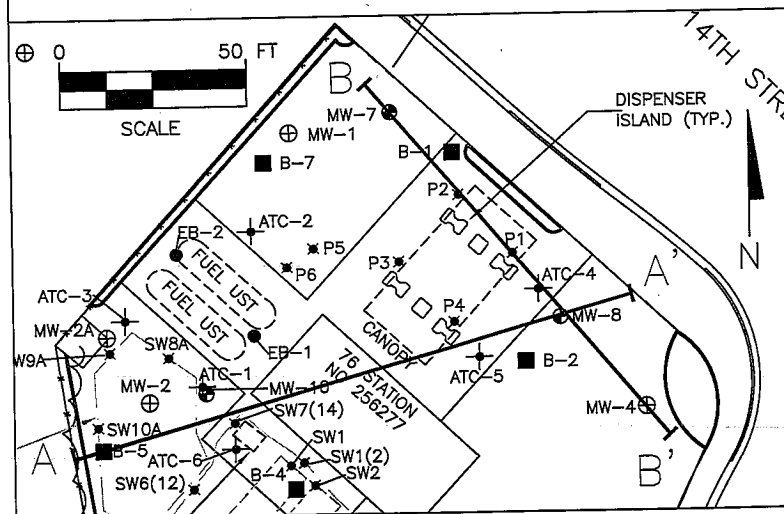
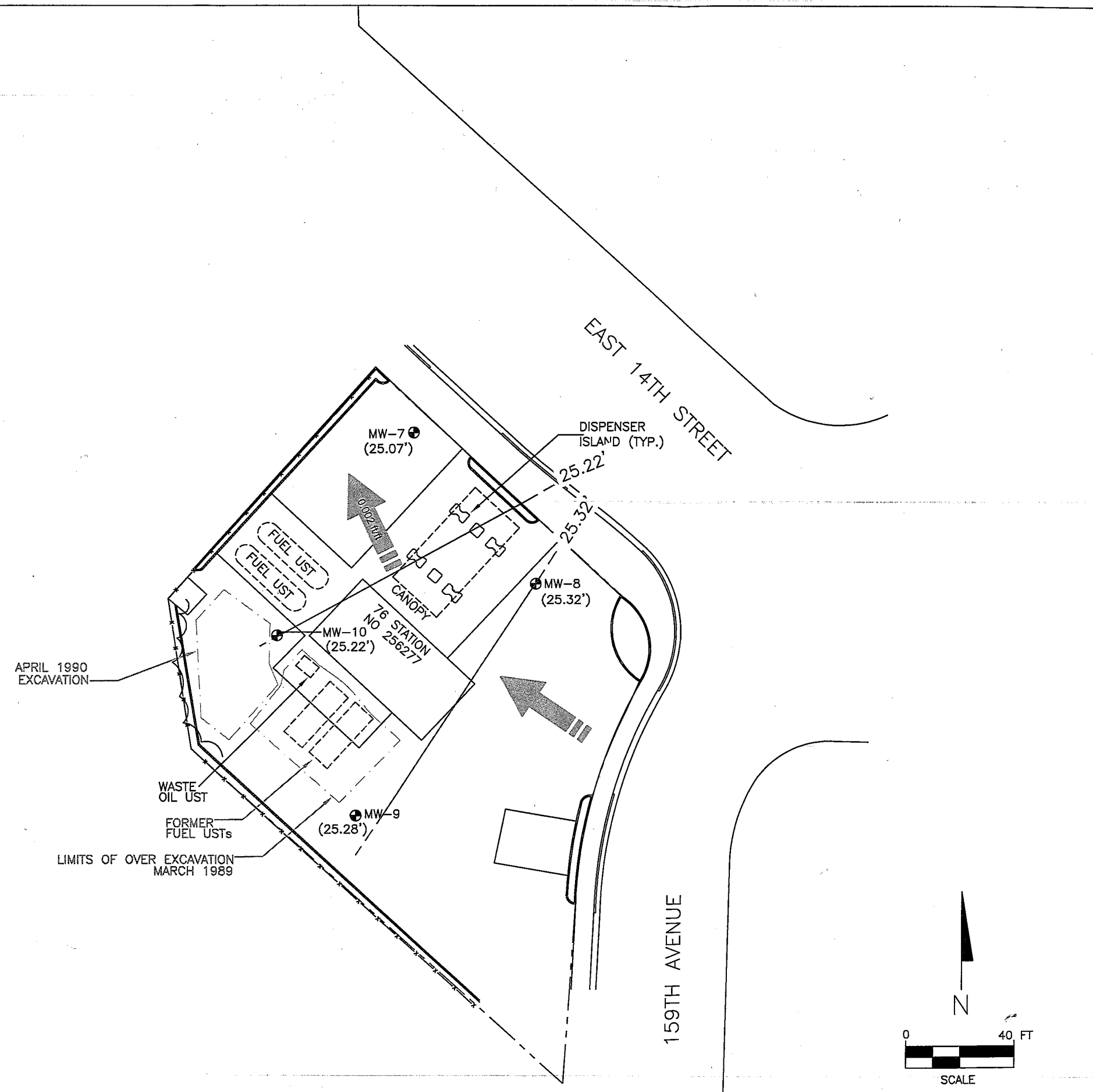


FIGURE 4
GEOLOGIC CROSS SECTION B - B'

76 SERVICE STATION NO. 6277
 15803 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. 14256277	PREPARED BY EW	DRAWN BY JH
DATE 05/13/11	REVIEWED BY DD	FILE NAME 6277-SMS

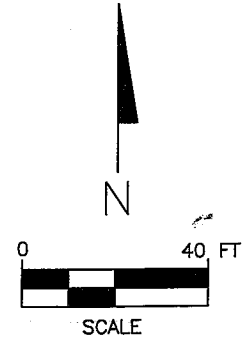




- LEGEND:**
- APPROXIMATE PROPERTY BOUNDARY
 - x - x - FENCE
 - - - - - FORMER EXCAVATION AREA
 - MONITORING WELL LOCATION (ANTEA GROUP 2011)
 - (25.32') GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (ft/msl)
 - 25.32' - - - GROUNDWATER ELEVATION CONTOUR LINE (ft/msl) -DASHED WHERE INFERRED (CONTOUR INTERVAL: 0.10 ft)
 - ← 0.002 ft/ft GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT (ft/ft)

SITE PLAN ADAPTED FROM A SURVEY BY MORROW SURVEYING 2011 AND BASE MAPS DATED 1989 AND 2003 BY KEI AND 2007 BY ATC AND ASSOCIATES.

FIGURE 5
GROUNDWATER ELEVATION CONTOUR MAP
 FEBRUARY 22, 2012
 76 SERVICE STATION NO. 6277
 15803 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA



