

August 29, 2008

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**GROUNDWATER MONITORING  
REPORT  
3rd Quarter, 2008**

20957 Baker Road  
Castro Valley, California 94565

AEI Project No. 273928

Prepared For

Nat and Darlene Piazza  
7613 Peppertree Road  
Dublin, California 94568

Prepared By

**AEI Consultants**  
2500 Camino Diablo  
Walnut Creek, CA 94597  
(800) 801-3224


**AEI**

CERTIFICATION STATEMENT  
GROUNDWATER MONITORING  
REPORT  
3<sup>rd</sup> Quarter, 2008

209057 Baker Road  
Castro Valley, California 94568

I DECLARE, UNDER PENALTY OF PERJURY, THAT THE INFORMATION AND/OR  
RECOMMENDATIONS CONTAINED IN THE ATTACHED DOCUMENT OR  
REPORT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

  
-----  
NATALE PIAZZA

  
-----  
DATE

  
-----  
DARLENE J. PIAZZA

  
-----  
DATE



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ENVIRONMENTAL & ENGINEERING SERVICES

[www.aeiconsultants.com](http://www.aeiconsultants.com)

August 29, 2008

Nat and Darlene Piazza  
7613 Peppertree Road  
Dublin, California 94568

**Subject: Quarterly Groundwater Monitoring Report  
3rd Quarter, 2008**  
20957 Baker Road  
Castro Valley, California 94565  
AEI Project No. 273928

Dear Mr. and Mrs. Piazza:

AEI Consultants (AEI) has prepared this report on your behalf to document groundwater quality at the above referenced site (Figure 1: Site Location Map). The purpose of this activity was to monitor groundwater quality near the former underground storage tanks (USTs). This report presents the findings of the 3rd Quarter, 2008 groundwater monitoring event conducted on August 20, 2008.

## **I Site Description and Background**

The subject property (hereafter referred to as the “site” or “property”) is located at 20957 Baker Road in Castro Valley, California (Figure 1: Site Location Map). The site is located in a mixed residential and commercial/light-industrial area of Castro Valley. The site is approximately 81 feet by 300 feet in area; and is currently undeveloped and not in use. The site is partially covered with asphalt surfacing and concrete slabs with the remainder of the site graveled. The site occupies the southern two thirds of the fenced in area.

Baker Road makes up the east boundary of the site with a residential property to the east, beyond the road. Rutledge Road bounds the property to the west with commercial and residential property beyond the road. The property is bounded to the north by a partially vacant lot. The parcel to the north is split by a fence, with the southern half of the adjacent lot appearing to be part of the subject site. Two residential buildings are located in the northeast quadrant of this adjacent lot. To the south, the eastern half of the property is by an apartment complex and the western half bounded to the south by a plumbing contractor. The locations of these buildings relative to the subject site and locations of the former UST are shown on Figure 2, “Site Map”.

### Tank Removal

On April 21, 2004, AEI removed two 1,000-gallon USTs from the site (Figure 2). The removal was performed under permit from the ACEHS. Robert Weston, Inspector for the ACEHS, observed the tank removal. Two soil samples were collected from underneath each UST and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, xylenes (BTEX) and Methyl tertiary butyl ether (MTBE) by EPA Method 8021B/8015Cm. Total Petroleum Hydrocarbons as diesel (TPH-d) was analyzed by EPA Method 8015C and total lead by EPA method 7010.

Hydrocarbons were reported in all the soil samples analyzed. TPH-g was reported at concentrations ranging from 160 milligrams per kilogram (mg/kg) (T1W-EB8') to 1,400 mg/kg (T2W-EB8'). TPH-d was reported at concentrations ranging from 1,400 mg/kg (T2E-EB8') to 10,000 mg/kg (T1E-EB8'). Total xylenes were reported in two samples at 8.4 mg/kg (T2W-E8') and 0.25 mg/kg (T2E-EB8'). Benzene and ethylbenzene were reported as not detected. Total lead was reported at concentrations ranging from 6.1 mg/kg (T1W-E8') to 24 mg/kg (stockpile sample STKP1-4). The locations of the soil samples relative to subsequent soil samples are shown on Figure 3.

### Preliminary Site Investigation

AEI performed a Preliminary investigation at the property on May 18, 2005. Eight (8) soil borings (SB-1 through SB-8) were advanced to depths ranging from 14 ft. to 18 ft. below ground surface (bgs) using a Geoprobe<sup>®</sup> Model 5410 direct-push drilling rig. The locations of the soil borings are shown on Figure 2, Site Map.

No detectable concentrations of TPH-g, TPH-d, TPH-mo, MTBE or BTEX, were reported in any of the soil samples from depths of 7.5 to 11 feet bgs at or above detection limits of 1.0 mg/kg, 1.0 mg/kg, 5.0 mg/kg, 0.05 mg/kg, and 0.005 mg/kg, respectively. The results of soil analyses are summarized on Table 2.

TPH-g was reported in the groundwater sample from soil boring SB-2 (SB-2W) at concentration of 7,300 micrograms per liter ( $\mu\text{g/L}$ ). No TPH-g was reported in groundwater samples from any other borings at or above the detection limit of 50  $\mu\text{g/L}$ .

The maximum concentration of TPH-d was reported at a concentration of 23,000  $\mu\text{g/L}$  in the groundwater sample from boring SB-2 (SB-2W). TPH-d was reported in the other seven borings at concentrations ranging from ND<50  $\mu\text{g/L}$  (SB-7) to 670  $\mu\text{g/L}$  (SB-5).

TPH-mo was reported in groundwater samples from borings SB-1, SB-2, SB-5, SB-6 and SB-8 at concentrations ranging from 300  $\mu\text{g/L}$  (SB-6) to 1400  $\mu\text{g/L}$  (SB-1 and SB-5). No concentrations of TPH-mo were reported in groundwater samples from borings SB-3, SB-4 and SB-7 at or above a detection limit of 250  $\mu\text{g/L}$ .

No MTBE was reported in the groundwater samples from any of the borings at or above a detection limit of 5.0  $\mu\text{g/L}$ . The results of groundwater analyses are summarized on Table 3.

### Monitoring Well Installation

On October 12, 2007 AEI installed five (5) 2-inch inside diameter (ID) groundwater monitoring wells, one on each side of the former tank hold (MW-1, MW-2), one through the center of the backfill (IN-1) and two down gradient of the former tank hold (MW-3, MW-4). The details of well construction are summarized in Table 1, *Well Construction Details*.

Two soil samples from borings MW-1 through MW-3 and three soil samples from wells MW-4 and IN-1 were analyzed for TPH-g and MBTEX by EPA Method 8015/8021B and TPH-d, TPH-mo, and TPH-bo by method 8015C.

Analysis of soil sampled reported TPH-d in well IN-1 at concentrations of 4.0 mg/kg, 5.1 mg/kg, and ND<1.0 in samples collected at depths of 8.5 feet bgs, 10 feet bgs, and 12 feet bgs, respectively. No TPH-g, TPH-mo, BTEX or MTBE was reported in soil samples from well IN-1.

No TPH-g, TPH-d, TPH-mo, TPH-bo, BTEX or MTBE was reported in any of the soil samples analyzed from wells MW-1 through MW-4 at or above standard reporting limits.

The wells were initially developed on October 15, 2007. Depth to water at the time the wells were developed ranged from 11.00 feet bgs (IN-1) to 14.57 feet bgs (MW-4). On October 18, 2007, at the time of the initial sampling event, the depth to groundwater ranged from 10.89 feet bgs (IN-1) to 14.92 feet bgs (MW-4). Depth to water in the wells was on November 6, 2007 ranged from 8.00 feet bgs (MW-4) to 11.37 feet bgs (MW-2). The depth to water in well MW-4 was anomalously low when the wells were installed and at the three times depth to water was measured in October 2007.

Groundwater elevations on November 6, 2007 ranged from 148.59 feet bgs (MW-3) to 151.69 feet bgs (MW-4). The direction of groundwater flow at the time of measurement was to the south southeast with a groundwater gradient of 0.002 ft/ft. A historical summary of groundwater elevations can be found on Table 4.

Groundwater samples from the October 18, 2007 groundwater monitoring event were analyzed for TPH-g, MBTEX by method SW8021B/8015Cm and Total petroleum Hydrocarbons as Bunker oil (TPH-bo – C10+), TPH-d (C10-23) and TPH-mo (C18+) by method SW8015C.

No TPH-g, BTEX or MTBE were present at or above standard reporting limits in any of the groundwater samples.

No TPH-bo, TPH-d, or TPH-mo, were reported in samples from wells MW-2 through MW-4 and IN-1 at or above detection limits of 100 µg/L, 50 µg/L, and 250 µg/L, respectively. TPH-bo (C10+, middle - heavy residual fuel), TPH-d (C10 - 23, middle residual fuel), and TPH-mo (C18+ heavy residual fuel) were reported in the water sample from well MW-1 at concentrations of 56 µg/L, 140 µg/L, and ND<250 µg/L, respectively. The difference between concentrations reported for TPH-bo (C10+) and TPH-d suggest a TPH-mo concentration around 86 µg/L.

The initial groundwater monitoring wells indicate a significant decrease in dissolved hydrocarbon concentrations in the groundwater between soil boring grab sample (May 18, 2005) and the initial sampling of monitoring wells (October 18, 2007) had occurred. No hydrocarbons were reported in any groundwater samples since the January 14, 2008 monitoring event indicating that natural attenuation had

reduced residual hydrocarbons to non-detectable concentrations. All wells continue to report no detectable concentrations of petroleum hydrocarbons at the site. A historical summary of groundwater analyses can be found on Table 5.

During the first groundwater monitoring event (October 18, 2007) concentration hydrocarbons, oxygen, carbon dioxide, and methane in the vadose zone of the wells were measured using a RKI Eagle gas analyzer. The relative presence of these gases can be used as an estimate of the amount and type of biodegradation taking place in the subsurface.

