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December 13, 2006

GGTR Project # 8757

Mr. Jim Tracy  
878 W. Hayden Court  
Alpine, UT 84004

**SUBJECT: Groundwater Monitoring Report – September 2006**

**SITE: 1532 Peralta Street  
Oakland, CA 94607  
LEAK CASE RO000117**

Dear Mr. Tracy:

Attached please find a copy of the report for Third Quarter 2006 Groundwater Monitoring for the site located at 1532 Peralta Street, Oakland, California. Also, we attached a copy of the corresponding invoice. Please pay all the outstanding invoices and provide the cancelled checks at a later date. Once we accumulate at least \$10,000 of expenses and we receive the cancelled checks, we will prepare a reimbursement request and send it to the Cleanup Fund on your behalf.

Thank you for your cooperation. If you have any questions, please call me at (415) 512-1555.

Sincerely,  
**Golden Gate Tank Removal, Inc./  
The Environmental Division**

A handwritten signature in black ink, appearing to read "Sami Malaeb". The signature is fluid and cursive, written over a white background.

Sami Malaeb, P.E.  
Environmental Director

**Golden Gate Tank Removal, Inc.  
255 Shipley Street - San Francisco, CA 94107 - Tel.: 415.512.1555 Fax: 415.512.0964  
General Engineering Contractors License No. 616521**



## GROUNDWATER MONITORING REPORT

September 2006

Peralta Auto Care Garage  
1532 Peralta Street  
Oakland, California

ACHCSA Fuel Leak Case No. RO000177

Prepared For:

Alpine Rentals  
James Tracy  
878 Hayden Court  
Alpine, UT 84004

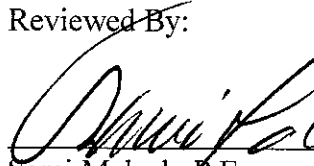
Prepared By:

Golden Gate Tank Removal, Inc.  
255 Shipley Street  
San Francisco, California 94107  
GGTR Project No. 8757

Groundwater Monitoring Date: September 25, 2006

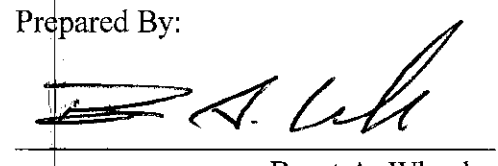
Report Submittal Date: December 13, 2006

Reviewed By:

  
Sami Malaeb, P.E.  
Environmental Director



Prepared By:

  
Brent A. Wheeler  
Project Engineer

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2. Site Plan
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1. Historical Groundwater Well Sample Results
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### ATTACHMENTS

- A Fluid-Level Monitoring Data Form  
Well Purging/Sampling Data Sheets  
EPA Online Worksheet  
Monitoring Well Survey Data Sheet
- B Laboratory Certificate of Analysis  
Chain of Custody Record  
GeoTracker AB2886 Upload Confirmation Forms

## **INTRODUCTION**

This report presents the results and findings of the September 25, 2006 quarterly groundwater monitoring and sampling activities conducted by Golden Gate Tank Removal, Inc. (GGTR) at the Peralta Auto Care Garage located at 1532 Peralta Street in Oakland, California. The Alameda County Health Care Services Agency (ACHCSA) designated the site as Fuel Leak Case No RO000117.

This monitoring event represents the third quarterly monitoring event for the six monitoring wells, MW-1 through MW-6. Figure 1 is a Site Location Map showing the location of the subject property. Figure 2 is a Site Plan depicting the approximate location of the former underground fuel storage tanks (USTs), approximate limits of former USTs over excavation, historical soil borings, and existing groundwater monitoring wells. A Groundwater Potentiometric Map, showing the approximate groundwater gradient and flow direction across the site is shown in Figure 3. The attached Tables 1 and 2 present the historical laboratory analytical results and fluid level monitoring data, respectively.

## **SITE DESCRIPTION**

The subject property, 1532 Peralta Street, (the site) is located at the southeast corner of Peralta Street and 16th Street in Oakland, California (Alameda County). The site lies approximately one mile south of the San Francisco Bay. The elevation of the site is approximately 10 feet above Mean Sea Level (MSL, Figure 1). The site consists of a roughly rectangular site occupying 6,307 square feet (0.13 acre) in area. Mr. Orobo Osagie previously owned the site from May 1998 to early 2006, at which time Mr. James Tracy of Alpine Rentals took claim as the new responsible party for the site (Alameda County Assessor Parcel 5-370-1). The site is currently leased to Peralta Auto Care for the service of automobiles. The site previously operated as a gasoline service station. The nearby property, located to the northeast, across 16th Street (1600 Peralta Street), was a former gasoline service station and car repair garage (Figure 2).