PROJECT NO. 14256277	PREPARED BY DD	DRAWN BY JH
DATE 3/13/12	REVIEWED BY DD	FILE NAME 6277-SMS

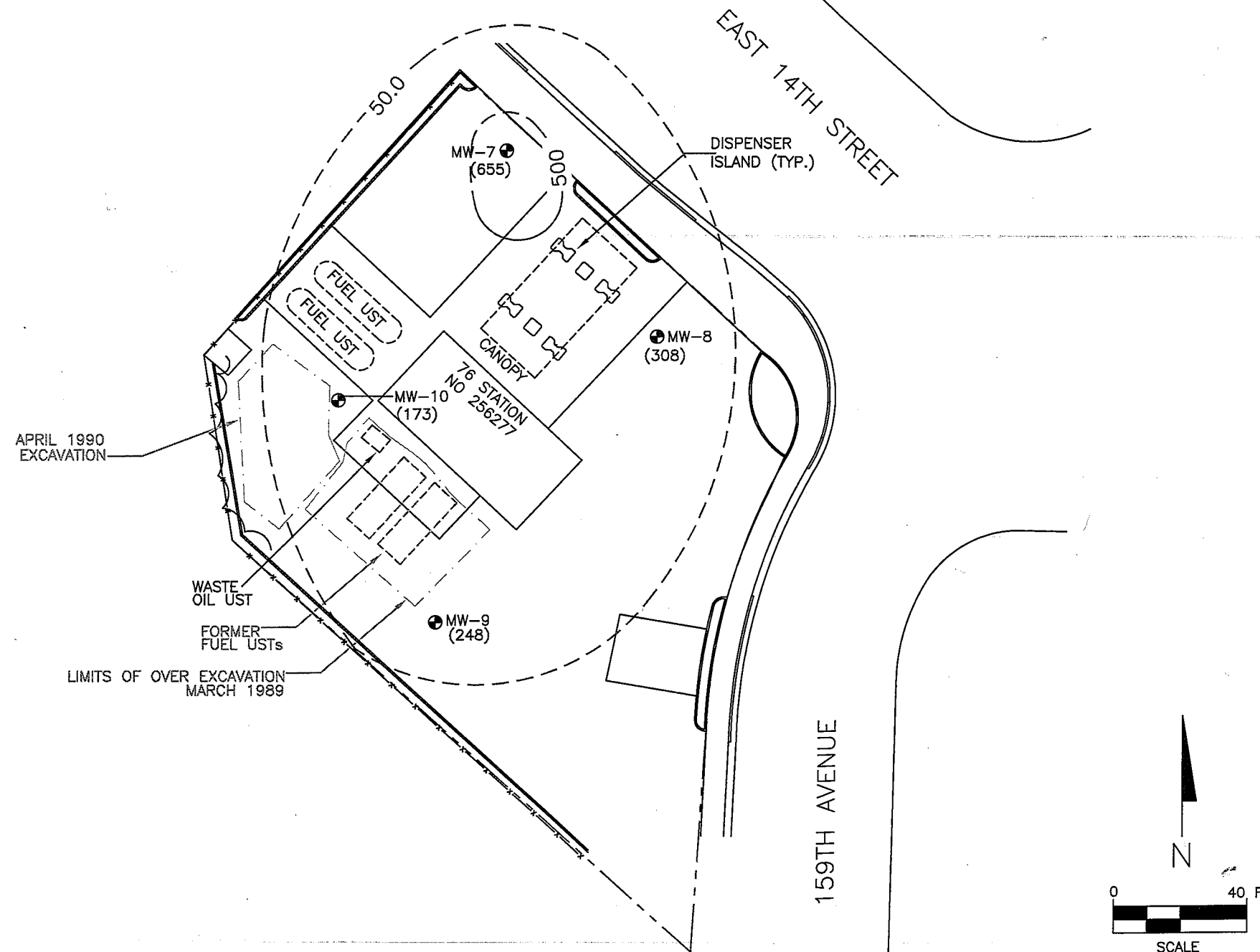


LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- x - x - FENCE
- - - - - FORMER EXCAVATION AREA
- ⊕ MONITORING WELL LOCATION (ANTEA GROUP 2011)
- (655) DISSOLVED PHASE TPHg ISOCONCENTRATION (µg/L)
- 500 --- DISSOLVED PHASE TPHg ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

- TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- µg/L = MICROGRAMS PER LITER



SITE PLAN ADAPTED FROM A SURVEY BY MORROW SURVEYING 2011 AND BASE MAPS DATED 1989 AND 2003 BY KEI AND 2007 BY ATC AND ASSOCIATES.

FIGURE 6
 DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
 FEBRUARY 22, 2012
 76 SERVICE STATION NO. 6277
 15803 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

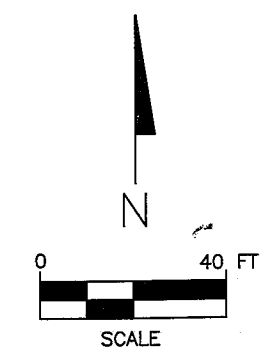
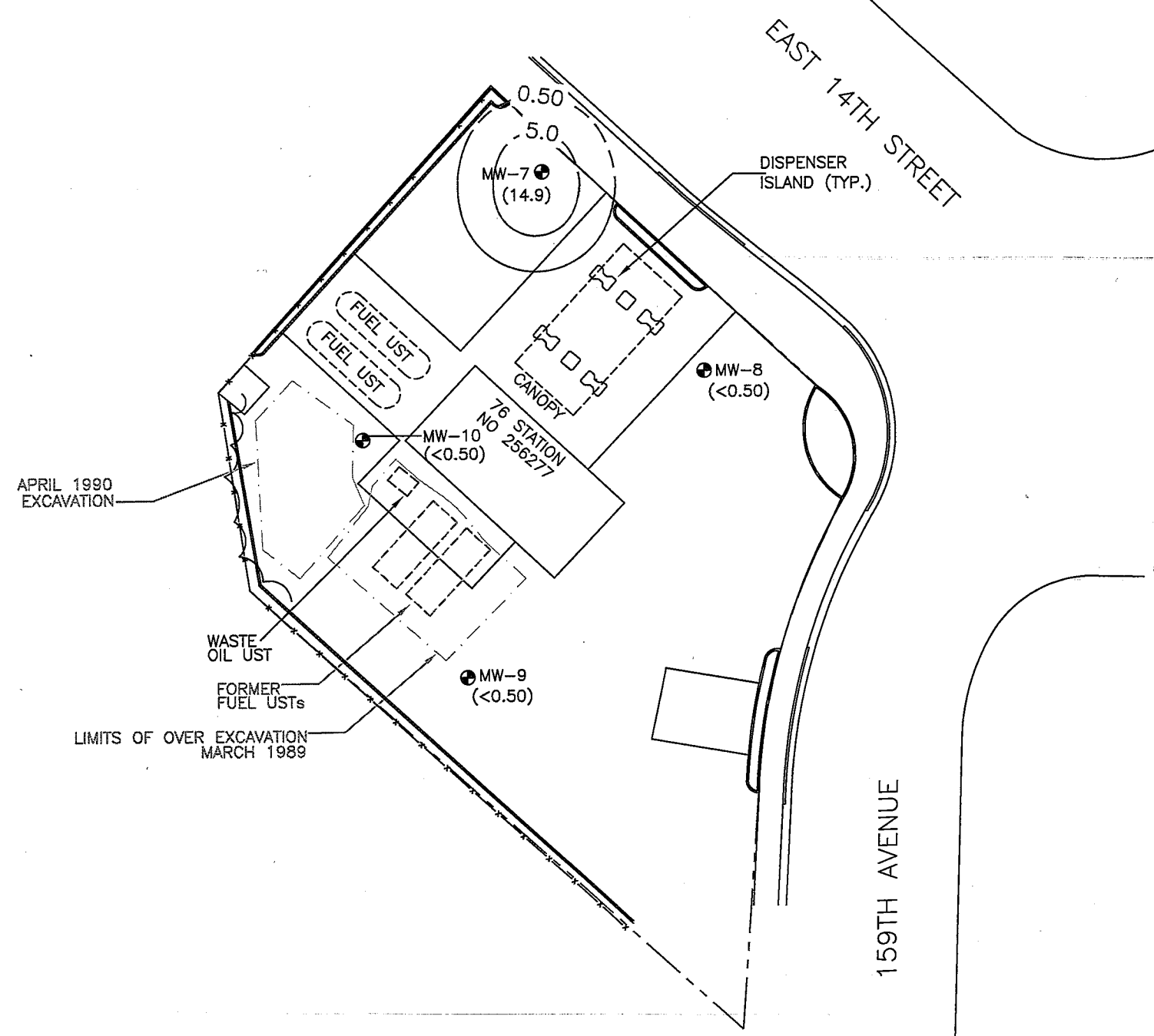
PROJECT NO. 14256277	PREPARED BY DD	DRAWN BY JH
DATE 3/13/12	REVIEWED BY DD	FILE NAME 6277-SMS



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- x-x- FENCE
- - - - - FORMER EXCAVATION AREA
- MONITORING WELL LOCATION (ANTEA GROUP 2011)
- (14.9) DISSOLVED PHASE BENZENE ISOCONCENTRATION ($\mu\text{g/L}$)
- 5.0 - - DISSOLVED PHASE BENZENE ISOCONTOUR ($\mu\text{g/L}$)
-DASHED WHERE INFERRED

- NOTES:**
- $\mu\text{g/L}$ = MICROGRAMS PER LITER
 - <0.50 = LESS THAN LABORATORY INDICATED REPORTING LIMITS



SITE PLAN ADAPTED FROM A SURVEY BY MORROW SURVEYING 2011 AND BASE MAPS DATED 1989 AND 2003 BY KEI AND 2007 BY ATC AND ASSOCIATES.

FIGURE 7
 DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
 FEBRUARY 22, 2012
 76 SERVICE STATION NO. 6277
 15803 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. 14256277	PREPARED BY DD	DRAWN BY JH
DATE 3/13/12	REVIEWED BY DD	FILE NAME 6277-SMS

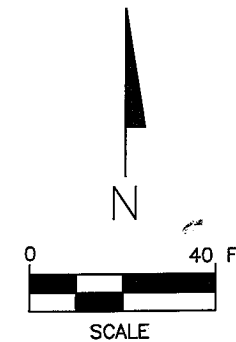
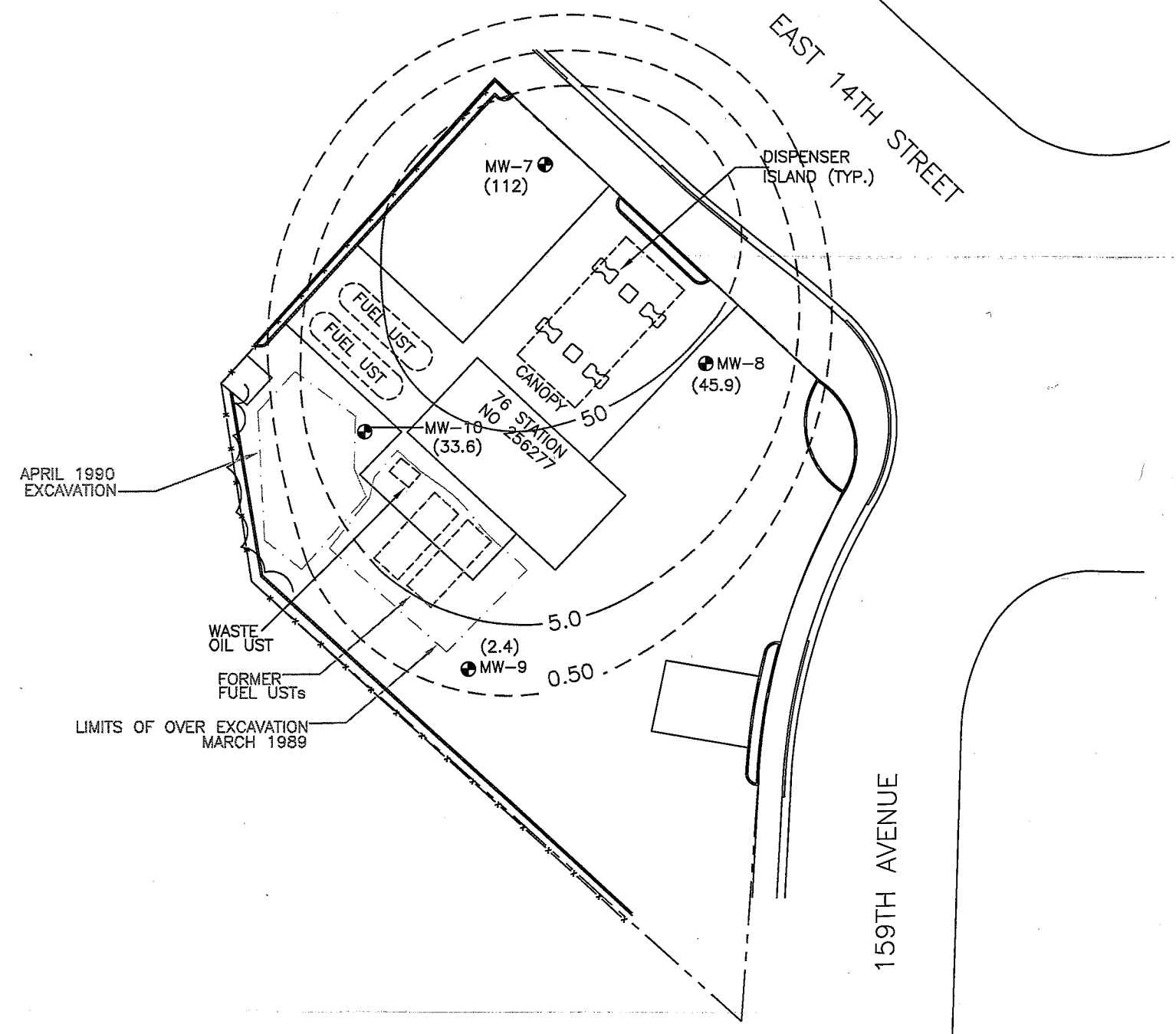


LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- x - x - FENCE
- - - - - FORMER EXCAVATION AREA
- MONITORING WELL LOCATION (ANTEA GROUP 2011)
- (112) DISSOLVED PHASE MTBE ISOCONCENTRATION (µg/L)
- 5.0 — DISSOLVED PHASE MTBE ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

- MTBE = METHYL TERTIARY BUTYL ETHER
- µg/L = MICROGRAMS PER LITER
- <0.50 = LESS THAN LABORATORY INDICATED REPORTING LIMITS



SITE PLAN ADAPTED FROM A SURVEY BY MORROW SURVEYING 2011 AND BASE MAPS DATED 1989 AND 2003 BY KEI AND 2007 BY ATC AND ASSOCIATES.

FIGURE 8
DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
 FEBRUARY 22, 2012
 76 SERVICE STATION NO. 6277
 15803 EAST 14TH STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. 14256277	PREPARED BY DD	DRAWN BY JH
DATE 3/13/12	REVIEWED BY DD	FILE NAME 6277-SMS



Tables

Table 1	Historical Soil Analytical Results
Table 2	Current Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Analytical Data
Table 4	Historical Grab-Groundwater Analytical Data
Table 5	Well Construction Details

Table 1
 HISTORICAL SOIL ANALYTICAL RESULTS
 76 Service Station No. 6277
 15803 East 14th Street, San Leandro, CA

Sample ID	Date	Sample Depth (feet)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	Ethanol (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	DRO (mg/kg)	RRO (mg/kg)	Lead (mg/kg)
ATC 2007																		
ATC-1d12.0	9/25/2007	12	100	<0.005	<0.005	0.016	0.029	0.024	0.19	<0.001	<0.001	<0.001	<0.10	--	--	57	--	8.15
ATC-1d20.0	9/25/2007	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<12	--	4.57
ATC-2d12.0	9/25/2007	12	560	<0.62	<0.62	8.8	48	0.83	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	51	--	7.62
ATC-2d20.0	9/25/2007	20	<1.0	<0.005	<0.005	<0.005	<0.005	0.011	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<12	--	3.57
ATC-3d12.0	9/25/2007	12	27	<0.63	<0.63	0.82	2.93	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	310	--	7.71
ATC-3d18.0	9/25/2007	18	<1.0	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	18	--	8.21
ATC-4d5.0	9/26/2007	5	1,000	<0.63	<0.63	11	43	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	170	--	6.48
ATC-4d20.0	9/26/2007	20	<1.0	<0.005	<0.005	<0.005	<0.005	0.015	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<12	--	2.85
ATC-5d5.0	9/26/2007	5	220	<0.62	1.2	6.2	25.2	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<12	--	6.27
ATC-5d20.0	9/26/2007	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<14	--	2.59
ATC-6d12.0	9/25/2007	12	59	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<12	--	9.37
ATC-6d15.0	9/25/2007	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.10	<0.001	<0.001	<0.001	<0.10	--	--	<12	--	5.27
Delta 2009																		
B-1@12	12/29/2009	12	603	0.71	12.3	19	103	0.013	0.021	<0.0029	<0.0029	<0.0029	--	<0.0029	--	16.3	55.2	7
B-1@15	12/29/2009	15	0.94	<0.0028	0.023	0.027	0.16	0.017	<0.014	<0.0028	<0.0028	<0.0028	--	<0.0028	--	<2.0	<9.9	6.2
B-1@20	12/29/2009	20	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	0.021	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	2.2	<10	<4.7
B-1@24	12/29/2009	24	<0.23	<0.0027	<0.0027	<0.0027	<0.0027	0.0087	<0.014	<0.0027	<0.0027	<0.0027	--	<0.0027	--	<2.0	<10	<4.8
B-1@30	12/29/2009	30	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	<2.0	<9.8	<4.3
B-2@5	12/29/2009	5	2.8	0.1	<0.0027	0.488	0.22	0.058	0.034	<0.0027	<0.0027	<0.0027	--	<0.0027	--	9.2	<10	10.1
B-2@10	12/29/2009	10	1.5	0.073	<0.0030	0.014	<0.0060	0.13	0.04	<0.0030	<0.0030	<0.0030	--	<0.0030	--	4	<9.9	6.3
B-2@20	12/29/2009	20	<0.24	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	--	<0.0028	--	<2.0	<10	5.5
B-2@24	12/29/2009	24	42.2	0.027	<0.0028	0.94	2.3	0.031	0.017	<0.0028	<0.0028	<0.0028	--	<0.0028	--	27.2	79.8	7
B-2@28	12/29/2009	28	<0.23	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	--	<0.0028	--	<2.0	<9.8	4.1
B-3@5	12/29/2009	5	<0.24	<0.0029	<0.0029	<0.0029	<0.0029	0.043	0.042	<0.0029	<0.0029	<0.0029	--	<0.0029	--	2.2	<9.9	19.7
B-3@10	12/29/2009	10	<0.24	<0.0028	<0.0028	<0.0028	<0.0028	0.044	0.023	<0.0028	<0.0028	<0.0028	--	<0.0028	--	2	<10	7.6
B-3@15	12/29/2009	15	<0.22	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.013	<0.0026	<0.0026	<0.0026	--	<0.0026	--	<2.0	<9.9	5.7
B-3@20.5	12/29/2009	20.5	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	0.0081	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	2.2	18.7	5.8
B-3@24.5	12/29/2009	24.5	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	0.0071	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	11.1	174	8.2
B-3@28	12/29/2009	28	<0.23	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	--	<0.0027	--	<2.0	<9.8	4.9
B-4@5	12/30/2009	5	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	22.5	379	37.9
B-4@10	12/30/2009	10	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	4	51.2	14.3
B-4@20	12/30/2009	20	<0.25	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	--	<0.0029	--	<2.0	<9.9	4.9
B-4@28	12/30/2009	28	<0.24	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	--	<0.0029	--	<2.0	<9.9	5.5
B-5@5	12/30/2009	5	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	3.6	40.1	15.4
B-5@12	12/30/2009	12	<0.24	<0.0029	0.0037	<0.0029	<0.0029	<0.0029	<0.014	<0.0029	<0.0029	<0.0029	--	<0.0029	--	11.6	247	8.4
B-5@15	12/30/2009	15	<0.25	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	--	<0.0029	--	<2.0	<9.9	6.1
B-5@20	12/30/2009	20	<0.23	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	--	<0.0028	--	<2.0	<10	6.5
B-5@25	12/30/2009	25	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	<2.0	<10	5.2
B-5@28	12/30/2009	28	<0.24	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	--	<0.0029	--	2.5	23.5	6.3
B-7@5	12/30/2009	5	<0.25	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	--	<0.0029	--	63.7	582	22.1
B-7@10	12/30/2009	10	1.3	0.018	<0.0030	0.0035	<0.0060	0.21	0.093	<0.0030	<0.0030	<0.0030	--	<0.0030	--	5.7	<9.8	7.3
B-7@20	12/30/2009	20	<0.25	<0.0030	<0.0030	<0.0030	<0.0030	0.014	<0.015	<0.0030	<0.0030	<0.0030	--	<0.0030	--	<2.0	<9.9	5.8
B-7@24	12/30/2009	24	<0.22	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.013	<0.0027	<0.0027	<0.0027	--	<0.0027	--	<2.0	<10	<4.5
Antea Group 2011																		
MW-7d9	4/5/2011	9	289	0.061	0.034	4.3	8.4	0.042	0.018	<0.0024	<0.0024	<0.0024	<0.32	<0.0024	<0.0024	--	20.7	8.9
MW-7d16	4/5/2011	16	0.9 M1	0.017	0.037	0.054	0.24	0.013	<0.012	<0.0024	<0.0024	<0.0024	<0.32	<0.0024	<0.0024	--	788	13.9
MW-7d20	4/5/2011	20	<0.24	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	<0.39	<0.0029	<0.0029	--	<9.9	6.3
MW-8d9	4/5/2011	9	0.75	0.02	<0.003	<0.003	<0.0089	0.086	0.023	<0.003	<0.003	<0.003	<0.39	<0.003	<0.003	--	<10	9.9
MW-8d13	4/5/2011	13	0.68	0.016	<0.0028	0.024	0.06	0.023	<0.014	<0.0028	<0.0028	<0.0028	<0.37	<0.0028	<0.0028	--	852	15.7
MW-8d20	4/5/2011	20	<0.23	<0.0023	<0.0023	<0.0023	<0.007	<0.0023	<0.012	<0.0023	<0.0023	<0.0023	<0.31	<0.0023	<0.0023	--	<10	<4.1
MW-9d8	4/5/2011	8	<0.22	<0.0026	<0.0026	<0.0026	<0.0078	<0.0026	<0.013	<0.0026	<0.0026	<0.0026	<0.35	<0.0026	<0.0026	--	<9.7	8.9
MW-9d20	4/5/2011	20	<0.24	<0.0028	<0.0028	<0.0028	<0.0085	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.38	<0.0028	<0.0028	--	<9.8	5.3
MW-9d24	4/5/2011	24	<0.21	<0.0027	<0.0027	<0.0027	<0.0082	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	--	<9.9	6.4
MW-10d10	4/5/2011	10	<0.21	<0.0025	<0.0025	<0.0025	<0.0075	0.028	<0.012	<0.0025	<0.0025	<0.0025	<0.33	<0.0025	<0.0025	<2.0	<10	8.5
MW-10d15	4/5/2011	15	<0.25	<0.0026	<0.0026	0.0039	0.012	<0										