Vapor samples were collected from the vadose zone in each of the five wells on site. Eagle gas detector contains multiple detectors that measure Total Hydrocarbons, methane, oxygen, and carbon dioxide. No hydrocarbons were detected in any of the wells. This is consistent with the results of soil and groundwater analyses from installation of the groundwater monitoring wells, which reported little or no volatile hydrocarbons present underlying the site. Oxygen content ranged from near normal, 20.8% in MW-1, to slightly depressed, 7.9% in MW-3, 15.9% in MW-2, and 12.4 % in IN-1. Carbon dioxide concentrations ranged from near normal, 0.4% in MW-1 to slightly elevated in MW-3 (7.3%) and IN-1 (5.0%). The vapor survey field data is summarized of Table 6.

Normal air composition is approximately 20.9% oxygen and 0.03% carbon dioxide. The depressed concentrations of oxygen and elevated concentrations of carbon dioxide in the soil gas is consistent with relatively low levels of biodegradation and the low levels of residual hydrocarbons seen in the soil and groundwater..

## **II Summary of Activities**

On August 20, 2008, AEI conducted the regularly scheduled quarterly groundwater monitoring event at the site. The well caps were removed from each well (MW-1 to MW-4 and IN-1), allowing the wells to equilibrate with atmospheric pressure. The depth to groundwater was measured with an electric water level indicator and recorded on the field data sheets.

Prior to sampling the wells, the well caps were all removed and the wells were allowed to equilibrate with the atmosphere for at least 15 minutes. The depth to water was then measured in each well to  $\pm 0.01$  foot using an electronic depth to water meter. Each well purged using a peristaltic pump with ¼-inch polyethylene drop tube. The wells were low flow <sup>(12)</sup> or micro-purged at a rate of approximately 0.5-liter per minute. During well purging temperature, pH, specific conductivity, dissolved oxygen, and oxidation-reduction potential (ORP) was measured at one-minute intervals. The wells were purged until the three successive readings are within  $\pm 0.1$  for pH,  $\pm 3\%$  for conductivity,  $\pm 10$  mv for ORP, and  $\pm 10\%$  for temperature between three consecutive measurements or until the well dewatered. Visual estimates of turbidity were noted during the purging of the wells.

Once the groundwater parameters stabilized water samples were collected from each well using the peristaltic pump. Water samples were collected into containers with appropriate

preservatives to each analysis. Samples for volatile analytes were collected into 40 milliliter (mL) hydrochloric acid preserved volatile organic analysis (VOA) vials, with zero headspace (no air bubbles). Samples were labeled with, at minimum, project number, sample number, time, date, and sampler's name. The samples were then entered on an appropriate chain-of-custody form and placed on water ice in the pre-chilled cooler pending same day transportation to the laboratory. Samples were transported the same day on ice under proper chain-of-custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644).

Five groundwater samples were analyzed for TPH-g, BTEX, and MTBE by EPA Methods SW8021B and SW8015Cm. Analysis for TPH-d was performed by EPA Method SW8015C.

### **III Field Results**

On July 12, 2008 the concentrations hydrocarbons, oxygen, carbon dioxide, and methane in the vadose zone were measured using a RKI Eagle gas analyzer.

Vapor samples were collected from the vadose zone in each of the five wells on site. No methane or hydrocarbons were detected in any of the wells. Oxygen concentrations were below normal atmospheric concentrations, ranging from 11.3% in MW-4, to 9.2% in IN-1. Carbon dioxide concentrations were elevated, ranging from 9.4% in MW-IN-1 to 6.0% IN-1. The vapor survey field data is summarized of Table 7.

No hydrocarbon odor was noted while groundwater was being purged from of the wells. No sheen was detected at any of the wells. Groundwater levels for the current monitoring episode ranged from 148.53 (MW-1) to 148.27 (MW-4) feet above mean sea level (amsl). The average groundwater elevation was 1.23 feet lower than at the time of the previous monitoring event. The direction of groundwater appears to flow outward in a radial pattern from MW-1. This pattern was seen previously in data collected on October 15, 2007 and October 22, 2007. Apparent gradients at the site have exhibited a high degree of variability since the wells were installed. This variability appears to be the result of sensitivity to rainfall and possibly due to local recharge from fractures in the underlying bedrock.

Water table contours and groundwater flow directions are shown in Figure 3. Groundwater elevation data are summarized in Tables 4 and 4a. Refer to Appendix A for the Groundwater Monitoring Well Field Sampling Forms.

### **IV Groundwater Quality**

No TPH-g, TPH-d, or TPH-bo were reported at detection limits of 50 µg/L, 50 µg/L, and ND<100 µg/L, respectively. MBTEX continued to be reported as not detectable at or above the laboratory reporting limits of 5.0 µg/L, 0.5 µg/L, 0.5 µg/L, 0.5 µg/L and 5.0 µg/L respectively.

A summary of groundwater sample analytical data is presented in Table 3 and 5. Laboratory results and chain of custody documentation are included in Appendix B.

## **V Conclusions and Recommendations**

For the third quarter in a row, no TPH-g, BTEX, MTBE, or other fuel oxygenates were detected in any of the wells onsite during this groundwater monitoring event. The data from this and the previous monitoring events indicate that no hydrocarbon impact remains at the site. It appears that following the removal of the UST, natural attenuation mechanisms such as biodegradation and dispersion have reduced the contaminant concentrations to below detection limits. For this reason, AEI believes case closure is appropriate for the site at this time.

## **VI Case Closure Summary**

At the time of the removal of the 1,000 diesel and gasoline USTs from the site (April 21, 2005) significant soil contamination was observed in the excavation. Despite the contamination observed during removal, the Alameda County Environmental Health Services (ACEHS) inspector overseeing the UST removal did not allow over excavation to remove observed impacted soil. AEI was instructed to backfill the excavation without removing the obviously impacted soil. This was contrary AEI standard operation guidelines and contrary to established Bay Area regional Water Quality Control Board (RWQCB) guidelines for immediate source removal.

### Initial Hydrocarbon Impact to Soil and Groundwater

Subsequent analysis of the four soil samples collected from beneath the USTs reported TPH-g and TPH-d at concentrations up to 1,400 mg/kg and 10,000 mg/kg, respectively. No MTBE, benzene, toluene, and ethylbenzene were reported in the samples. Total xylenes were reported at concentrations ranging from ND<0.05 mg/kg to 8.4 mg/kg.

On May 18, 2008, AEI advanced eight (8) soil around the former UST tank hold. No indication of impacted soil were observed except for a dark grayish green sand at a depth of 10 feet bgs in soil boring. Analysis samples of this sand and samples from other soil borings reported no TPH-g, TPH-d, TPH-mo or MBTEX above respective standard detection limits.

Analysis of groundwater samples collected from the soil borings reported no detectable concentrations of TPH-g except in soil boring SB-2 (Table 2) located at the east end of the former tank hold. TPH-d was reported in groundwater from soil borings SB-2 at a concentration of 23,000 µg/L. TPH-d was reported as ND<50 (SB-7) in soil boring SB-7. TPH-d was reported in the remaining soil borings at concentrations ranging from 56 µg/L (SB-4) to 670 µg/L (SB-5) µg/L. Total petroleum Hydrocarbons as Motor Oil (TPH-mo) was reported at concentrations ranging from ND<250 µg/L (SB-3, SB-4) to 1,400 µg/L (SB-1, SB-5). No MBTEX was



reported in the groundwater above reporting limits except for SB-2 where toluene and total xylenes were reported at concentrations of 11 µg/L and 27 µg/L, respectively. Liquid non-aqueous phase liquid (LNAPL) or free product was reported in the water sample from SB-2.

#### Current Hydrocarbon Impact to Soil and Groundwater In Monitoring Wells

Four (4) monitoring wells were installed on October 12, 2007. No TPH-g or MBTEX were reported in soil samples from any of the wells. No diesel was reported from any of the wells located outside of the former tank hold. Diesel was reported at concentrations of 4.0 µg/L (8.5 feet bgs) and 5.1 µg/L (10 feet bgs) from soil samples from well IN-1 located in the center of the former tank hold where diesel had been previously reported in the bottom of the UST excavation at a concentration of 10,000 mg/kg. This represents a reduction in soil contamination by three orders of magnitude by natural attenuation following the removal of the USTs.

Analysis of groundwater from the first groundwater monitoring event (10/18/2007) reported no TPH-g or MBTEX in any of the wells. TPH-d (C10 to C23) and middle and heavy residual hydrocarbons quantified as Total Petroleum Hydrocarbons as bunker oil (TPH-mo C10+) at concentrations of 56 µg/L and 140 µg/L. Total Petroleum Hydrocarbon as motor oil (C10 to C23) was reported as ND<250 µg/L. The difference between the TPH-d and TPH-bo (86 µg/L) suggests a concentration in the range of 100 µg/L. This represents a reduction in groundwater contamination by 1 to 10 orders of magnitude by natural attenuation following the removal of the USTs.

Groundwater analysis from the three (3) subsequent groundwater monitoring events found no hydrocarbons at or above standard reporting limits.

#### Summary

AEI believes that the site meets the strictest RWQCB ESLs, residential land use with groundwater having potential use as drinking water. The only area (the tank pit) where significant soil contamination has been identified, has been re-sampled (Well IN-1) with minimal hydrocarbons identified (5.1 mg/kg TPH-d). The soil borings with the highest concentrations of hydrocarbons in the groundwater have been twinned with wells that report no detectable hydrocarbons except in well MW-1 where reported concentrations of gasoline, middle distillates and residual fuels have been consistently below 100 µg/L. A copy of the RWQCB Site Closure summary is attached as Appendix C.

### **VII Report Limitations and Signatures**

This report presents a summary of work completed by AEI Consultants, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations,

and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field, which existed at the time and location of the work.

Please contact the undersigned for questions regarding the findings outlined in this report.