The site is relatively flat with the topographic relief generally directed towards the northwest in the general direction of the San Francisco Bay (Figure 1). A single story, divided structure, approximately 1,175 square feet in area, lies on the southeast side of the site and is currently used as an automobile service garage. The flooring in the service garage and office space is paved with concrete. The majority of the site is paved throughout with asphalt.

According to a Geologic Map of the San Francisco-San Jose Quadrangle (California Department of Conservation, 1990), the site lies on artificial fill and underlain by up to 500 feet of Quaternary alluvial deposits (unconsolidated and dissected stream and basin deposits) and possibly marine sandstone, shale, cherts, and conglomerates of the

Mesozoic Franciscan Complex (thickness not established). Soil texture at the site observed during the February 2004 soil boring/well installation, was predominately clayey, silty, fine-grained sand to a total exposed sample depth of 16 feet below ground surface (bgs). Grain size analysis of soil collected during the activities was not performed. The geologic map also indicates that the site is situated approximately 4 miles southwest and 14 miles northeast of the Hayward and San Andreas Fault Zones, respectively.

The subject site is located within the East Bay Plain Groundwater Basin. This groundwater is classified as a significant drinking water resource. However, further de-designation of the groundwater in the area of the site is possible based on several factors, such as low yield, brackish quality, or other surface contaminants and considerations.

The regional groundwater flow direction in the vicinity of the site is estimated to be toward the north-northwest, in the general direction of the San Francisco Bay and decreasing topographic relief. The depth to groundwater at the site measured in the monitoring wells is between 2 and 4.5 ft bgs. The nearest surface water body is the Oakland Outer Harbor of the San Francisco Bay, located approximately 1.03 miles northwest of the subject property (Figure 1). The groundwater flow direction calculated from groundwater elevations in the onsite monitoring wells has been consistent and is directed North to Northwest, with a gradient of approximately 0.005 ft/ft.

## **PROJECT HISTORY**

**Underground Tank Removal: December 1999:** In December 1999, Golden Gate Tank removal, Inc. (GGTR) removed five USTs from the site at the locations shown in Figure 2. The following table presents a summary of the tank designations, size, type of construction, and contents:

Designation	Construction	Diameter (Feet)	Length (Feet)	Volume (Gallons)	Contents
UST #1	Steel	6	10	2,000	diesel
UST #2	Steel	4	7	675	gasoline
UST #3	Steel	4	7	675	gasoline
UST #4	Steel	5	7	1,000	gasoline
UST #5	Steel	5	7	1,000	diesel

GGTR subsequently collected soil samples from each excavation between 7 and 12.5 feet bgs. These samples contained maximum concentrations of total petroleum hydrocarbons (TPH) as gasoline (TPH-G 2,600 milligrams per kilogram [mg/kg; parts per million]), TPH as diesel (TPH-D 8,100 mg/kg), and benzene (9.1 mg/kg). UST removal and sampling activities were conducted under the supervision of Mr. Hernan Gomez of the City of Oakland Fire Prevention Bureau (OFPB). Laboratory results of the soil samples collected after the tank removal are presented in the report entitled *Tank Closure Report, GGTR December 15, 1999 and Site Characterization and Groundwater Monitoring*

*Report, GGTR September 14, 2006.* Following sampling, the excavations were backfilled with the excavated soil stockpiles. The volume of the USTs was replaced with imported soil. Based on analytical results of the excavation soil sample analysis, Mr. Gomez requested a work plan of over-excavation activities to assess the extent of hydrocarbon-affected soil and potential impact to groundwater in the vicinity of the former USTs.

**January and February 2000:** On January 3, 2000, GGTR submitted the requested work plan, which was approved by the OFPB in a letter dated January 25, 2000.

In January and February 2000, in accordance with the proposed work plan activities, GGTR over-excavated the former UST cavities up to approximately 11 ft bgs, and to the approximate lateral limits shown in Figure 2. GGTR collected soil samples from the sidewalls (7.5 ft bgs.) and from the bottom (12 ft bgs.) of the over-excavated cavities. Groundwater accumulated within the excavations and was subsequently purged prior to sampling.

After groundwater stabilized within each excavation at approximately 8 ft bgs, GGTR collected a groundwater sample from each excavation. GGTR performed the sampling activities under the direction of Mr. Gomez of the OFPB. Approximately 194 tons of petroleum hydrocarbon impacted soil were excavated from the site and disposed of at Forward, Inc. in Manteca, California. The excavation was subsequently backfilled and the pavement was replaced with concrete and asphalt, respectively. Significant concentrations of TPH-G, TPH-D, benzene, and methyl tertiary-butyl ether (MTBE in groundwater only) were reported for each sample. Sampling activities and soil and groundwater laboratory results are presented in the GGTR's *Remedial Activity Report*, dated March 8, 2000.