TABLE 2
 CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
 76 Service Station No. 6277
 15803 EAST 14TH ST
 SAN LEANDRO, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA												
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-7	2/22/2012	34.60	9.53	NP	25.07	655	14.9	1.7	16.3	38.8	112	<0.50	<0.50	<0.50	10.9	<250	<1.0	<1.0
MW-8	2/22/2012	34.85	9.53	NP	25.32	308	<0.50	<0.50	<0.50	<1.5	45.9	<0.50	<0.50	<0.50	7.4	<250	<1.0	<1.0
MW-9	2/22/2012	35.09	9.81	NP	25.28	248	<0.50	<0.50	<0.50	<1.5	2.4	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-10	2/22/2012	36.00	10.78	NP	25.22	173	<0.50	<0.50	<0.50	<1.5	33.6	<0.50	<0.50	<0.50	5.3	<250	<1.0	<1.0

Gauging Notes:

TOC - Top of Casing
 ft - Feet
 NP - LNAPL not present
 LNAPL - Light non-aqueous phase liquid
 * - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
 --- No information available

Analytical Notes:

< - Not detected at or above indicated laboratory reporting limit
 ug/L - micrograms/liter
 TPHg- Total Petroleum Hydrocarbons as gasoline
 MTBE- Methyl tertiary-butyl ether
 TBA- Tertiary-butyl alcohol
 DIPE- Di-isopropyl ether
 ETBE- Ethyl tertiary-butyl ether
 TAME- Tertiary-amyl methyl ether

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 6277
15803 EAST 14TH ST
SAN LEANDRO, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA												
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-7	4/18/2011	34.60	9.40	NP	25.20	2,420	22.4	12.4	11.3	449	152	<0.50	<0.50	<0.50	5.7	<250	<1.0	<1.0
	7/26/2011	34.60	9.43	NP	25.17	1,770	27.3	18.9	66.4	341	102	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	10/14/2011	34.60	9.37	NP	25.23	1,480	45.0	6.6	58.2	184	110	<0.50	<0.50	<0.50	23.0	<250	<1.0	<1.0
	2/22/2012	34.60	9.53	NP	25.07	655	14.9	1.7	16.3	38.8	112	<0.50	<0.50	<0.50	10.9	<250	<1.0	<1.0
MW-8	4/18/2011	34.85	9.40	NP	25.45	439	1.4	0.75	2.8	14.2	28.3	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	7/26/2011	34.85	9.42	NP	25.43	336	4.0	<0.50	<0.50	<1.5	42.7	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	10/14/2011	34.85	9.35	NP	25.50	221	2.2	<0.50	<0.50	<1.5	30.7	<0.50	<0.50	<0.50	5.5	<250	<1.0	<1.0
	2/22/2012	34.85	9.53	NP	25.32	308	<0.50	<0.50	<0.50	<1.5	45.9	<0.50	<0.50	<0.50	7.4	<250	<1.0	<1.0
MW-9	4/18/2011	35.09	9.55	NP	25.54	208	<0.50	<0.50	<0.50	<1.5	1.6	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	7/26/2011	35.09	9.58	NP	25.51	176	<0.50	<0.50	<0.50	<1.5	1.7	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	10/14/2011	35.09	9.54	NP	25.55	154	<0.50	<0.50	<0.50	<1.5	2.2	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	2/22/2012	35.09	9.81	NP	25.28	248	<0.50	<0.50	<0.50	<1.5	2.4	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-10	4/18/2011	36.00	10.55	NP	25.45	513	<0.50	<0.50	6.9	40.0	14.9	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	7/26/2011	36.00	10.74	NP	25.26	169	<0.50	<0.50	1.4	<1.5	22.9	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	10/14/2011	36.00	10.75	NP	25.25	141	<0.50	<0.50	0.59	<1.5	29.7	<0.50	<0.50	<0.50	6.1	<250	<1.0	<1.0
	2/22/2012	36.00	10.78	NP	25.22	173	<0.50	<0.50	<0.50	<1.5	33.6	<0.50	<0.50	<0.50	5.3	<250	<1.0	<1.0

Gauging Notes:

TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
-- - No information available

Analytical Notes:

< - Not detected at or above indicated laboratory reporting limit
ug/L - micrograms/liter
TPHg- Total Petroleum Hydrocarbons as gasoline
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether

Table 4

HISTORICAL GRAB-GROUNDWATER ANALYTICAL DATA

76 Service Station No. 6277
15803 East 14th Street, San Leandro, California

Sample ID	Date	TPHg (µg/L)	DRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	DIPE (µg/L)	ETBE (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
ATC 2007															
ATC-1	9/25/2007	140	15,000	<5.0	<5.0	<5.0	7	7	<10	<0.8	<0.8	<0.8	<50	<1.0	--
ATC-2	9/25/2007	860	5,200	39	<5.0	27	117	210	<10	<0.8	<0.8	<0.8	<50	<1.0	--
ATC-3	9/25/2007	3,700	8,100	<5.0	<5.0	160	630	<0.5	<10	<0.8	<0.8	<0.8	<50	<1.0	--
ATC-4	9/26/2007	6,400	1,900	60	120	300	1,040	37	<10	<0.8	<0.8	<0.8	<50	<1.0	--
ATC-5	9/26/2007	2,500	810	33	64	110	400	6	<10	<0.8	<0.8	<0.8	<50	<1.0	--
ATC-6	9/26/2007	93	910	<5.0	<5.0	<5.0	<5.0	<0.5	<10	<0.8	<0.8	<0.8	<50	<1.0	--
Delta 2009															
B-1	12/29/2009	2,110	494	86.9	56	114	357	80.2	<5.0	<1.0	<1.0	<1.0	--	--	--
B-2	12/29/2009	858	372	25	<1.0	26.9	47.7	7.3	<5.0	<1.0	<1.0	<1.0	--	--	--
B-3	12/29/2009	254	311	<1.0	<1.0	1.2	3.2	5.8	<5.0	<1.0	<1.0	<1.0	--	--	--
B-4	12/30/2009	158	411	<1.0	<1.0	<1.0	<3.0	2	<5.0	<1.0	<1.0	<1.0	--	--	--
B-5	12/30/2009	104	188	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<1.0	<1.0	<1.0	--	--	--
B-7	12/30/2009	1,340	479	4.7	6.9	61.1	284	59.5	<5.0	<1.0	<1.0	<1.0	--	--	--
Antea Group 2011															
MMW-7	4/18/2011	2,420	--	22.4	12.4	11.3	449	152	5.7	<0.50	<0.50	<0.50	<250	<1.0	<1.0
MMW-8	4/18/2011	439	--	1.4	0.75	2.8	14.2	28.3	<5.0	<0.50	<0.50	<0.50	<250	<1.0	<1.0
MMW-9	4/18/2011	208	--	<0.50	<0.50	<0.50	<1.5	1.6	<5.0	<0.50	<0.50	<0.50	<250	<1.0	<1.0
MMW-10	4/18/2011	513	--	<0.50	<0.50	6.9	40	14.9	<5.0	<0.50	<0.50	<0.50	<250	<1.0	<1.0

Notes:

- TPHg = total petroleum hydrocarbons as gasoline by CA LUFF
- DRO = Diesel range organics by EPA Method 8015B
- BTEX = benzene, toluene, ethyl-benzene, total xylenes by EPA Method 8260
- MTBE = Methyl t-butyl Ether by EPA Method 8260
- TBA = tert butyl alcohol by EPA Method 8260
- TAME = Tert-amy/methyl ether by EPA Method 8260
- DIPE = Diisopropyl ether by EPA Method 8260
- ETBE = Ethyl-tert-butyl-ether by EPA Method 8260
- 1,2-DCA = 1,2-Dichloroethane by EPA Method 8260
- EDB = 1,2-Dibromoethane by EPA Method 8260
- µg/L = micrograms per liter
- < = Below the laboratory's indicated reporting limit
- Bold = Above the laboratory's indicated reporting limit
- EPA = US Environmental Protection Agency
- = Not analyzed