Sincerely,

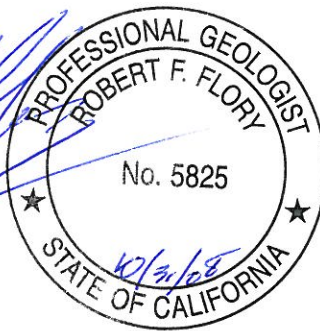
**AEI Consultants**



Russell Bartlett  
Staff Geologist



Robert F. Flory, P.G.  
Project Manager



### **Figures**

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Gradients – 8/20/08
Figure 4	Groundwater Analytical data – 8/20/08

### **Tables**

Table 1	Well Construction Details
Table 2/2a	Historical Groundwater Elevation Data
Table 3	Historical Groundwater Data

### **Appendix A**

Groundwater Monitoring Well Field Sampling Forms

### **Appendix B**

Laboratory Analyses with Chain of Custody Documentation

### **Previous Documentation**

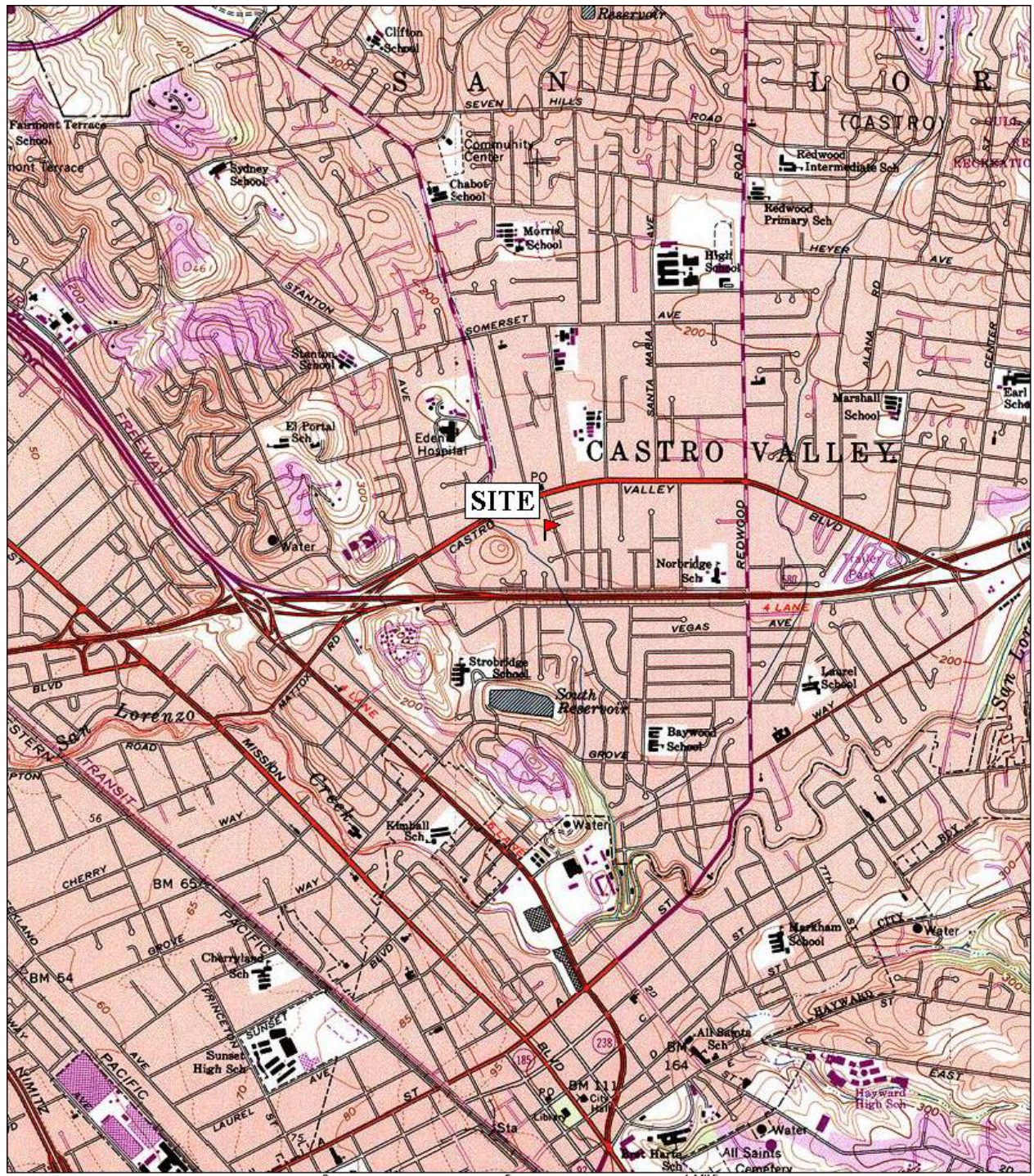
1. *Geotechnical Exploration and Engineering Study, Proposed Baker Road Apartments*, December 3, 1986, prepared by JMK Environmental Solutions, Inc.
2. *Underground Storage Tank removal Final Report*, May 19, 2004, prepared by AEI Consultants
3. *Workplan for Soil and Groundwater Investigation and Interim Source Removal*, September 20, 2007, prepared by AEI Consultants
4. *Well Installation Report*, November 29, 2007, prepared by AEI Consultants
5. *Groundwater Monitoring Report, 1<sup>st</sup> Quarter 2008*, February 29, 2008, prepared by AEI Consultants

**Distribution:**

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Cleet Carlton, RWQCB, 1515 Clay St, Suite 1400, Oakland, CA 94612	Hard Copy
Scot Haggerty, 1221 Oak Street, Suite 536, Oakland, CA 94612	Hard Copy
File	

## **FIGURES**



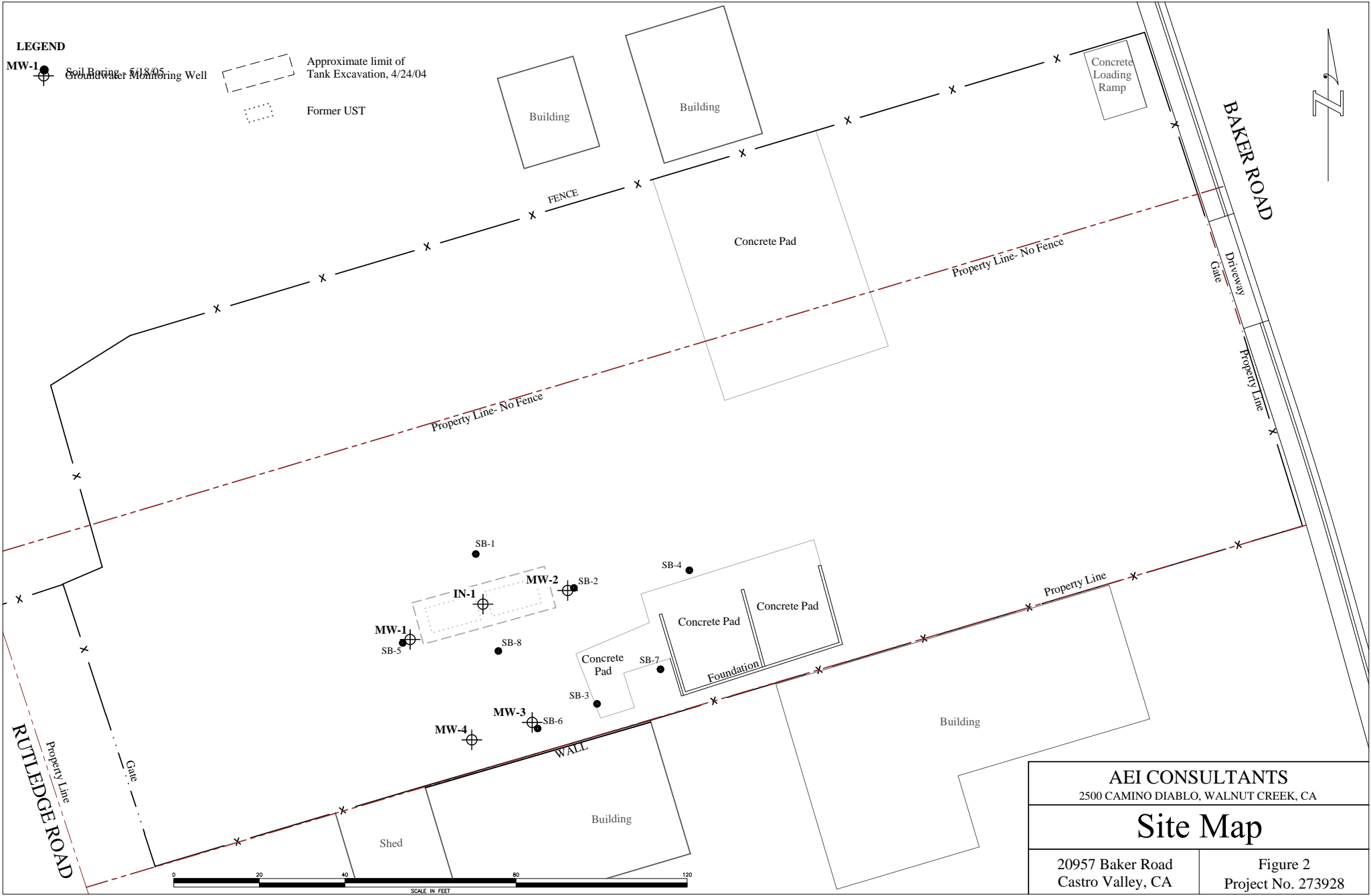


TN MN  
15°

Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

<b>AEI CONSULTANTS</b>	
<b>SITE LOCATION MAP</b>	
20957 BAKER ROAD CASTRO VALLEY, CALIFORNIA	<b>FIGURE 1</b> PROJECT NO. 273928





<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, WALNUT CREEK, CA	
<h1>Site Map</h1>	
20957 Baker Road Castro Valley, CA	Figure 2 Project No. 273928