Following review of GGTR's Remedial Activity Report, the ACHCSA, in letters dated May 19 and May 25, 2000, identified elevated levels of residual gasoline and diesel-range hydrocarbons in the soil and groundwater in the vicinity of the former USTs and requested a work plan to evaluate the lateral and vertical extent of contamination at the site.

**October 2000:** On October 6, 2000, DECON Environmental Services, Inc. (DECON) of Hayward, California prepared the requested work plan (*Remedial Activity Plan, October 2000*), which was subsequently approved by Mr. Larry Seto of the ACHCSA. After further review of DECON's work plan, representatives of both the ACHCSA and State Water Resources Control Board UST Cleanup Fund concurred that the work plan required additional content and requested that it be revised and resubmitted to the ACHCSA for review and approval. In February 2002, GGTR prepared the revised work plan for soil and groundwater investigation activities at the subject property.

In February 2004 GGTR advanced 11 soil borings and converted six of these borings to monitoring wells (Figure 2). After a delay due to site ownership transfer, details of the

field activities for the boring and well installation were documented in GGTR report Site Characterization and Groundwater Monitoring Report, dated September 14, 2006.

**Preliminary Soil Sampling / Monitoring Well Installation (MW-1 through MW-6): February 2004** - In February 2004 and in collaboration with Gregg Drilling, Inc., GGTR advanced eleven direct-push soil borings (B1 through B11) to a depth of 12 to 16 feet bgs. Six of the borings were converted to pre-packed  $\frac{3}{4}$  " diameter monitoring wells. Borings B2, B4, B6, B9, B10, and B11 were converted to monitoring wells MW-1 through MW-6, respectively. Groundwater was encountered between 2 and 4 feet bgs and stabilized in the wells at approximately 2 to 3 feet bgs. The investigation objective was to define the extent of petroleum hydrocarbon impact to soil and groundwater. Permits, boring logs, well sampling field sheets, and the laboratory analytical reports for soil and groundwater are presented in the report entitled *Site Characterization and Groundwater Monitoring Report, GGTR September 14, 2006*.

On April 13, 2006, Virgil Chavez Land Surveying of Vallejo California, surveyed the top of casings of all six monitoring wells at and near the site. Mr. Chavez survey data are included in Attachment A.

**Groundwater Monitoring (MW-1 through MW-6): March 2004 to September 2006** - GGTR has conducted four groundwater-monitoring events to date: March 5, 2004, and March 27, June 22, and September 25, 2006. Sample analytical results and associated fluid level monitoring data for each event are summarized in Tables 1 and 2, respectively. Figure 3 shows the groundwater flow direction for each monitoring event. The groundwater flow direction is consistent and towards North to Northwest with a gradient of approximately 0.005 feet/feet.

## **GROUNDWATER MONITORING & SAMPLING-SEPTEMBER 2006**

The scope of work covered in this report includes the following:

- Monitoring, purging and sampling six monitor wells (MW-1 to MW-6)
- Laboratory analysis of groundwater samples
- Waste Management
- Data interpretation and report preparation
- AB2886 GeoTracker Upload

**Groundwater Sampling Field Procedures** - GGTR conducted quarterly groundwater monitoring and sampling activities at the Site on September 25, 2006. Prior to purging and sampling each of the six monitoring wells, GGTR measured and recorded the depth to groundwater and presence of floating product using an oil/water interface meter. Fluid levels were measured to the nearest 0.01 foot. A copy of the *Fluid-Level Monitoring Data Form* is presented in attachment A.

GGTR then purged groundwater from each well using a low-flow peristaltic pump connected to disposable polyethylene tubing. The wells were purged until three consecutive parameter readings of pH, specific conductivity and temperature were measured within a range of 0.1, 10%, and 3%, respectively. The groundwater level was measured immediately after purging and just before sampling each well, in order to determine specific recharge rates. The purge water was transferred directly to a 55-gallon, D.O.T.-approved steel drum. After recharge of approximately 80% of the groundwater column in each well, GGTR collected a groundwater sample from each well using either a disposable bailer or a peristaltic pump and clean polyethylene tubing. GGTR collected the samples by lowering the polyethylene tubing or the bailer to just below the water in each well casing. Subsequently, each sample was placed into the appropriate laboratory sample containers. All VOA vials were sealed with a threaded cap, inverted, and checked to ensure that no entrapped air was present. Well Purging/Sampling Data Sheets are included in Attachment A.

The groundwater samples were then labeled and immediately stored in a cooler chilled to 4° centigrade. GGTR transported the samples to a California-Certified analytical laboratory under formal chain-of-custody protocol.