TABLE 5
Well Construction Details
76 Service Station No. 6277
15803 East 14th Street
San Leandro, Ca

Well I.D.	Construction Date	Elevation (TOC feet above MSL)	Boring Depth (feet bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Casing Material	Slot Size (inches)	Screened Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Seal Interval (feet bgs)	Cement Seal Interval (feet bgs)	Comments
Groundwater Monitoring Wells												
MW-7	04/05/11	34.60	20	8	2	PVC	0.02	9-19	8-20	7-8	1-7	
MW-8	04/05/11	34.85	20	8	2	PVC	0.02	9-20	8-20	7-8	1-7	
MW-9	04/05/11	35.09	24	8	2	PVC	0.02	9-24	8-24	7-8	1-7	
MW-10	04/05/11	36.00	20	8	2	PVC	0.02	9-20	8-20	7-8	1-7	

Notes:

bgs = below ground surface

TOC = top of casing

MSL = mean sea level

-- = Not available

Elevations are in US survey feet, Vertical Datum is NGVD29

*Case Closure Request
76 Service Station No. 6277
Antea Group Project No. I40256277*



Appendix A

Historical Boring Logs

Client ConocoPhillips Company

Drill Contractor Vironex

LOG OF BORING ATC-1

SHEET 1 OF 1

Project Name ConocoPhillips Site No. 256277

Drill Method Geoprobe

Elevation (ft amsl) ---

Number 34.75119.3151

Drilling Started 9/25/07 Ended 9/25/07

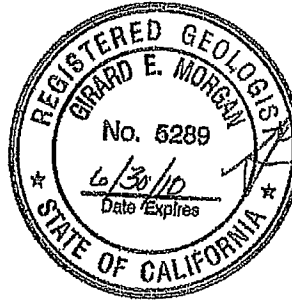
Total Depth 25.0

Location 15803 East 14th Street, San Leandro, CA

Logged By Jonathan Flomerfelt

Depth To Water ∇ ATD 24.0

DEPTH (feet)	SAMPLE NO.	BLOWS/ft	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5' bgs.	
5						CLAY. Very dark gray. High plasticity. Dry.	5
10	CT ATC-1-10		6.1	CH			10
	CT ATC-1-12		1366				
15	CT ATC-1-15		4.0	CL ML		SILTY CLAY. 80% clay. 20% silt. Reddish gray. High plasticity. Dry.	15
20	CT ATC-1-20		1.6	CH		CLAY. Black. High plasticity. Slightly damp.	20
25	CT ATC-1-25		0.0	CL		SANDY CLAY. 70% clay. 30% fine grained sand. Pink. Damp.	25
						Bottom of hole at 25 feet	



LOG A: EWINN05 256277 BORING LOGS.GPJ LOG A: EWINN05.GDT 10/17/07



9185 S. Farmer Ave., Ste 107
 Tempe, Arizona 85284
 Phone: 480.894.2056
 Fax: 480.894.2497

Remarks : Groundwater encountered at approximately 24' bgs.

See key sheet for symbols and abbreviations used above.

Client ConocoPhillips Company Drill Contractor Vironex
 Project Name ConocoPhillips Site No. 256277 Drill Method Geoprobe
 Number 34.75118.3151 Drilling Started 9/25/07 Ended 9/25/07
 Location 15803 East 14th Street, San Leandro, CA Logged By Jonathan Flomerfelt

LOG OF BORING ATC-2

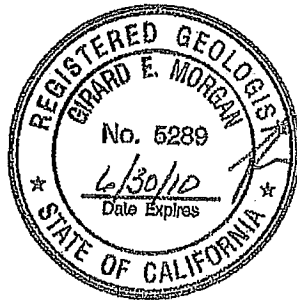
SHEET 1 OF 1

Elevation (ft amsl) --

Total Depth 20.0

Depth To Water ∇ ATD 20.0

DEPTH (feet)	SAMPLE NO.	BLOWS/6" BL	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5'	
5						SILTY CLAY. 80% clay. 20% silt. Black. Dry.	5
10	CT ATC-2-10		81.9	CL ML			10
	CT ATC-2-12		1032				
15	CT ATC-2-15		1.8	CH		CLAY. Pale red. High plasticity. Damp.	15
20	CT ATC-2-20		0.0	CL ML		SILTY CLAY. 65% clay. 35% silt. White. Medium to high plasticity. Damp.	20
						Bottom of hole at 20 feet	



[Handwritten Signature]

LOG ALEVIN05 256277 BORING LOGS.GPJ LOG A.EWIN05.GDT 10/17/07



9185 S. Farmer Ave., Ste 107
 Tempe, Arizona 85284
 Phone: 480.894.2056
 Fax: 480.894.2497

Remarks : Groundwater encountered at approximately 20' bgs.

See key sheet for symbols and abbreviations used above.

Client ConocoPhillips Company Drill Contractor Vironex **LOG OF BORING ATC-3**
 Project Name ConocoPhillips Site No. 256277 Drill Method Geoprobe SHEET 1 OF 1
 Number 34.75118.3151 Drilling Started 9/25/07 Ended 9/25/07 Elevation (ft amsl) --
 Location 15803 East 14th Street, San Leandro, CA Logged By Jonathan Flomerfelt Total Depth 20.0
 Depth To Water ▽ ATD 18.0

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Alrknifed to 5'.	
5				CH	CLAY.		5
10	CT ATC-3-10		0.0	MH	CLAYEY SILT.	Gray with some oxidation staining. Low plasticity. Dry.	10
	CT ATC-3-12		794	CH	CLAY.	Very dark gray.	
15	CT ATC-3-15		1.4	CL ML	SILTY CLAY.	Light yellowish brown. Medium plasticity. Dry.	15
	CT ATC-3-18		1.6	CH	CLAY.	Grayish brown. High plasticity. Damp.	
20					Black.		20
						Bottom of hole at 20 feet	
25							25



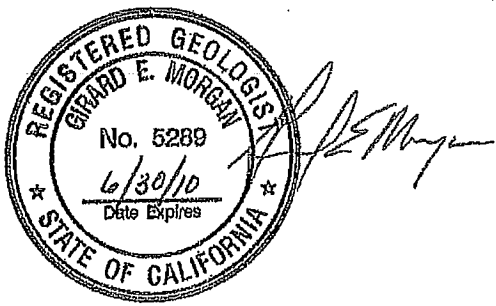
LOG A EWINN05 256277 BORING LOGS.GPJ LOG A.EWINN05.GDT 10/17/07


 9185 S. Farmer Ave., Ste 107
 Tempe, Arizona 85284
 Phone: 480.894.2056
 Fax: 480.894.2497

Remarks: Groundwater encountered at approximately 18' bgs.
 See key sheet for symbols and abbreviations used above.

Client ConocoPhillips Company Drill Contractor Vironex **LOG OF BORING ATC-4**
 Project Name ConocoPhillips Site No. 256277 Drill Method Geoprobe SHEET 1 OF 1
 Number 34.75118.3151 Drilling Started 9/25/07 Ended 9/25/07 Elevation (ft amsl) --
 Location 15803 East 14th Street, San Leandro, CA Logged By Jonathan Flomerfelt Total Depth 20.0
 Depth To Water ∇ ATD 20.0

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5'	
5	CT ATC-4-5		2272	MH		CLAYEY SILT. 80% silt. 20% clay. Dark bluish gray. Damp.	5
10	CT ATC-4-10		885	CH		CLAY. Dark greenish gray.	10
15	CT ATC-4-15		19.4	CL ML		SILTY CLAY. 75% clay. 25% silt. Light yellowish brown. Medium to high plasticity. Damp.	15
20	CT ATC-4-20		10.4	CH		CLAY. Very pale brown. High plasticity. Damp to moist.	20
						Bottom of hole at 20 feet	20
25							25



LOG A.EWANN05.256277 BORING LOGS.GPJ LOG A.EWANN05.GDT 10/17/07

VATC
ASSOCIATES INC.
9185 S. Farmer Ave., Ste 107
Tempe, Arizona 85284
Phone: 480.894.2058
Fax: 480.894.2497

Remarks: Groundwater encountered at approximately 20' bgs.

See key sheet for symbols and abbreviations used above.