**LEGEND**

SB-1 ● Soil Boring - 5/18/05

MW-1 ⊕ Monitoring Well - 10/12/07

◆ Tank Excavation Sample, 4/24/04

T1W-EB8'  
TPH-g 160  
TPH-d 1,400  
MBTEX ND

Tank Excavation Sample, 4/24/04

All ND

Preliminary Site Investigation, 5/18/05

IN-1-10  
TPH-g <1.0  
TPH-d 5.1  
TPH-mo <5.0  
MBTEX <0.5/<0.005

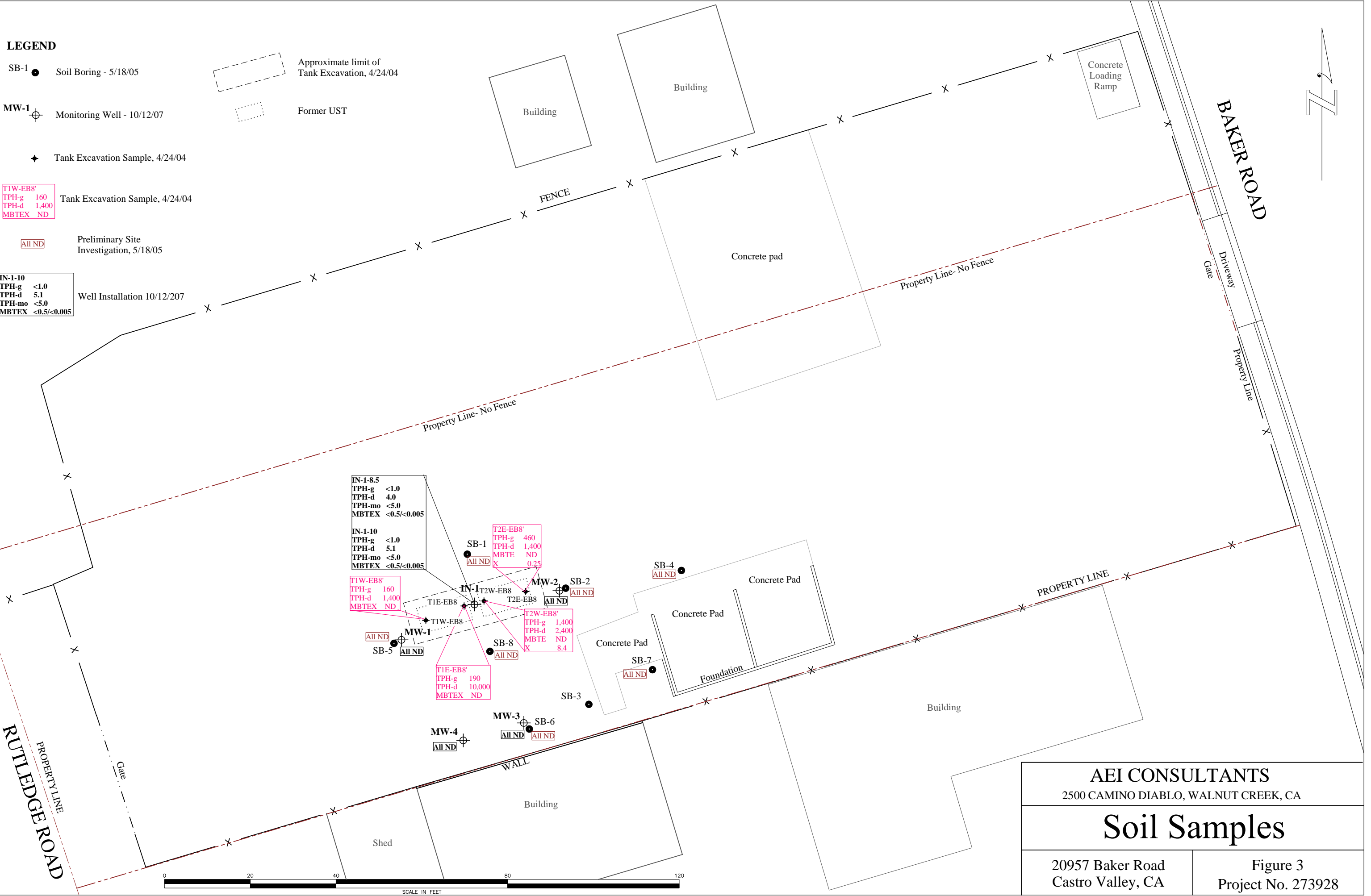
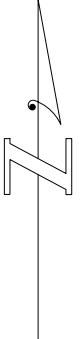
Well Installation 10/12/207

Approximate limit of Tank Excavation, 4/24/04

Former UST

RUTLEDGE ROAD  
PROPERTY LINE

BAKER ROAD



IN-1-8.5  
TPH-g <1.0  
TPH-d 4.0  
TPH-mo <5.0  
MBTEX <0.5/<0.005

IN-1-10  
TPH-g <1.0  
TPH-d 5.1  
TPH-mo <5.0  
MBTEX <0.5/<0.005

T1W-EB8'  
TPH-g 160  
TPH-d 1,400  
MBTEX ND


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TPH-d 1,400  
MBTE ND  
X 0.25

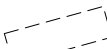

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TPH-d 2,400  
MBTE ND  
X 8.4

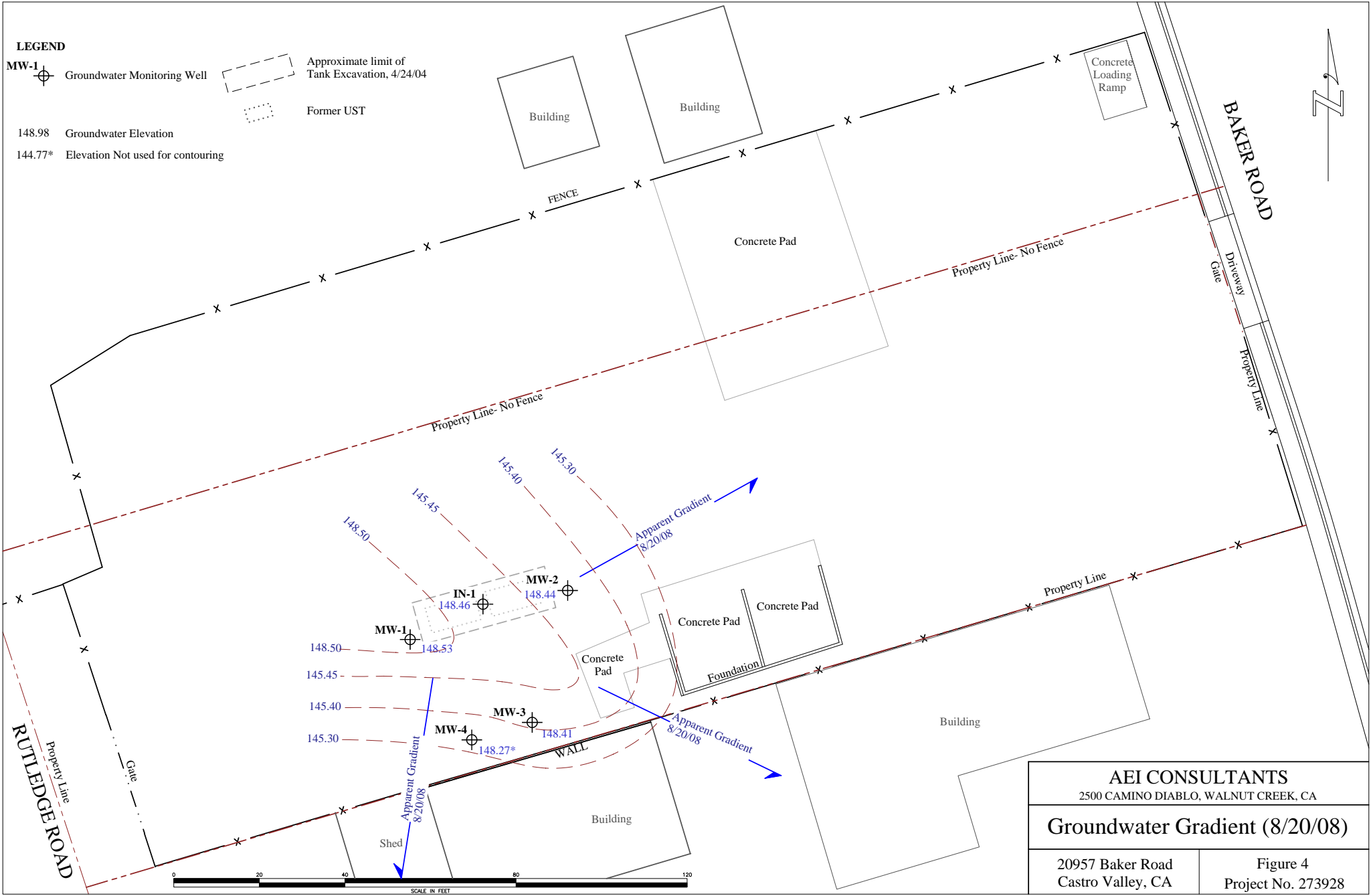
T1E-EB8'  
TPH-g 190  
TPH-d 10,000  
MBTEX ND

<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, WALNUT CREEK, CA	
<h1 style="margin: 0;">Soil Samples</h1>	
20957 Baker Road Castro Valley, CA	Figure 3 Project No. 273928




- LEGEND**
- MW-1  Groundwater Monitoring Well
  - 148.98 Groundwater Elevation
  - 144.77\* Elevation Not used for contouring

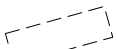
-  Approximate limit of Tank Excavation, 4/24/04
-  Former UST




<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, WALNUT CREEK, CA	
<b>Groundwater Gradient (8/20/08)</b>	
20957 Baker Road Castro Valley, CA	Figure 4 Project No. 273928