Between monitoring and purging activities between each well, all downhole monitoring and purging equipment was decontaminated using an Alconox wash solution and doubled rinse with clean, potable water. GGTR transferred the wash and rinse water to a 55-gallon, D.O.T. approved steel drum, which was labeled and temporarily stored onsite in a secure area.

**Groundwater Sample Analysis:** - On September 26, 2006, GGTR submitted the groundwater samples under formal chain of custody command to Entech Analytical Labs, Inc. (CA ELAP #2346) in Santa Clara, California for laboratory analysis of the following fuel constituents:

- Total Petroleum Hydrocarbon - Extractable (TPH-E; EPA Method 3510C/8015B)
- Total Petroleum Hydrocarbon-Purgeable (TPH-P; GC/MS)
- Volatile Organic Compounds (VOC; EPD Method 8260B)

Entech performed all volatile analyses by September 27, 2006, which is in conformance with the maximum 14-day holding time for these analyses. A copy of the Laboratory Certificate of Analysis and associated Chain of Custody form is presented in Attachment B.

**GeoTracker AB2886 Electronic Submittal** - GGTR directed Entech to submit all analytical data in electronic deliverable format (EDF) via the Internet. GGTR uploaded the analytical data as well as the Fluid-Level Monitoring Data (GEO\_WELL) to the State Water Resources Control Board's GeoTracker Database System pursuant to State Assembly Bill 2886. GGTR also uploaded a copy of this report in Portable Data Format



(PDF) to the GeoTracker Database. A copy of each associated GeoTracker AB2886 Upload Confirmation Form is included in Attachment B.

**Groundwater Waste Management** - The well purge water and equipment wash and rinse water generated during the September 25, 2006 monitoring event (approximately 13.5 gallons), was transferred to a 55-gallon D.O.T.-approved steel drums and stored onsite in a secure area for use with future monitoring events.

## **RESULTS**

**Results of Groundwater Sampling and Laboratory Analysis** – Laboratory analytical results and fluid levels monitoring data for groundwater monitoring wells MW-1 to MW-6 are presented in the attached Tables 1 and 2, respectively. Copies of the field documentation of the monitoring, purging and sampling activities performed during the September 25, 2006 event are presented in Attachment A. A copy of the official Laboratory Certificates of Analysis and the associated Chain-of-Custody Form is presented in Attachment B.

The highest gasoline-range hydrocarbon concentrations exceeding applicable Environmental Screening Levels (ESL, Table 1) were measured in monitoring wells MW-1, MW-4, MW-5, and MW-6. The maximum TPH-G and benzene concentrations were detected in MW-6, at 3,700 and 430 micrograms per liter (ug/l), respectively. TPH-G concentrations have slightly fluctuated in this well since March 2004, between 3,700 and 6,450 ug/l, and benzene has fluctuated in this well between 430 and 1,950 ug/l. TPH-G was again not detected in the groundwater sample collected from MW-2, which is consistent with a general decreasing trend in concentration for this well. Benzene continues to significantly exceed its applicable screening level in wells MW-5 and MW-6, both located in the direct proximity of the former gasoline USTs (#'s 2-4; Figure 2). Insignificant or non-detectable concentrations of benzene were again measured in monitor wells MW-1 to MW-4 during this event. MTBE exceeding its applicable ESL, was detected in the groundwater samples collected in MW-1, MW-4, MW-5 and MW-6, with maximum concentrations of 920 ug/l (MW-6) and 1,200 ug/l (MW-5). Tert-butanol (TBA) was again detected in the groundwater samples in MW-1 and MW-4, exceeding its listed ESL.

In accordance with the ACHCSA's November 29, 2006 letter, all groundwater samples were analyzed for TPH as diesel. All sample concentrations were again below the laboratory reporting limit (50 ug/l).

**Results of Groundwater Measurements** – The groundwater gradient for the September 25, 2006, monitoring event has been estimated and is shown on the attached Groundwater Gradient Map (Figure 3). Table 2 attached, includes the historical data on monitor well groundwater elevations, since March 2004. The regional groundwater flow direction in the vicinity of the site is estimated to be toward the north, toward the San Francisco Bay and in the general direction of decreasing topographic relief (Figure 1). The depth to

groundwater measured in MW-1 to MW-6 on September 25, 2006 ranged from approximately 3.4 (MW-3) to 4.8 (MW-1) ft bgs, with associated groundwater elevations ranging from 5.06 (MW-2) to 5.36 (MW-4) feet above MSL.

Similar to the groundwater conditions observed in March and June 2006, groundwater was generally flowing northward across the site on September 25, 2006. Figure 3, Groundwater Gradient Map, shows a map of the estimated groundwater flow direction and gradient. On September 25, 2006, groundwater elevations decreased by approximately one foot across the site. To calculate the gradient magnitude across the site, GGTR selected MW-1, MW-2, and MW-3, which were installed in natural soil formation. The remaining wells were not considered during gradient calculations for they were installed in fill material within the former UST excavation (Figure 3). The gradient magnitude across the site is approximately 0.003 ft/ft.