Client ConocoPhillips Company

Drill Contractor Vironex

LOG OF BORING ATC-5

SHEET 1 OF 1

Project Name ConocoPhillips Site No. 256277

Drill Method Geoprobe

Elevation (ft amsl) --

Number 34.75118.9151

Drilling Started 9/26/07 Ended 9/26/07

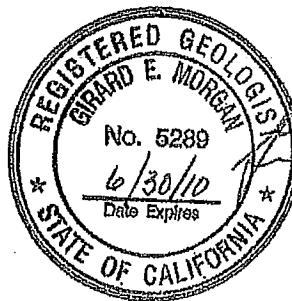
Total Depth 20.0

Location 15803 East 14th Street, San Leandro, CA

Logged By Jonathan Flomerfelt

Depth To Water ▽ ATD 20.0

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5'.	
5	CT ATC-5-5		846	CH		CLAY. Black. Medium plasticity.	5
10	CT ATC-5-10		118	MH		CLAYEY SILT. 75% silt. 25% clay. Dark gray. Dry.	10
15	CT ATC-5-15		14.3	CL ML		SILTY CLAY. 80% clay. 20% silt. Pale brown. High plasticity. Damp.	15
20	CT ATC-5-20		0.0	CH		CLAY. White. High plasticity. Damp.	20
						Bottom of hole at 20 feet	▽ 20



Girard E. Morgan

LOG A EWING05-256277 BORING LOGS.GPJ LOG A EWING05.GDT 10/17/07



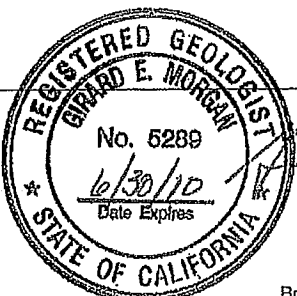


9185 S. Farmer Ave., Ste 107
Tempe, Arizona 85284
Phone: 480.894.2056
Fax: 480.894.2497

Remarks: Groundwater encountered at approximately 20' bgs.

See key sheet for symbols and abbreviations used above.

Client ConocoPhillips Company Drill Contractor Vironex **LOG OF BORING ATC-6**
 Project Name ConocoPhillips Site No. 256277 Drill Method Geoprobe SHEET 1 OF 1
 Number 34.75118.3151 Drilling Started 9/25/07 Ended 9/25/07 Elevation (ft amsl) --
 Location 15803 East 14th Street, San Leandro, CA Logged By Jonathan Flomerfelt Total Depth 25.0
 Depth To Water ▽ ATD 18.0

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5' bgs.	
5						No recovery.	5
10	CT ATC-6-12		1096	CH		CLAY. Dark gray.	10
15				CL ML		SILTY CLAY. 75% clay. 25% silt. Pale brown. High plasticity. Damp.	15
20							20
25							Bottom of hole at 25 feet

LOG A EWINNUS 256277 BORING LOGS.GPJ LOG A EWINNUS.GDT 10/17/07


 9185 S. Farmer Ave., Ste 107
 Tempe, Arizona 85204
 Phone: 480.894.2056
 Fax: 480.894.2497

Remarks : Groundwater encountered at approximately 18' bgs.
 See key sheet for symbols and abbreviations used above.

Delta

Consultants, Inc.

Project No: 140256277 Client: ELT Boring No: B-1
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Page 1 of 2
 Driller: Gregg Drilling Date Drilled: 12/30/2009 Location Map - See Site Map for Location
 Drilling Method: Direct Push Hole Diameter: 2" ∇ = First Water
 Sampling Method: Sample Tube Hole Depth: 30' ▼ = Static Groundwater
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
					Moist		Air Knife	1		CL	4" of asphalt
								2			
					Moist			3			
								4		CL	Lean Clay: 95% clay, 5% fine grained sand, black, moist, medium stiff
								5			NO RECOVERY
								6			
								7			
								8			
								9			
								10			
								11			
					Moist	197		12		CL	Lean Clay: 95% clay, 5% fine grained sand, olive green, moist, medium stiff
								13			
								14			as above: turning brown in color
					Moist	14.5		15			
								16			
								17			
								18			
								19			as above: turning dark brown in color
					Moist	11.2		20			

Delta

Consultants, Inc.

Project No: I40256277 Client: ELT
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Boring No: B-1
 Driller: Gregg Drilling Date Drilled: 12/30/2009 Page 2 of 2
 Drilling Method: Direct Push Hole Diameter: 2" Location Map - See Site Map for Location
 Sampling Method: Sample Tube Hole Depth: 30'
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

▽ = First Water
 ▼ = Static Groundwater

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
				▽	Moist	2.1		21		CL	Lean Clay: 95% clay, 5% fine grained sand dark brown, moist, medium stiff
								22			
								23			
								24		SM	Silty Sand: 75% fine grained sand, 25% silt, light brown, moist, loose
								25			NO RECOVERY
								26			
								27			
								28			
					Wet	1.8		29		SM	Silty Sand with Gravel: 65% sand (fine to medium grained), 20% silt, 15% fine gravel, light brown, wet, loose
								30			Boring terminated at 30 feet below ground surface
								31			
								32			
								33			
								34			
								35			
								36			
								37			
								38			
								39			
								40			

Delta

Consultants, Inc.

Project No:	140256277	Client:	ELT	Boring No:	B-2
Logged By:	Ed Weyrens	Location:	15803 East 14th Street, San Leandro, CA	Page 1 of 2	
Driller:	Gregg Drilling	Date Drilled:	12/29/2009	Location Map - See Site Map for Location	
Drilling Method:	Direct Push	Hole Diameter:	2"	▽	= First Water
Sampling Method:	Sample Tube	Hole Depth:	28'	▽	= Static Groundwater
Casing Type:	-	Well Diameter:	-		
Slot Size:	-	Well Depth:	-		
Gravel Pack:	-	Casing Stickup:	-		

Elevation	Northing	Easting
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Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/ft)	Depth (feet)	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
					Moist	9.9	Air Knife	1		CL	4" of asphalt
								2			
								3			
								4			
								5			
								6			
								7		ML	Silt with Sand: 80% silt, 20% fine grained sand, light olive green, moist, loose
								8			
								9			
					Moist	5.6		10		CL	Lean Clay: 95% clay, 5% fine grained sand, dark brown, moist, medium stiff
								11			
								12			
								13			
								14			
								15			
								16		CL	Lean Clay: 90% clay, 10% fine grained sand
								17		SP	light brown to brown, moist, medium stiff
								18		CL	two small lenses of poorly graded sand with gravel
								19		SP	
								20		CL	Lean Clay: 90% clay, 10% fine grained sand, light brown to brown, moist, medium stiff
					Moist	0.4					

Delta

Consultants, Inc.

Project No: 140256277 Client: ELT Boring No: B-2
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Page 2 of 2
 Driller: Gregg Drilling Date Drilled: 12/29/2009 Location Map - See Site Map for Location
 Drilling Method: Direct Push Hole Diameter: 2" ∇ = First Water
 Sampling Method: Sample Tube Hole Depth: 28' ▽ = Static Groundwater
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/ft)	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
				∇	Moist	11.9		21		CL	Lean Clay: 90% clay, 10% fine grained sand, light brown to brown, moist, medium stiff
							22				
								23			
								24			
								25			
								26		SP	Poorly Graded Sand: 85% fine grained sand, 10% fine gravel, 5% silt, light brown, wet, loose
								27			
					Wet	0.7		28			Boring terminated at 28 feet below ground surface.
								29			
								30			
								31			
								32			
								33			
								34			
								35			
								36			
								37			
								38			
								39			
								40			



Project No: 140256277 Client: ELT Boring No: B-3
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Page 1 of 2
 Driller: Gregg Drilling Date Drilled: 12/29/2009 Location Map - See Site Map for Location
 Drilling Method: Direct Push Hole Diameter: 2" = First Water
 Sampling Method: Sample Tube Hole Depth: 28' = Static Groundwater
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
								1		CL	4" of asphalt
								2			Gravelly Lean Clay with Sand: 65% clay, 20% fine gravel (angular to subangular), 15% sand (fine to medium grained), olive green, moist, soft
								3			
								4			
					Moist	2.6		5		CL	Sandy Lean Clay: 60% clay, 40% fine grained sand, black, moist, medium stiff
								6			
								7			as above: turning olive green in color
								8			
								9			as above: with 90% clay, 10% fine grained sand, turning dark brown in color
					Moist	1.0		10			
								11			
								12			
								13			
								14		SW	Well Graded Sand with Gravel: 85% sand (fine to medium grained), 15% fine gravel, dark brown, moist, loose
					Moist	0.9		15		CL	Lean Clay: 95% clay, 5% fine grained sand, light brown, moist, medium stiff
								16			
								17			
								18			
								19			
								20		SM	Silty Sand with Gravel: (see next page)



Project No: 140256277 Client: ELT Boring No: B-3
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Page 2 of 2
 Driller: Gregg Drilling Date Drilled: 12/29/2009 Location Map - See Site Map for Location
 Drilling Method: Direct Push Hole Diameter: 2" ∇ = First Water
 Sampling Method: Sample Tube Hole Depth: 28' \blacktriangledown = Static Groundwater
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
				∇	Moist	8.4		21		SM	Silty Sand with Gravel: 50% sand (fine to medium grained), 30% silt, 20% fine gravel (rounded), light brown, moist, loose
								22			
								23			
								24		ML	Silt with Sand: 80% silt, 20% fine grained sand, light brown, moist, loose
					Wet	1.7		25			
								26		SW-SM	Well Graded Sand with Silt and Gravel: 75% sand (fine to coarse grained), 15% fine gravel, 10% silt, light brown, wet, loose
								27		ML	Silt with Sand: 80% silt, 20% fine grained sand, light brown, moist, medium dense
					Moist	1.5		28			Boring terminated at 28 feet below ground surface.
								29			
								30			
								31			
								32			
								33			
								34			
								35			
								36			
								37			
								38			
								39			
								40			



Project No: 140256277 Client: ELT Boring No: B-4
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Page 1 of 2
 Driller: Gregg Drilling Date Drilled: 12/30/2009
 Drilling Method: Direct Push Hole Diameter: 2" Location Map - See Site Map for Location
 Sampling Method: Sample Tube Hole Depth: 28' = First Water
 Casing Type: - Well Diameter: - = Static Groundwater
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
					Moist	0.3		1	SW		4" of asphalt
						2		Well Graded Sand with Gravel: 70% sand (50% fine, 50% medium grained), 30% fine gravel, brown, moist, dense			
						3					
						4					
						5					
					Moist	0.3		6			
								7			
								8			
								9			
								10			
								11	GP	Poorly Graded Gravel with Sand: 80% fine gravel (angular to rounded), 20% sand (fine to coarse grained), brown, wet	
								12		NO RECOVERY	
								13			
								14			
								15			
								16	CL	Lean Clay: 95% clay, 5% fine grained sand, grey, moist, medium stiff	
								17			
								18			
								19			
					Moist	0.5		20		NO RECOVERY	

Delta

Consultants, Inc.