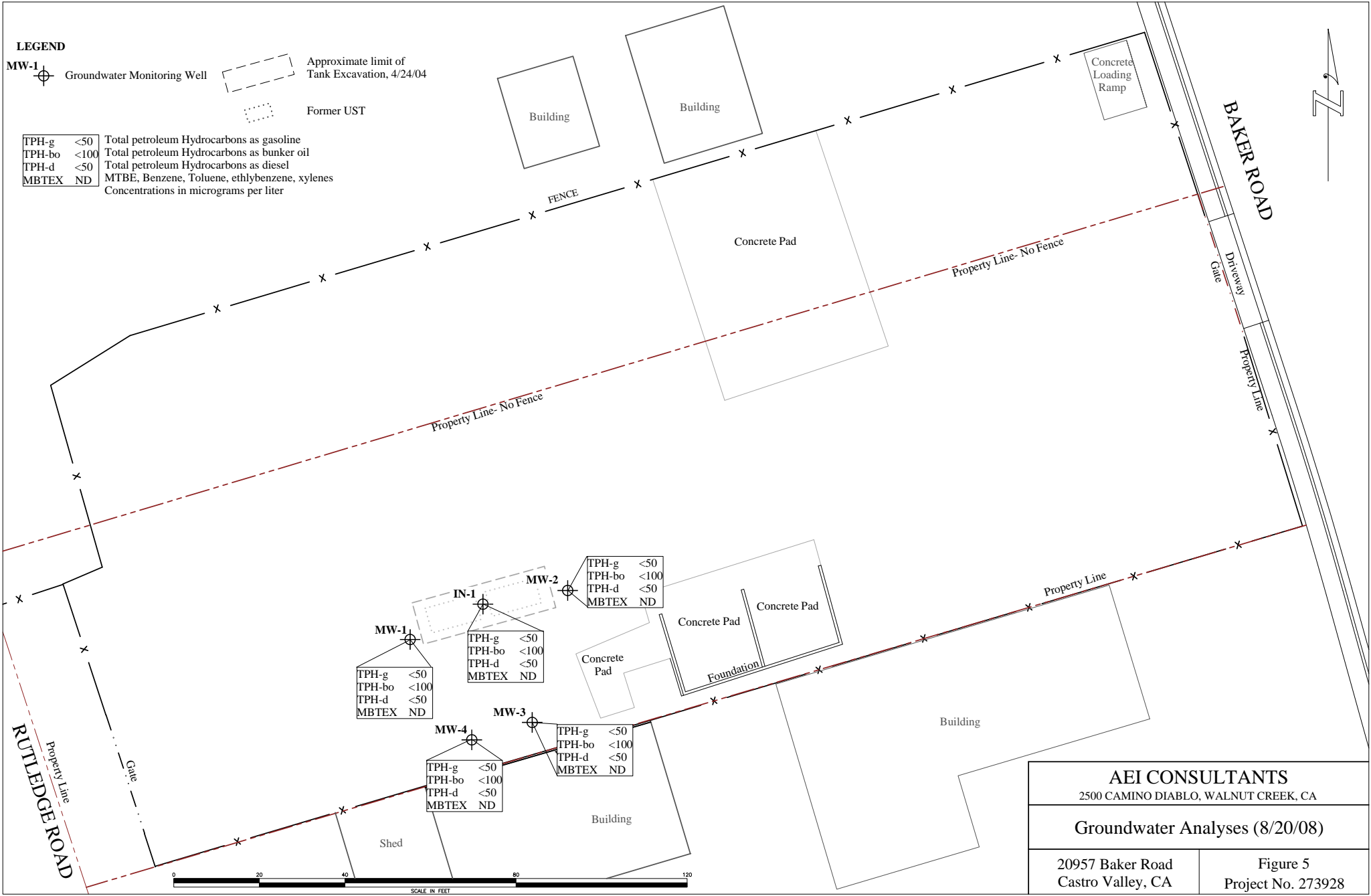
**LEGEND**

MW-1  Groundwater Monitoring Well

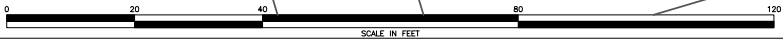
 Approximate limit of Tank Excavation, 4/24/04

 Former UST

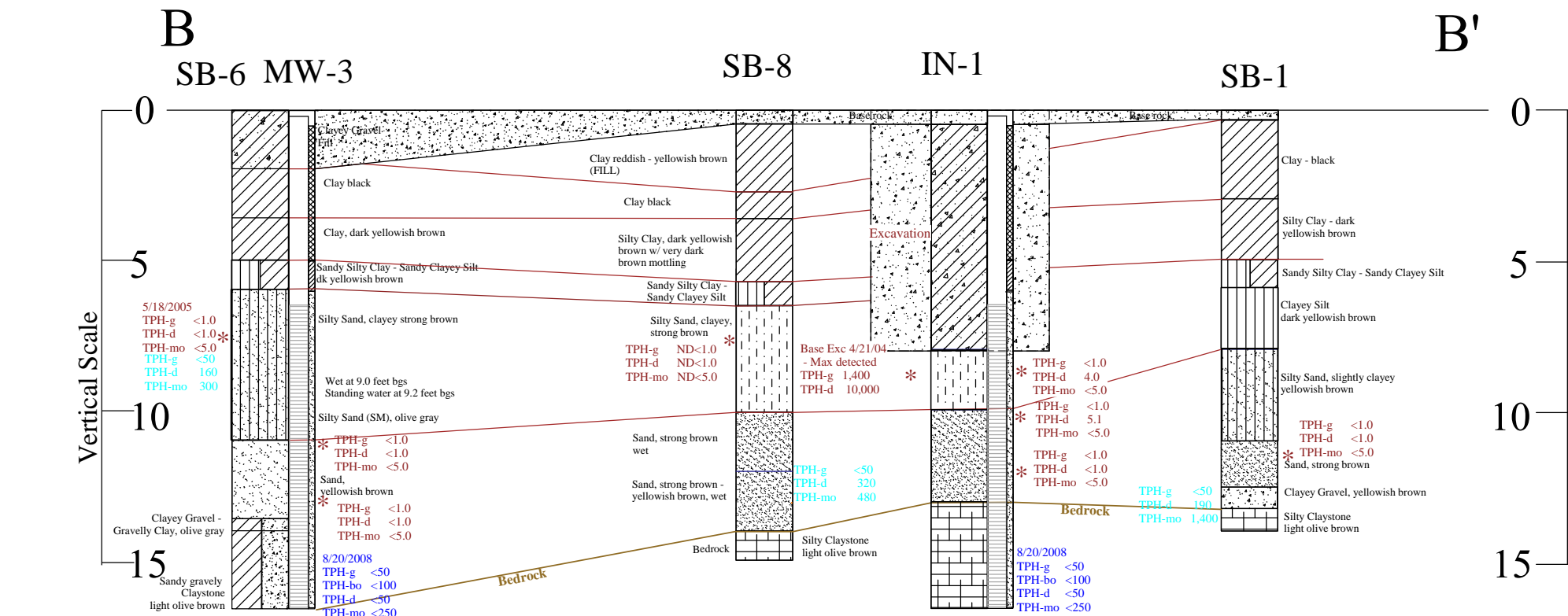
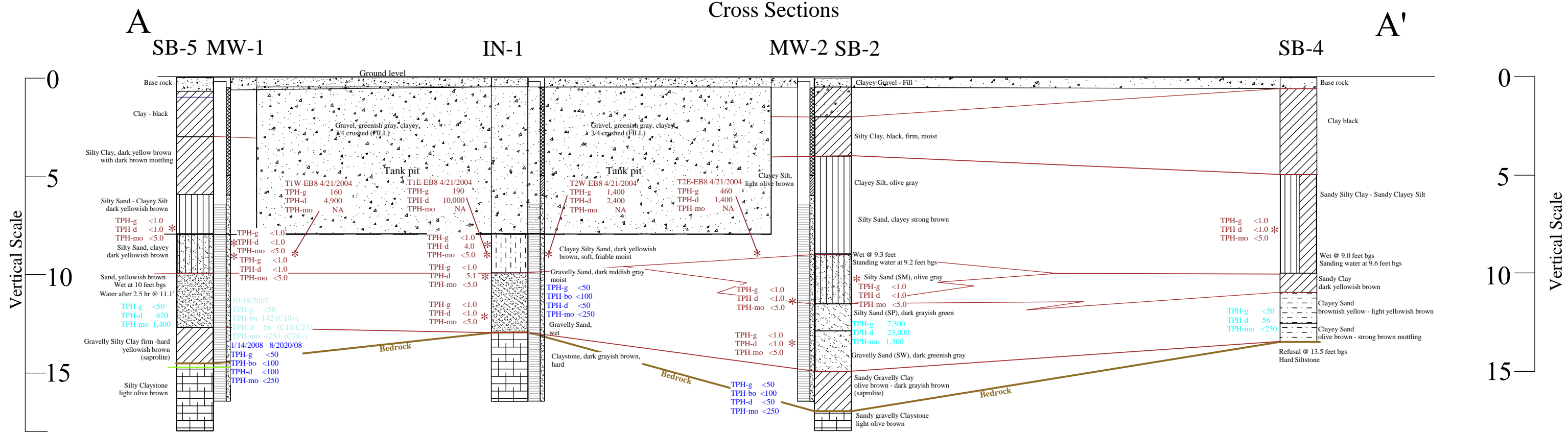
TPH-g <50 Total petroleum Hydrocarbons as gasoline  
 TPH-bo <100 Total petroleum Hydrocarbons as bunker oil  
 TPH-d <50 Total petroleum Hydrocarbons as diesel  
 MBTEX ND MTBE, Benzene, Toluene, ethylbenzene, xylenes  
 Concentrations in micrograms per liter



<b>AEI CONSULTANTS</b>	
2500 CAMINO DIABLO, WALNUT CREEK, CA	
<b>Groundwater Analyses (8/20/08)</b>	
20957 Baker Road Castro Valley, CA	Figure 5 Project No. 273928



# Cross Sections



### KEY

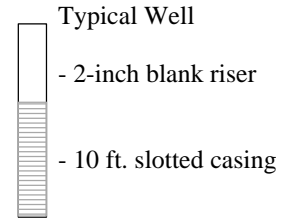
- Clay
- Sandy Clay
- Silt
- Silty Sand
- Clayey Sand
- Sand
- Gravel

TPH-g ND<1.0 Soil analytical mg/kg  
 TPH-d 4.0 Borings 5/8/2005  
 TPH-mo ND<5.0 Wells 10/12/2007

TPH-g <50 Monitoring Well  
 TPH-bo <100 Groundwater analyticals  
 TPH-d <50 8/20/2008 in ug/L  
 TPH-mo <250

TPH-g <50 Soil Boring  
 TPH-bo <100 Groundwater analyticals  
 TPH-d <50 5/18/05 in ug/L  
 TPH-mo <250