To provide an estimate of the overall groundwater flow direction and gradient magnitude across the site, GGTR entered the California State coordinate data and groundwater elevations for the three selected monitor wells into the U.S. Environmental Protection Agency (EPA) "On-line Tools for Site Assessment Calculation" program titled "Gradient and Direction from Four or More Points." The EPA program calculates the least-squares solution-fitting of the data to a plane surface. The resulting groundwater gradient calculated by this tool for the combined three (3) groundwater monitoring wells is North 0° East with a gradient magnitude of 0.0034 ft/ft. The graphical estimate and least-squares fit are generally in agreement for estimates of this nature. GGTR utilized the least-squares derived estimate of North 0° East with a gradient magnitude of 0.0034 ft/ft as general representation of the September 25, 2006, groundwater conditions. A print out of the online worksheet, as well as a copy of the April 20, 2006 Monitor Well Survey Data sheet (Virgil Chavez Land Surveying) are included in Attachment A.

## **RECOMMENDATIONS**

To further assess the extent of contamination in soil and groundwater at the site, GGTR recommends implementation of the activities proposed in our *September 14, 2006 Site Characterization and Groundwater Monitoring Report*, which was conditionally approved by the ACHCSA in its most recent directive letter, dated November 29, 2006. Based on this letter, GGTR is in the process of conducting a conduit and well study, preparing a site conceptual model, and preparing a work plan for further site characterization.

In the interim, GGTR recommends continued quarterly groundwater monitoring at the site. Each of the six monitoring wells MW-1 through MW-6 should be analyzed for TPH-G by EPA Method GC/MS, TPH-D by EPA Method 3510C/8015B, and BTEX, MTBE, and Fuel Oxygenates by EPA Method 8260B. Fourth Quarter 2006 groundwater sampling activities are tentatively scheduled at the site on Thursday, December 28, 2006.

## **REPORT DISTRIBUTION**

A copy of this quarterly groundwater monitoring report be submitted to the following site representatives:

Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577  
*Attn: Mr. Barney Chan*