Project No: 140256277 Client: ELT Boring No: B-4
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA Page 2 of 2
 Driller: Gregg Drilling Date Drilled: 12/30/2009 Location Map - See Site Map for Location
 Drilling Method: Direct Push Hole Diameter: 2" = First Water
 Sampling Method: Sample Tube Hole Depth: 28' = Static Groundwater
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
								21			NO RECOVERY
								22			
					▽			23		GP	Poorly Graded Gravel: 90% fine gravel, 10% sand (fine to coarse grained), brown, wet, loose
								24			
								25			
								26		SP	Poorly Graded Sand: 90% fine grained sand, 5% silt, 5% fine gravel, brown, wet, loose
					Wet	0.3		27			
								28			Boring terminated at 28 feet below ground surface.
								29			
								30			
								31			
								32			
								33			
								34			
								35			
								36			
								37			
								38			
								39			
								40			

Delta

Consultants, Inc.

Project No:	140256277	Client:	ELT	Boring No:	B-5
Logged By:	Ed Weyrens	Location:	16803 East 14th Street, San Leandro, CA	Page 1 of 2	
Driller:	Gregg Drilling	Date Drilled:	12/30/2009	Location Map - See Site Map for Location	
Drilling Method:	Direct Push	Hole Diameter:	2"	▽	= First Water
Sampling Method:	Sample Tube	Hole Depth:	32'	▼	= Static Groundwater
Casing Type:	-	Well Diameter:	-		
Slot Size:	-	Well Depth:	-		
Gravel Pack:	-	Casing Stickup:	-		

Elevation	Northing	Easting
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Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
							↑ Air Knife ↓	1		SW-SC	4" of asphalt
					Moist	0.2		2			Well Graded Sand with Clay and Gravel: 60% sand (fine to medium grained), 30% fine gravel, 10% clay, brown, moist, medium dense
								3			
								4			
								5			
								6			
								7		CL	Lean Clay: 95% clay, 5% fine grained sand, dark brown, moist, stiff
								8			
								9			
								10			
								11			
					Moist	0.3		12		SW-SC	Well Graded Sand with Clay and Gravel: 60% sand (fine to coarse grained), 30% fine gravel, 10% clay, brown, moist, medium dense
								13			
								14			
					Moist	0.5		15		CL	Lean Clay: 95% clay, 5% fine grained sand, light grey, moist, stiff
								16			
								17			
								18		SW	Well Graded Sand: 85% sand (fine to coarse grained), 10% fine gravel, 5% silt, brown, moist, loose
								19			
					Moist	0.4		20		CL	Lean Clay: 95% clay, 5% fine grained sand, dark grey, moist, medium stiff



Project No:	140256277	Client:	ELT	Boring No:	B-5
Logged By:	Ed Weyrens	Location:	15803 East 14th Street, San Leandro, CA	Page 2 of 2	
Driller:	Gregg Drilling	Date Drilled:	12/30/2009	Location Map - See Site Map for Location	
Drilling Method:	Direct Push	Hole Diameter:	2"	▽	= First Water
Sampling Method:	Sample Tube	Hole Depth:	32'	▼	= Static Groundwater
Casing Type:	-	Well Diameter:	-		
Slot Size:	-	Well Depth:	-		
Gravel Pack:	-	Casing Stickup:	-		

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
					Moist			21		CL	Lean Clay: 95% clay, 5% fine grained sand, dark grey, moist, medium stiff
					Dry			22		SP	Poorly Graded Sand: 95% fine grained sand, 5% silt, brown, dry, loose
								23		CL	Lean Clay with Sand: 75% clay, 25% coarse grained sand, light grey, moist, medium stiff
								24		ML	Silt with Sand: 85% silt, 15% fine grained sand, moist, loose
					Moist	0.4		25			
								26			
								27			
								28			
					▽	0.7		29		SW	Well Graded Sand: 95% fine grained sand, 5% silt, brown, wet, loose
								30			Not enough recovery for sample
								31			
								32			Boring terminated at 32 feet below ground surface.
								33			
								34			
								35			
								36			
								37			
								38			
								39			
								40			



Project No: 140256277 Client: ELT
 Logged By: Ed Weyrens Location: 15803 East 14th Street, San Leandro, CA
 Driller: Gregg Drilling Date Drilled: 12/30/2009
 Drilling Method: Direct Push Hole Diameter: 2"
 Sampling Method: Sample Tube Hole Depth: 24'
 Casing Type: - Well Diameter: -
 Slot Size: - Well Depth: -
 Gravel Pack: - Casing Stickup: -

Boring No: B-7
 Page 1 of 1

Location Map - See Site Map for Location

= First Water
 = Static Groundwater

Elevation Northing Easting

Well Completion			Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing	Backfill									
								1		SW-SM	4" asphalt
								2			Well Graded Sand with Silt and Gravel: 70% sand (40% fine, 30% medium, 30% coarse grained), 20% fine gravel, 10% silt, brown, moist, dense
								3			
								4			
								5			
				Moist	0.6			6		CL	Lean Clay: 95% clay, 5% fine grained sand, black, moist, medium stiff
								7			
								8		ML	Silt with Sand: 80% silt, 20% fine grained sand, olive green, dry, medium dense
								9		SW	Well Graded Sand: 85% fine to coarse grained sand, 10% fine gravel, 5% silt, brown, dry, loose
				Moist	6.0			10		CL	Lean Clay: 95% clay, 5% fine grained sand, black, moist, medium stiff
								11			
								12			NO RECOVERY
								13			
								14			
								15			
								16			as above: with more moisture
								17			as above: turning grayish-brown in color
								18			
								19			
				Moist	0.2			20			
								21		CL	Sandy Lean Clay with Gravel: 55% clay, 35% fine to coarse grained sand, 10% fine gravel, dark brown, wet, soft
								22		CL	Lean Clay: 95% clay, 5% fine-grained sand interbedded, very light brown (almost white), wet, medium stiff
								23			
				Wet	0.3			24			as above: dry @ 24'
								25			Boring terminated at 24 feet below ground surface.



Project No: 140256277 Client: COP-ELT
 Logged By: ETW Location: 15803 East 14th Street
 Driller: Gregg Date Drilled: 4/5/2011
 Drilling Method: HSA Hole Diameter: 8"
 Sampling Method: Direct Push Hole Depth: 20'
 Casing Type: PVC Well Diameter: 2"
 Slot Size: 0.02 Well Depth: 19'
 Gravel Pack: #3 First Water Depth: 16'
 Static Water Depth: 10'

Boring/Well No: MW-7
 Page 1 of 1

Location Map

Elevation: Northing: Easting:

Backfill	Well Completion	Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Interval	Soil Type	LITHOLOGY / DESCRIPTION
			dry			1			SM	Asphalt (4 inches thick) Class II AB
						2				Silty Sand; 65% sand, 30% silt, 5% gravel (large), light brown to dark brown, dry, sand is fine to coarse grain
						3				
						4				
						5	X			
						6	X			
			dry	1.4		7	X		ML	Silt; 95% silt, 5% fine sand, olive green, dry
						8	X			
			dry	7.4	MW-7d9	9	X	O	CL	Clay, 95% clay, 5% fine sand, olive green, dry
						10	X			
						11	X			
						12	X			
						13	X			
						14	X			
						15	X			
			wet	5.1	MW-7d16	16	X	O	SW	Well graded sand w/ gravel; 80% sand, 15% gravel, 5% silt, dark brown, wet, sand is fine to coarse grain, gravel is small
			wet			17	X		CL	Clay; 95% clay, 5% sand, dark brown, wet
						18	X			
			wet	0.6	MW-7d20	19	X		ML	Sandy silt; 65% silt, 35% fine sand, pale grey, wet
						20	X	O		
						21				
						22				

TD = 20 feet bgs



Project No: I40256277 Client: COP-ELT
 Logged By: ETW Location: 15803 East 14th Street
 Driller: Gregg Date Drilled: 4/5/2011
 Drilling Method: HSA Hole Diameter: 8"
 Sampling Method: Direct Push Hole Depth: 20"
 Casing Type: PVC Well Diameter: 2"
 Slot Size: 0.02 Well Depth: 20'
 Gravel Pack: #3 First Water Depth:
 Static Water Depth: 10.20'

Boring/Well No: MW-B
 Page 1 of 1

Location Map

Elevation: Northing: Easting:

Well Completion		Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample		Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing						Recovery	Interval		
			dry			1			ML	Asphalt (4 inches thick) Class II AB Sandy silt; 65% silt, 30% fine sand, 5% gravel (large), olive green to black, dry
			dry			2				
			dry			3				
			dry			4				
			dry			5	X			
			dry			6	X			
			dry			7	X			
			dry	8.1		8	X			
			moist	5.6	MW-8d9	9	X	O	CL	Clay, 95% clay, 5% fine sand, olive green, moist
			moist			10	X			
			moist	2.2	MW-8d13	13	X	O	SW	Well graded sand w/ gravel; 80% sand, 15% gravel, 5% clay, brown, moist, sand is medium to coarse, gravel is small
			moist	1.2		14	X		CL	Clay; 95% clay, 5% fine sand, light brown, moist
						15	X			
						16	X			
						17	X			
						18	X			
			moist	0.3	MW-8d20	19	X		ML	Silt w/ sand; 85% silt, 15% fine sand, pale brown, moist
						20	X	O		TD = 20 feet bgs.
						21				
						22				