Horizontal Scale  
 Approximate  
 1-inch = 15 feet



**AEI CONSULTANTS**  
 2500 CAMINO DIABLO, WALNUT CREEK, CA

## Cross Sections A-A' and B - B'

Piazza  
 20957 Baker Road  
 Castro Valley, California

FIGURE 6  
 Project No. 273928

Drafted 12/8/05 by RFF  
 Rev 8/28/08

## **TABLES**

**Table 1: Well Construction Details****Piazza, 20957 Baker Road, Castro Valley, CA**

<b>Well ID</b>	<b>Date Installed</b> (feet)	<b>Top of casing</b> (feet)	<b>Top of Well Box</b> (feet)	<b>Depth To Water 08/20/08</b> (feet)	<b>Casing Material</b>	<b>Boring Total Depth</b> (feet)	<b>Well Total Depth</b> (feet)	<b>Borehole Diameter</b> (inches)	<b>Casing Diameter</b> (inches)	<b>Screened Interval</b> (feet)	<b>Slot Size</b> (inches)	<b>Filter Pack Interval</b> (feet)	<b>Filter Pack Sand</b> (feet)	<b>Bentonite Interval</b> (feet)	<b>Grout Interval</b> (feet)
IN-1	10/12/07	160.12	159.85	11.39	PVC	16.5	16.5	8 1/4	2.0	6.5-16.5	0.020	6.0-16.5	2/12	5.0-5.5	.05-5.0
MW-1	10/12/07	159.84	159.62	11.09	PVC	16.5	16.5	8 1/4	2.0	6.5-16.5	0.020	6.0-16.5	2/12	5.0-6.5	.05-5.0
MW-2	10/12/07	160.30	160.00	11.56	PVC	16.5	16.5	8 1/4	2.0	6.5-16.5	0.020	6.0-16.5	2/12	5.0-6.5	.05-5.0
MW-3	10/12/07	160.04	159.79	11.38	PVC	16.5	16.5	8 1/4	2.0	6.5-16.5	0.020	6.0-16.5	2/12	5.0-6.5	.05-5.0
MW-4	10/12/07	159.95	159.69	11.42	PVC	16.5	16.5	8 1/4	2.0	6.5-16.5	0.020	6.0-16.5	2/12	5.0-6.5	.05-5.0

**Table 2 Soil Analytical Data  
Piazza, 20957 Baker Road, Castro Valley, CA**

Sample ID	TPH-g	TPH-d	TPH-mo	MTBE	Benzene	Toluene	Ethyl benzene	Xylenes
	mg/kg							
	8015 C			8021 B				
<b>Tank Removal - 4/21/2004</b>								
T1W-EB8'	<b>160</b>	<b>4,900</b>	----	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05
T1E-EB8'	<b>190</b>	<b>10,000</b>	----	ND<1.7	ND<0.17	ND<0.17	ND<0.17	<b>8.4</b>
T2W-EB8'	<b>1,400</b>	<b>2,400</b>	----	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0
T2E-EB8'	<b>460</b>	<b>1,400</b>	----	ND<0.50	ND<0.05	ND<0.05	ND<0.05	<b>0.25</b>
<b>Phase II Site Investigation - 5/18/2005</b>								
SB1-11.5	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB2-10	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB3-7.5	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB4-7.5	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB5-7.5	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB6-7.5	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB7-8	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB8-7.5	ND<1.0	ND<1.0	ND<5.0	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
<b>Well Installation - 10/12/2007</b>								
IN-1-8.5	<1.0	<b>4.0</b>	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
IN-1-10	<1.0	<b>5.1</b>	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
IN-1-12	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-1-8.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-1-9	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-2-11.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-2-13.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-3-11	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-3-13	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-4-11	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-4-12	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
MW-4-16	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
ESL <9 ft DW	83	83	370	0.25	0.044	0.29	2.3	2.3
ESL <9 ft ND'	83	83	2500	0.25	0.044	0.29	2.3	2.3

Notes:

**Values in Bold above reporting limit**

**Values in Bold RED are above ESL**

ESL <9 ft DW = Shallow soil groundwater having potential for drinking w

ESL <9 ft NDW = Shallow soil groundwater with no potential for drinking

Lead in excavation samples 6.1 mg/kg to 18 mg/kg, stockpile 22 mg/kg to 24 mg/kg

**Table 3 Groundwater Analytical Data - Soil Borings and Paired Monitoring Wells  
Piazza, 20957 Baker Road, Castro Valley, CA**

Sample ID	Date	Depth to Water feet	TPH-g C6-C12	TPH-d C10-C23	TPH-mo C18+	TPH-bo C10+	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			µg/L		µg/L		µg/L	µg/L	µg/L	µg/L	µg/L
EPA Method 8015						EPA Method 8021B					
SB-1 W	5/18/2005	8.75	ND<50	190	1,400	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
<b>IN-1</b>	<b>10/18/07</b>	<b>10.89</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
SB-2 W	5/18/2005	9.20	7,300	23,000	1,300	----	ND<50	ND<5.0	11	ND<5.0	<b>27</b>
<b>MW-2</b>	<b>10/18/07</b>	<b>11.74</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
SB3-W	5/18/2005	8.56	ND<50	62	ND<250	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
<b>MW-3</b>	<b>10/18/07</b>	<b>11.10</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
SB4-W	5/18/2005	9.60	ND<50	56	ND<250	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB5-W	5/18/2005	11.60	ND<50	670	1,400	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
<b>MW-1</b>	<b>10/18/07</b>	<b>11.64</b>	<b>ND&lt;50</b>	<b>56</b>	<b>ND&lt;250 (86)</b>	<b>140</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
SB6-W	5/18/2005	8.62	ND<50	160	300	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
<b>MW-3</b>	<b>10/18/07</b>	<b>11.10</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	<b>ND&lt;250</b>	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
SB7-W	5/18/2005	8.56	ND<50	ND<50	ND<250	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SB8-W	5/18/2005	8.70	ND<50	320	480	----	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
RWQCB ESLs**			100	100	100	----	5.0	1.0	40	30	20

Notes

Soil boring data from 2005 is paired with twin 2007 groundwater monitoring well data for comparison purposes.

**BOLD** = Current groundwater data

1 = oil range compounds are significant

TPH-g = total petroleum hydrocarbons as gasoline

2 = diesel range compounds are significant, no recognizable pattern

TPH-d = total petroleum hydrocarbons as diesel

3 = no recognizable pattern

TPH-mo = total petroleum hydrocarbons as motor oil

4 = lighter than water immiscible sheen/product is present

MTBE = methyl tert-butyl ether

5 = gasoline range compounds are significant

µg/L = micrograms per liter (parts per billion)

6 = value in parenthesis is approximate "residual fuel", C10+ value minus TPH-d value

ft amsl = feet above mean sea level

ND = Not reported at or above the indicated method detection limit

\*\* = RWQCB ESLs November 2007, TABLE F-1a. Groundwater Screening levels, Groundwater is a current or potential drinking water resource

**Table 4 Groundwater Elevation Data  
Piazza, 20957 Baker Road, Castro Valley, CA**

Well ID	Date	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Elevation Change (ft)	
IN-1	10/15/07	159.85	11.00	148.85	----	
	10/18/07	159.85	10.89	148.96	0.11	
	10/22/2007*	159.85	10.93	148.92	-0.04	
	11/06/07	159.85	11.20	148.65	-0.27	
	01/14/08	159.85	8.39	151.46	2.81	
	04/16/08	159.85	10.21	149.64	-1.82	
	<b>08/20/08</b>	<b>159.85</b>	<b>11.39</b>	<b>148.46</b>	<b>-1.18</b>	
MW-1	10/15/07	159.62	14.30	145.32	----	
	10/18/07	159.62	11.64	147.98	2.66	
	10/22/07	159.62	10.86	148.76	0.78	
	11/06/07	159.62	10.95	148.67	-0.09	
	01/14/08	159.62	8.81	150.81	2.14	
	04/16/08	159.62	9.98	149.64	-1.17	
	<b>08/20/08</b>	<b>159.62</b>	<b>11.09</b>	<b>148.53</b>	<b>-1.11</b>	
MW-2	10/15/07	160.00	13.28	146.72	----	
	10/18/07	160.00	11.74	148.26	1.54	
	10/22/07	160.00	11.32	148.68	0.42	
	11/06/07	160.00	11.35	148.65	-0.03	
	01/14/08	160.00	8.49	151.51	2.86	
	04/16/08	160.00	10.38	149.62	-1.89	
	<b>08/20/08</b>	<b>160.00</b>	<b>11.56</b>	<b>148.44</b>	<b>-1.18</b>	
MW-3	10/15/07	159.79	11.01	148.78	----	
	10/18/07	159.79	11.10	148.69	-0.09	
	10/22/07	159.79	10.95	148.84	0.15	
	11/06/07	159.79	11.20	148.59	-0.25	
	01/14/08	159.79	8.41	151.38	2.79	
	04/16/08	159.79	10.19	149.60	-1.78	
	<b>08/20/08</b>	<b>159.79</b>	<b>11.38</b>	<b>148.41</b>	<b>-1.19</b>	
MW-4	10/15/07	159.69	14.57	145.12	----	
	10/18/07	159.69	14.92	144.77	-0.35	
	10/22/07	159.69	14.65	145.04	0.27	
	10/22/07	Well loaded with fresh water- surged for 15 minutes- water level dropping slowly @ 4.0 feet bgs				
	11/06/07	159.69	8.00	151.69	6.65	
	01/14/08	159.69	8.77	150.92	-0.77	
	04/16/08	159.69	9.94	149.75	-1.17	
	<b>08/20/08</b>	<b>159.69</b>	<b>11.42</b>	<b>148.27</b>	<b>-1.48</b>	

Depth to water measured from the top of well casing  
ft amsl = feet above mean sea level