*(1 Electronic Copy via ACGOV FTP)  
(1 Electronic Copy via GeoTracker)*

Alpine Rentals  
Mr. James Tracy  
878 W. Hayden Court  
Alpine, Utah 84004

*(1 Copy; Bound)*

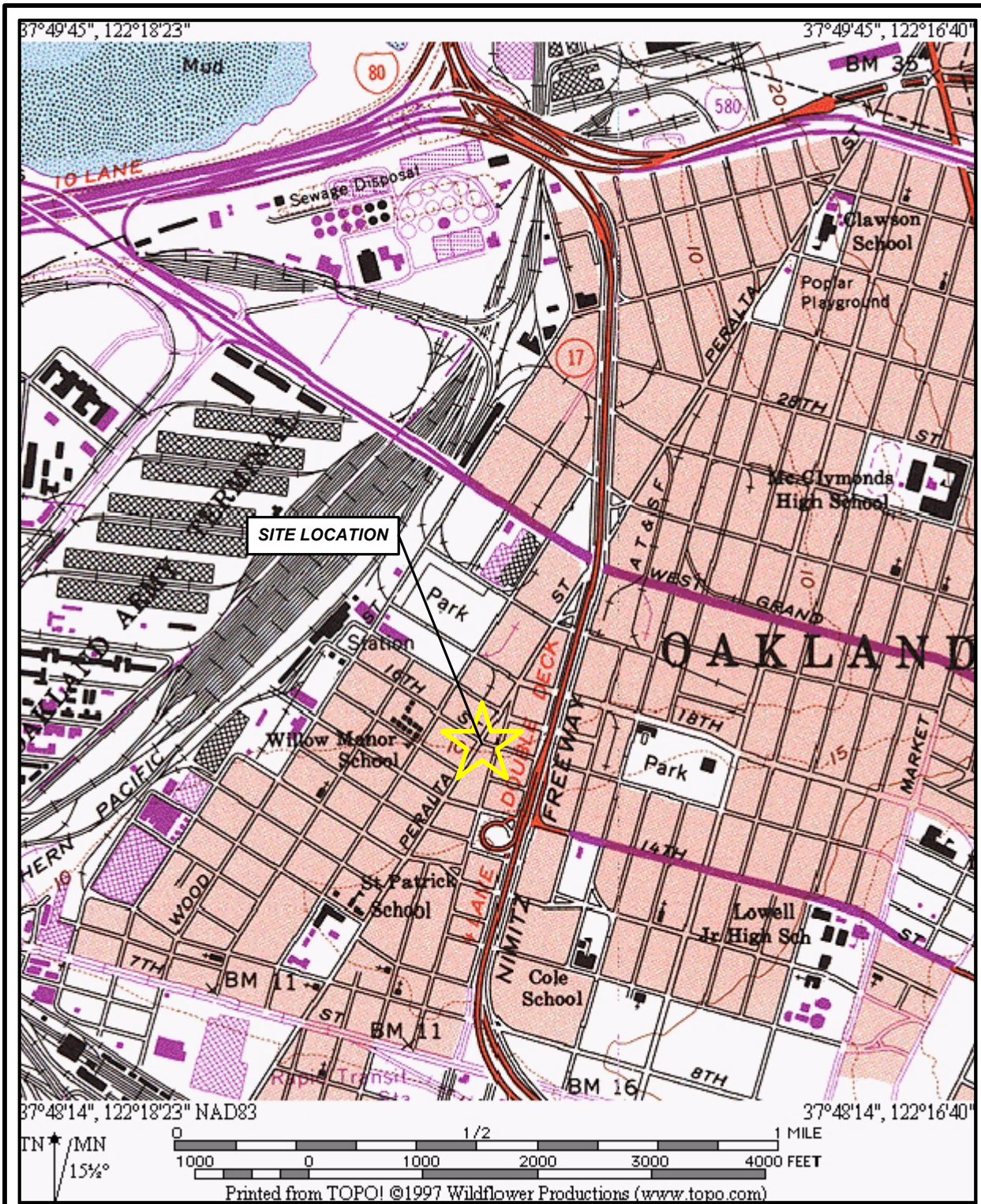
## **LIMITATIONS**

This report has been prepared in accordance with generally accepted environmental practices exercised by professional geologists, scientists, and engineers. No warranty, either expressed or implied, is made as to the professional advice presented herein. The findings contained in this report are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions as they existed at the time of the investigation, and are subject to change.

The scope of services conducted in execution of this phase of investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document and any of its information presented herein is at the sole risk of said user.

***Golden Gate Tank Removal, Inc.***





**GOLDEN GATE TANK REMOVAL**  
 255 Shipley Street  
 San Francisco, CA 94107  
 Ph (415) 512-1555 Fx (415) 512-0964

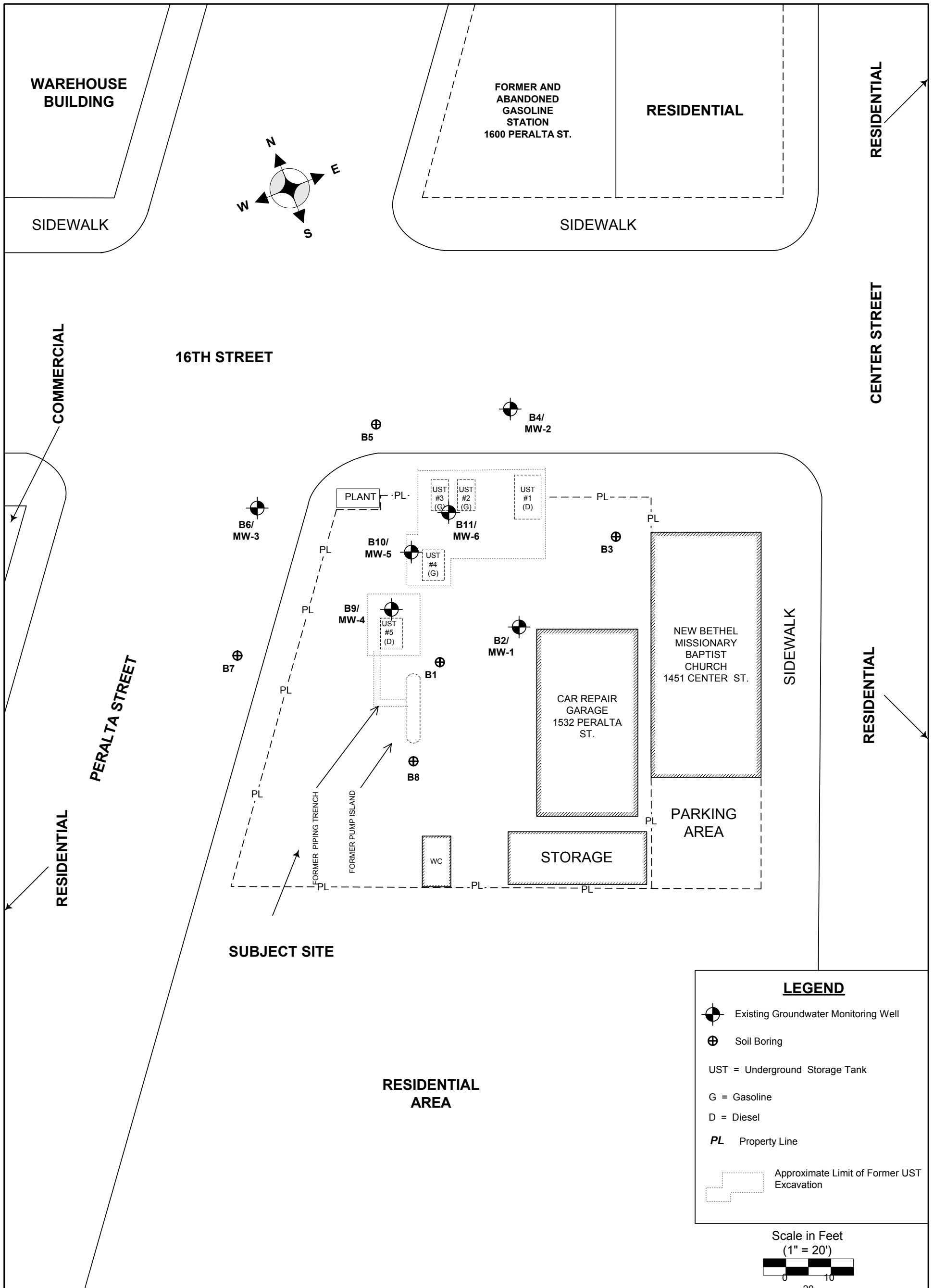
**SITE LOCATION MAP**  
 1532 Peralta Street  
 Oakland, California