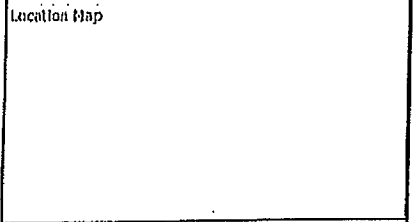
Project No: 140256277	Client: COP-ELT	Boring/Well No: MW-9
Logged By: ETW	Location: 15803 East 14th Street	Page 1 of 2
Driller: Gregg	Date Drilled: 4/5/2011	Location Map
Drilling Method: HSA	Hole Diameter: 8"	
Sampling Method: Direct Push	Hole Depth: 24	
Casing Type: PVC	Well Diameter: 2"	
Slot Size: 0.02	Well Depth: 24'	
Gravel Pack: #3	First Water Depth: 22'	
	Static Water Depth: 10.40'	

Elevation: _____ Northing: _____ Easting: _____

Well Completion	Water Level	Moisture Content	PTD Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill Casing								
		dry			1		SW	Asphalt (4 inches thick) Class II AB
					2			Well graded sand w/ gravel; 75% sand, 25% gravel, brown, dry, sand is fine to coarse grain, gravel is small to large
					3			
					4			
					5	X		
		dry	0.3		6	X	ML	Silt w/ sand; 80% silt, 20% fine sand, grey, dry
					7	X		
					8	X	CL	Clay; 95% clay, 5% fine sand, dark brown, moist
		moist	0.8	MW-9d8	9	X		
					10	X		
					11	X		
					12	X		
					13	X		
					14	X		Change color to brown
					15	X		
					16	X		
					17	X		
					18	X		
					19	X		
		moist	0.7	MW-9d20	20	X	CL	Sandy lean clay; 70% clay, 30% fine sand, pale brown, moist
					21	X		
					22	X	SC	Clayey sand; 60% fine sand, 40% clay, brown, wet



Project No: I40256277 Client: COP-ELT Boring/Well No: MW-9
 Logged By: ETW Location: 15803 East 14th Street Page 2 of 2
 Driller: Gregg Date Drilled: 4/5/2011
 Drilling Method: HSA Hole Diameter: 8"
 Sampling Method: Direct Push Hole Depth: 24'
 Casing Type: PVC Well Diameter: 2"
 Slot Size: 0.02 Well Depth: 24'
 Gravel Pack: #3 First Water Depth: 22'
 Static Water Depth: 10.40'



Elevation: Northing: Easting:

Well Completion Backfill Casing	Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
		wet	0.7	MW-9d24	23	X		Clayey sand; 60% fine sand, 40% clay, brown, wet
					24	X O		
					25			TD = 24 feet bgs
					26			
					27			
					28			
					29			
					30			
					31			
					32			
					33			
					34			
					35			
					36			
					37			
					38			
					39			
					40			
					41			
					42			
					43			
					44			



Project No: 140256277 Client: COP-ELT
 Logged By: ETW Location: 15803 East 14th Street
 Driller: Gregg Date Drilled: 4/5/2011
 Drilling Method: MSA Hole Diameter: 8"
 Sampling Method: Direct Push Hole Depth: 20'
 Casing Type: PVC Well Diameter: 2"
 Slot Size: 0.02 Well Depth: 20'
 Gravel Pack: #3 First Water Depth:
 Static Water Depth: 11.20'

Boring/Well No: MW-10
 Page 1 of 1

Location Map

Elevation: Northing: Easting:

Well Completion		Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			dry			1		Fill	Asphalt (4 inches thick) Class II AB Well graded gravel w/ sand; 55% gravel, 45% sand, brown, dry, sand is fine to coarse grain, gravel is large, material is fill
			dry	5.7		2			
			dry	5.7		3			
			dry	5.7		4			
			dry	5.7		5	X		
			dry	5.7		6	X	CL	Clay w/ sand; 85% clay, 15% fine sand, black, dry
			dry	5.7		7	X		
			dry	5.7		8	X		
			dry	5.7		9	X		Olive green
			moist	0.7		10	X	CL	Clay; 95% clay, 5% fine sand, black, moist, strong odor
			moist	0.7	MW-10d10	11	X		
			moist	0.7	MW-10d10	12	X		Dark brown
			moist	0.7	MW-10d10	13	X		
			moist	0.7	MW-10d10	14	X		
			moist	0.7	MW-10d10	15	X	SC	Clayey sand; 75% fine sand, 25% clay, light brown, moist
			moist	0.7	MW-10d10	16	X		
			moist	0.7	MW-10d10	17	X		
			moist	0.7	MW-10d10	18	X	CL	Clay; 90% clay, 10% fine sand, brown, moist
			moist	0.7	MW-10d10	19	X		Dark brown
			moist	0.9	MW-10d20	20	X		TD = 20 feet bgs
			moist	0.9	MW-10d20	21	X		
			moist	0.9	MW-10d20	22	X		

*Case Closure Request
76 Service Station No. 6277
Antea Group Project No. I40256277*



Appendix B

Historical Groundwater Flow Direction and Gradient Data and Rose Diagram

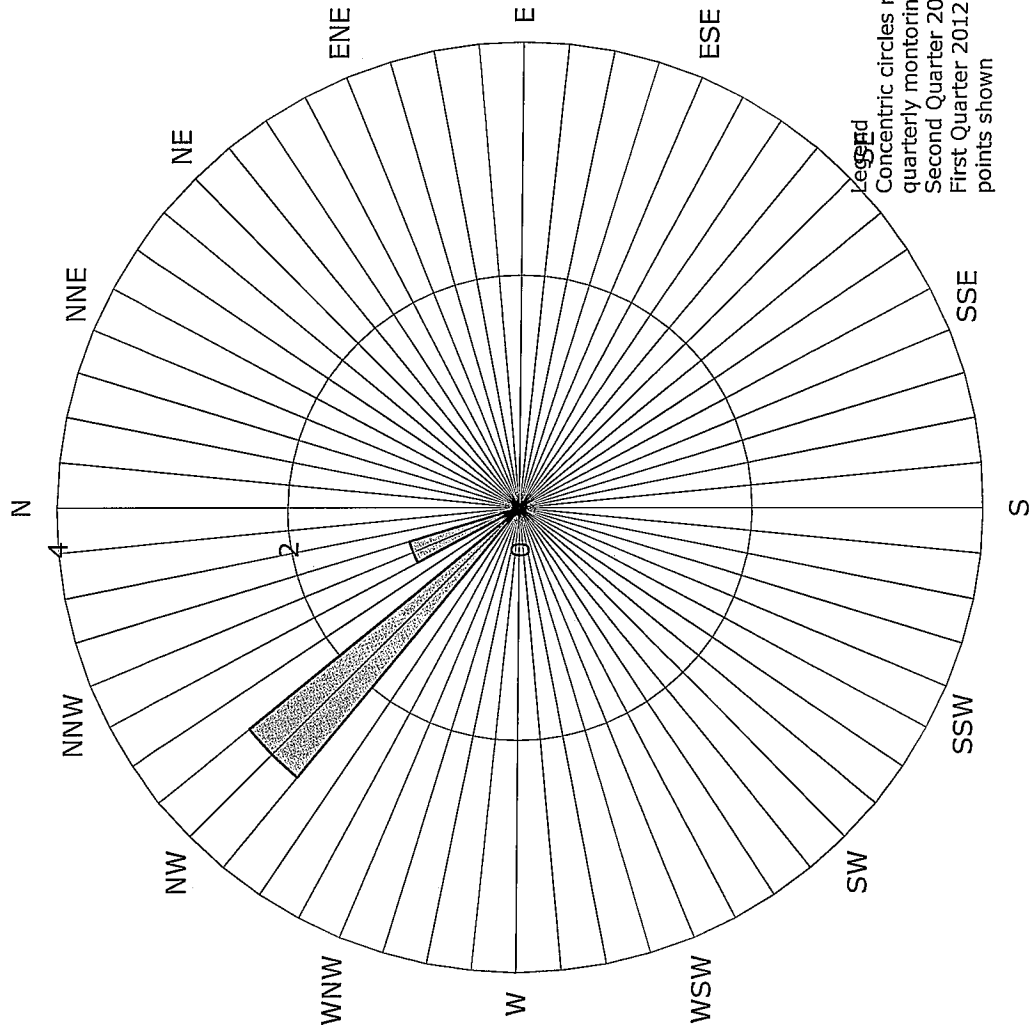
Historical Groundwater Gradient and Flow Direction Data

76 Service Station No. 6277
15803 East 14th Street
San Leandro, California

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction																
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
6277	04/18/11	0.003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	07/26/11	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	10/14/11	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	02/22/12	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
		0.004 Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1

Explanation
NA = Not available
Number of Events = 4

Historical Groundwater Flow Directions
76 Service Station No. 6277
 15803 East 14th Street
 San Leandro, California



Legend
 Concentric circles represent
 quarterly monitoring events
 Second Quarter 2011 through
 First Quarter 2012 4 data
 points shown

Groundwater Flow Direction