**Table 4a**                    **Groundwater Elevation and Gradient**  
**Piazza, 20957 Baker Road, Castro Valley, CA**

<b>Event</b>	<b>Date</b>	<b>Average Water Table Elevation (ft amsl)</b>	<b>Water Table Elevation Change (ft)</b>	<b>Hydraulic Gradient Flow Direction (ft/ft)</b>
Develop wells	10/15/07	147.42	----	variable
1	10/18/07	148.47	1.06	variable
Develop well MW- 4	10/22/07	148.80	0.33	variable
----	11/06/07	148.64	-0.16	0.002/SSE
2	01/14/08	151.22	2.58	0.010-0.029/SW
3	04/16/08	149.65	-1.57	0.004/SSE
<b>4</b>	<b>08/20/08</b>	<b>148.42</b>	<b>-1.23</b>	variable

Notes

**Table 5 Groundwater Analytical Data  
Piazza, 20957 Baker Road, Castro Valley, CA**

Sample ID	Date	Depth to Water feet	TPH-g C6-C12	TPH-d C10-C23	TPH-mo C18+	TPH-bo C10+	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
			µg/L	µg/L	µg/L		µg/L	µg/L	µg/L	µg/L	µg/L
EPA Method 8015						EPA Method 8021B					
IN-1	10/18/07	10.89	ND<50	ND<50	ND<250	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/14/2008	8.39	ND<50	ND<50	----	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/16/08	10.21	ND<50	ND<50	----	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	<b>08/20/08</b>	<b>11.39</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	----	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-1	10/18/07	11.64	ND<50	<b>56</b>	<b>ND&lt;250 (86)</b>	140	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/14/2008	8.81	ND<50	ND<50	----	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/16/08	8.98	ND<50	ND<50	----	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	<b>08/20/08</b>	<b>11.09</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	----	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-2	10/18/07	11.74	ND<50	ND<50	ND<250	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/14/2008	8.49	ND<50	ND<50	----	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/16/08	10.38	ND<50	ND<50	----	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	<b>08/20/08</b>	<b>11.56</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	----	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-3	10/18/07	11.10	ND<50	ND<50	ND<250	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/14/2008	8.41	ND<50	ND<50	----	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/16/08	10.19	ND<50	ND<50	----	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	<b>08/20/08</b>	<b>11.38</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	----	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-4	10/18/07	14.82	ND<50	ND<50	ND<250	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/14/2008	8.77	ND<50	ND<50	----	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/16/08	9.94	ND<50	ND<50	----	ND<100	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	<b>08/20/08</b>	<b>11.42</b>	<b>ND&lt;50</b>	<b>ND&lt;50</b>	----	<b>ND&lt;100</b>	<b>ND&lt;5.0</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
ESLs Residential			100	100	100	----	5.0	1.0	40	30	20
ESLs Commercial Industrial			210	210	210	210	1800	46	130	43	100

Notes

**BOLD** = Current groundwater data

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-mo = total petroleum hydrocarbons as motor oil

TPH-bo = total petroleum hydrocarbons as bunker oil

MTBE = methyl tert-butyl ether

**Bold orange concentration above detection limit**

µg/L = micrograms per liter (parts per billion)

ft amsl = feet above mean sea level

ND = Not reported at or above the indicated method detection limit

\*\* = RWQCB ESLs November 2007, TABLE F-1a. Groundwater Screening levels,  
Groundwater is a current or potential drinking water resource

**Table 6**            **Soil Vapor Data - RKI Eagle Gas Detector**  
**Piazza, 20957 Baker Road, Castro Valley, CA**

Sample ID	Date	Vacuum	Hydrocarbons	Methane	Oxygen	Carbon Dioxide
			mg/kg	Percent (%)		
MW-1	10/18/2007	11.64	0.0	0.0	20.8	0.4
	7/12/2008	----	0.0	0.0	9.8	8.8
MW-2	10/18/2007	11.74	0.0	0.0	15.9	2.9
	7/12/2008	----	0.0	0.0	10.5	7.7
MW-3	10/18/2007	11.1	0.0	0.0	7.9	7.3
	7/12/2008	----	0.0	0.0	10.5	7.7
MW-4	10/18/2007	14.92	0.0	0.0	19.0	1.3
	7/12/2008	----	0.0	0.0	11.3	6.0
IN-1	10/18/2007	10.89	0.0	0.0	12.4	5.0
	7/12/2008	----	0.0	0.0	9.2	9.4

**APPENDIX A**

**Groundwater Monitoring Well  
Field Sampling Forms**

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: IN-1**

Project Name:	Nat Piazza	Date of Sampling:	8/20/2008
Job Number:	273928	Name of Sampler:	A Nieto
Project Address:	20957 Baker Road, Castro valley, California		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	159.85		
Depth of Well	16.50		
Depth to Water (from top of casing)	11.39		
Water Elevation (feet above msl)	148.46		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 - 40 ml VOA, 1 1-liter Amber,			
Time	Vol Removed (liter)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
10:20	1.0	21.67	6.58	559	1.25	115.5	Clear
10:22	2.0	21.99	6.22	496	0.76	112.1	Clear
10:24	3.0	22.36	6.10	482	0.73	110.3	Clear
10:26	4.0	22.41	9.07	485	0.76	108.0	Clear

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Purge water clear with no odor.
Tubing line at 13 feet, pump head on 300 rpm drive

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-1**

Project Name:	Nat Piazza	Date of Sampling:	8/20/2008
Job Number:	273928	Name of Sampler:	A Nieto
Project Address:	20957 Baker Road, Castro valley, California		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	159.62		
Depth of Well	16.50		
Depth to Water (from top of casing)	11.09		
Water Elevation (feet above msl)	148.53		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 - 40 ml VOA, 1 1-liter Amber,			
Time	Vol Removed (liter)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
10:38	1.0	21.68	6.72	1047	1.00	133.7	Clear
10:40	2.0	22.09	6.63	999	1.37	104.0	Clear
10:42	3.0	22.31	6.62	993	1.16	92.7	Clear
10:44	4.0	22.26	6.62	996	1.16	87.0	Clear

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Purge water clear with no odor
Tubing line at 13 feet, pump head on 300 rpm drive

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-2**

Project Name:	Nat Piazza	Date of Sampling:	8/20/2008
Job Number:	273928	Name of Sampler:	A Nieto
Project Address:	20957 Baker Road, Castro valley, California		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	160.00		
Depth of Well	16.50		
Depth to Water (from top of casing)	11.56		
Water Elevation (feet above msl)	148.44		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 - 40 ml VOA, 1 1-liter Amber			
Time	Vol Removed (liter)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
	1.0	21.37	6.93	818	0.89	113.3	Clear
	2.0	21.56	6.88	746	0.59	99.1	Clear
	3.0	21.79	6.73	696	0.56	94.8	Clear
	4.0	21.9	6.70	699	0.43	89.5	Clear

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Purge water clear with no odor
Tubing line at 13 feet, pump head on 300 rpm drive

**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-3**

Project Name:	Nat Piazza	Date of Sampling:	8/20/2008
Job Number:	273928	Name of Sampler:	A Nieto
Project Address:	20957 Baker Road, Castro valley, California		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	159.79		
Depth of Well	16.50		
Depth to Water (from top of casing)	11.38		
Water Elevation (feet above msl)	148.41		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	4.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 - 40 ml VOA, 1 1-liter Amber,			
Time	Vol Removed (liter)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
11:09	1.0	20.21	6.37	508	2.15	56.3	Clear
	2.0	20.23	6.31	504	0.67	50.0	Clear
	3.0	20.59	6.30	504	0.69	44.8	Clear
	4.0	20.64	6.30	503	0.84	42.8	Clear

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Purge water clear with no odor
Tubing line at 13 feet, pump head on 300 rpm drive



**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-4**

Project Name:	Nat Piazza	Date of Sampling:	8/20/2008
Job Number:	273928	Name of Sampler:	A Nieto
Project Address:	20957 Baker Road, Castro valley, California		

**MONITORING WELL DATA**

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	159.69		
Depth of Well	16.50		
Depth to Water (from top of casing)	11.42		
Water Elevation (feet above msl)	148.27		
Well Volumes Purged	Micropurged		
Actual Volume Purged (liters)	3.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				3 - 40 ml VOA, 1 1-liter Amber,			
Time	Vol Removed (liter)	Temperature (deg C)	pH	Conductivity (μS/cm)	DO (mg/L)	ORP (meV)	Comments
10:54	1.0	20.35	20.35	1017	1.19	98.7	Clear
10:56	2.0	20.46	20.46	986	1.09	82.7	light brown
10:57	3.0	20.61	6.83	972	1.18	7.4	light brown

**COMMENTS (i.e., sample odor, well recharge time & percent, etc.)**

Tubing line at 16 feet, pump head on 300 rpm drive
Purge water clear with no odor
Water turned brown at 2 liters, well going dry

## **APPENDIX B**

### **Laboratory Analytical Reports With Chain of Custody Documentation**



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants  2500 Camino Diablo, Ste. #200  Walnut Creek, CA 94597	Client Project ID: #273928; Piazza, 20957 Baker Road, Castro Valley,	Date Sampled: 08/20/08
		Date Received: 08/20/08
	Client Contact: Robert Flory	Date Reported: 08/25/08
	Client P.O.:	Date Completed: 08/25/08

**WorkOrder: 0808594**

August 25, 2008

Dear Robert:

Enclosed within are:

- 1) The results of the **5** analyzed samples from your project: **#273928; Piazza, 20957 Baker Road**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 0808594**

**ClientCode: AEL**

WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

<b>Report to:</b>	Robert Flory	Email: rflory@aeiconsultants.com	<b>Bill to:</b>	Denise Mockel	<b>Requested TAT:</b>	<b>5 days</b>
	AEI Consultants	cc:		AEI Consultants	<b>Date Received:</b>	<b>08/20/2008</b>
	2500 Camino Diablo, Ste. #200	PO:		2500 Camino Diablo, Ste. #200	<b>Date Printed:</b>	<b>08/20/2008</b>
	Walnut Creek, CA 94597	ProjectNo: #273928; Piazza, 20957 Baker Road,		Walnut Creek, CA 94597		
		Castro Valley,				
	(925) 283-6000    FAX (925) 283-6121			dmockel@aeiconsultants.com		

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0808594-001	MW-1	Water	8/20/2008 10:50	<input type="checkbox"/>	A	A	B									
0808594-002	MW-2	Water	8/20/2008 10:15	<input type="checkbox"/>	A		B									
0808594-003	MW-3	Water	8/20/2008 11:20	<input type="checkbox"/>	A		B									
0808594-004	MW-4	Water	8/20/2008 11:00	<input type="checkbox"/>	A		B									
0808594-005	IN-1	Water	8/20/2008 10:30	<input type="checkbox"/>	A		B									

**Test Legend:**

1	G-MBTX_W	2	PREDF REPORT	3	TPH(DMO)_W	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Ana Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



**Sample Receipt Checklist**

Client Name: **AEI Consultants** Date and Time Received: **08/20/08 6:50:28 PM**  
Project Name: **#273928; Piazza, 20957 Baker Road, Castro Valle** Checklist completed and reviewed by: **Ana Venegas**  
WorkOrder N°: **0808594** Matrix Water Carrier: Client Drop-In

**Chain of Custody (COC) Information**

Chain of custody present? Yes  No   
Chain of custody signed when relinquished and received? Yes  No   
Chain of custody agrees with sample labels? Yes  No   
Sample IDs noted by Client on COC? Yes  No   
Date and Time of collection noted by Client on COC? Yes  No   
Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

Custody seals intact on shipping container/cooler? Yes  No  NA   
Shipping container/cooler in good condition? Yes  No   
Samples in proper containers/bottles? Yes  No   
Sample containers intact? Yes  No   
Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

All samples received within holding time? Yes  No   
Container/Temp Blank temperature Cooler Temp: 3.6°C NA   
Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted   
Sample labels checked for correct preservation? Yes  No   
TTLC Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA   
Samples Received on Ice? Yes  No   
(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted: Date contacted: Contacted by:

Comments:



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants  2500 Camino Diablo, Ste. #200  Walnut Creek, CA 94597	Client Project ID: #273928; Piazza, 20957 Baker Road, Castro Valley,	Date Sampled: 08/20/08
	Client Contact: Robert Flory	Date Received: 08/20/08
	Client P.O.:	Date Extracted: 08/22/08
		Date Analyzed 08/22/08

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0808594

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	98
002A	MW-2	W	ND	ND	ND	ND	ND	ND	1	92
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	95
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	98
005A	IN-1	W	ND	ND	ND	ND	ND	ND	1	93

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:



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AEI Consultants  2500 Camino Diablo, Ste. #200  Walnut Creek, CA 94597	Client Project ID: #273928; Piazza, 20957 Baker Road, Castro Valley,	Date Sampled: 08/20/08
	Client Contact: Robert Flory	Date Received: 08/20/08
	Client P.O.:	Date Extracted: 08/20/08
		Date Analyzed 08/22/08

### Total Extractable Petroleum Hydrocarbons\*

Extraction method SW3510C

Analytical methods SW8015C

Work Order: 0808594

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	TPH-Bunker Oil (C10-C36)	DF	% SS
001B	MW-1	W	ND	ND	ND	1	107
002B	MW-2	W	ND	ND	ND	1	108
003B	MW-3	W	ND	ND	ND	1	101
004B	MW-4	W	ND	ND	ND	1	102
005B	IN-1	W	ND	ND	ND	1	103

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	100	µg/L
	S	NA	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:





**QC SUMMARY REPORT FOR SW8021B/8015Cm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37700

WorkOrder: 0808594

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0808547-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sub>f</sub>	ND	60	93.6	88.1	6.01	88.3	86.9	1.61	70 - 130	20	70 - 130	20
MTBE	ND	10	95	101	6.62	89.7	109	19.4	70 - 130	20	70 - 130	20
Benzene	ND	10	90.1	89.6	0.485	86.6	73.4	16.5	70 - 130	20	70 - 130	20
Toluene	ND	10	87.2	86.2	1.13	85.6	80.5	6.21	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.2	92.8	1.50	89.5	96.5	7.49	70 - 130	20	70 - 130	20
Xylenes	ND	30	106	103	2.37	100	107	6.57	70 - 130	20	70 - 130	20
%SS:	95	10	95	97	2.77	95	99	3.61	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 37700 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808594-001A	08/20/08 10:50 AM	08/22/08	08/22/08 9:57 PM	0808594-002A	08/20/08 10:15 AM	08/22/08	08/22/08 2:59 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8021B/8015Cm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37726

WorkOrder: 0808594

Analyte	EPA Method SW8021B/8015Cm		Extraction SW5030B						Spiked Sample ID: 0808594-004A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	95.8	91.5	4.53	95.9	95.9	0	70 - 130	20	70 - 130	20
MTBE	ND	10	97.8	92.4	5.74	90.4	104	13.7	70 - 130	20	70 - 130	20
Benzene	ND	10	92.9	88.6	4.72	92.8	94.5	1.78	70 - 130	20	70 - 130	20
Toluene	ND	10	93.6	89	5.01	84.8	84.5	0.391	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97.4	93.3	4.39	94.4	92.9	1.55	70 - 130	20	70 - 130	20
Xylenes	ND	30	108	104	4.15	91.8	90.2	1.82	70 - 130	20	70 - 130	20
%SS:	98	10	95	93	1.83	99	97	2.75	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 37726 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808594-003A	08/20/08 11:20 AM	08/22/08	08/22/08 3:32 AM	0808594-004A	08/20/08 11:00 AM	08/22/08	08/22/08 8:43 AM
0808594-005A	08/20/08 10:30 AM	08/22/08	08/22/08 9:14 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37677

WorkOrder 0808594

EPA Method SW8015C		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	102	101	1.06	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	105	105	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 37677 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808594-001B	08/20/08 10:50 AM	08/20/08	08/22/08 5:48 PM	0808594-002B	08/20/08 10:15 AM	08/20/08	08/22/08 6:59 PM
0808594-003B	08/20/08 11:20 AM	08/20/08	08/22/08 4:27 PM	0808594-004B	08/20/08 11:00 AM	08/20/08	08/22/08 5:48 PM
0808594-005B	08/20/08 10:30 AM	08/20/08	08/22/08 6:59 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

## **APPENDIX C**

### **Case Closure Summary**

## CASE CLOSURE SUMMARY

### I. AGENCY INFORMATION

Date: 10/11/2007

Agency Name: Alameda County Environmental Health Services	Address: 1131 Harbor Bay Parkway, Ste 250
City/State/Zip: Oakland, CA 94612	Phone: 510-622-2300
Responsible Staff Person: Steven Plunkett	Title:

### II. SITE INFORMATION

Site Facility Name: <b>Nat Piazza</b>				
Site Facility Address: <b>20957 Baker Road, Castro Valley, CA</b>				
RB Case Nos.:		Local or LOP Case No.:		Priority: <b>Low</b>
URF Filing Date:		SWEEPS No.:		
Responsible Parties (include addresses and phone numbers)				
<b>Nat and Darlene Piazza, 7613 Peppertree Road, Dublin, CA 94568 925-828-1577, Fax 925-828-1538</b>				
Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
<b>1</b>	<b>1,000</b>	<b>gasoline</b>	<b>Removed</b>	<b>4/16/2004</b>
<b>2</b>	<b>1,000</b>	<b>diesel</b>	<b>Removed</b>	<b>4/16/2004</b>

### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: <b>Leaking UST</b>		
Site characterization complete? <b>Yes</b>		Date Approved by Oversight Agency: -----
Monitoring wells installed? <b>Yes</b>		Number: <b>5</b> Proper screened interval? <b>Yes</b>
Highest GW Depth Below Ground Surface: <b>14.52</b>		Lowest Depth: <b>8.39</b> Flow Direction: <b>SW to South</b>
Most Sensitive Current Use: <b>Vacant - acreage</b>		
Most Sensitive Potential Use <b>Residential</b> and Probability of Use		
Are drinking water wells affected? <b>No</b>		Aquifer Name:
Is surface water affected? <b>No</b>		Nearest surface water name: <b>San Lorenzo Creek</b>
Off-Site Beneficial Use Impacts (Addresses/Locations): <b>None</b>		
Report(s) on file? <b>Yes</b>		Where is report(s) filed? <b>Alameda County/GeoTracker</b>

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL									
Material	Amount (Include Units)		Action (Treatment or Disposal w/Destination)				Date		
Tanks	2 1,000 gallon tanks		Triple rinse Excel Environmental, removal and Disposal by Ecology Control Industries				4/162004		
Piping	unknown		Removal and disposal by Ericson				4/162004		
Free Product	none								
Soil	100 tons		Disposal under manifest - landfill				4/16/2004		
Groundwater	None removed		Biodegradation/natural attenuation				To date		
Barrels									
MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP									
POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH-g	1,400	<1.0	7,300	<50	Toluene	<1.0	<0.005	11	ND<0.5
TPH-d	10,000	5.1	1,400	<50	EthylBenz	<1.0	<0.005	<0.5	ND<0.5
TPH-mo	----	<5.0	<250	<100	xylenes	8.4	<0.005	27	ND<0.5
TPH-bo	----	<5.0	140	<100	MTBE	<10	<0.05	<0.5	ND<5.0
Benz/EthyB	<1.0	<0.005	<0.5	<0.5					
xylenes	8.4	<0.005	27	<0.5					
Comments (Depth of Remediation, etc.):									

#### IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? <b>Yes</b>		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? <b>Yes</b>		
Does corrective action protect public health for current land use? <b>Yes</b>		
Site Management Requirements: <b>NONE</b>		
Should corrective action be reviewed if land use changes: <b>NO</b>		
Monitoring Wells Decommissioned: <b>None to date</b>	Number Decommissioned: <b>0</b>	Number Retained: <b>5</b>
List Enforcement Actions Taken: <b>None</b>		
List Enforcement Actions Rescinded: <b>None</b>		

**V. TECHNICAL REPORTS, CORRESPONDENCE, ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON**

3 <sup>rd</sup> Quarter 2008 Groundwater Monitoring report and Site Closure Request, 8/29/2008	

**VI. ADDITIONAL COMMENTS, DATA, ETC.**

See body of report report.
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This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.