GGTR Project No. 7856

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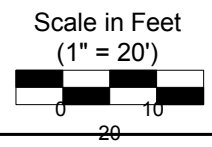
Figure By: baw/02.02

Figure 1

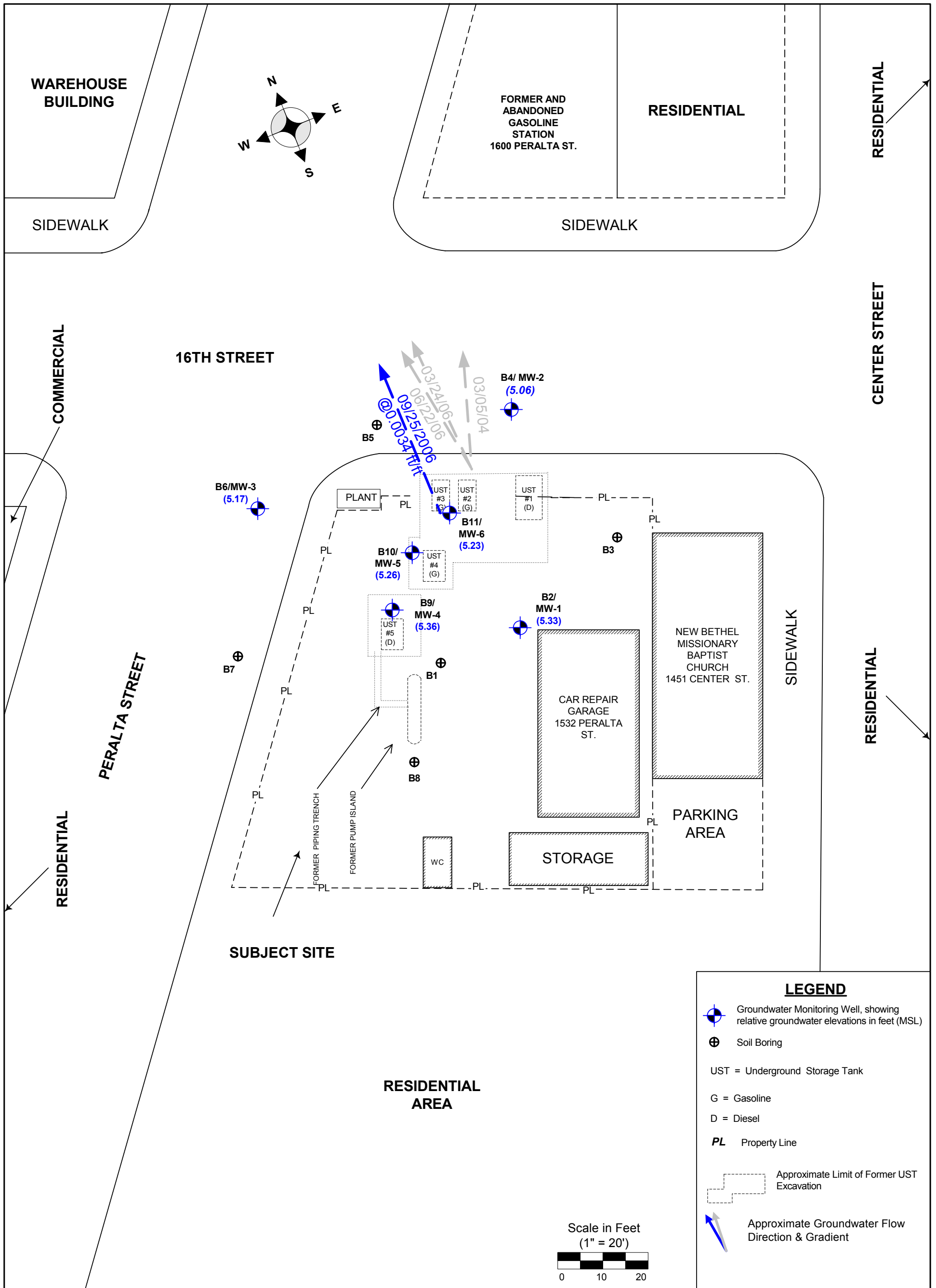


**LEGEND**

- Existing Groundwater Monitoring Well
- Soil Boring
- UST = Underground Storage Tank
- G = Gasoline
- D = Diesel
- PL** Property Line
- Approximate Limit of Former UST Excavation



<b>GOLDEN GATE TANK REMOVAL, INC.</b> 255 Shipley Street, San Francisco, CA 94107 Ph (415) 512-1555 Fx (415) 512-0964		<b>SITE PLAN</b> 1532 Peralta Street Oakland, California	
GGTR Project No. 8757	06/11/06	Figure By: SM	Figure 2



**GOLDEN GATE TANK REMOVAL, INC.**  
 255 Shipley Street, San Francisco, CA 94107  
 Ph (415) 512-1555 Fx (415) 512-0964

**GROUNDWATER GRADIENT MAP**  
 1532 Peralta Street  
 Oakland, California

GGTR Project No. 8757

Fn: 3Q06 GWM\_Fig3\_GW Gradient Map

Revision By: baw/12.06

**Figure 3**



**TABLE 1**  
**HISTORICAL GROUNDWATER WELL SAMPLE RESULTS**  
*1532 Peralta Street, Oakland, CA*

Well ID	Sample Date	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Other Fuel Oxygenates (ug/l)	Total Lead (mg/l)	Total Dissolved Solids (mg/l)
MW-1	3/5/2004	571	220	4.1	1.6	0.6	5.8	53.2	NA	ND<0.05	NA
	3/27/2006	520*	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	61*	11(TBA)	NA	NA
	6/22/2006	790	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	11(TBA)	NA	NA
	9/25/2006	500**	ND<50	2.4	ND<0.5	ND<0.5	ND<0.5	31*	17(TBA)	NA	NA
MW-2	3/5/2004	109	ND<50	3.9	ND<0.5	ND<0.5	ND<1.0	6.9	NA	ND<0.05	NA
	3/27/2006	30*	ND<62	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2*	ND	NA	NA
	6/22/2006	ND<25*	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0*	ND	NA	NA
	9/25/2006	ND<25**	ND<50	0.9	ND<0.5	ND<0.5	ND<0.5	ND<1.0*	ND<100	NA	NA
MW-3	3/5/2004	185	200	1	1	ND<0.5	1.3	2.5	NA	NA	NA
	3/27/2006	ND<25*	ND<72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0*	ND	NA	NA
	6/22/2006	ND<25*	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0*	ND	NA	NA
	9/25/2006	44**	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	ND<1.0*	ND<100	NA	NA
MW-4	3/5/2004	1,110	370	3.2	3.9	1	3.3	8.5	NA	ND<0.05	NA
	3/27/2006	2,000*	ND<50	ND<1.0	1	ND<1.0	1.1	9.3*	33(TBA)	NA	NA
	6/22/2006	430*	NA	ND<1.0	1	ND<0.5	1.3	11*	28(TBA)	NA	NA
	9/25/2006	700**	ND<50	ND<1.0	ND<0.5	ND<0.5	ND<0.5	12*	34(TBA)	NA	NA
MW-5	3/5/2004	1,660	NA	650	7.6	1.6	7.1	2,250*	NA	ND<0.05	NA
	3/27/2006	1,600*	ND<50	89	5.6	ND<5.0	8.7	1,200*	170(TBA)	NA	NA
	6/22/2006	2,000	NA	240	11	ND<10	ND<10	1,100	ND<200 (TBA)	NA	570
	9/25/2006	2,200**	ND<50	160	ND<10	ND<10	ND<10	1,200	ND<2000	NA	NA
MW-6	3/5/2004	6,450	800	1,950	29.6	52.7	54.6	1,440	NA	ND<0.05	NA
	3/27/2006	4,800*	ND<50	820	14	12	22	1,100*	180(TBA)	NA	NA
	6/22/2006	5,200	NA	630	12	14	13	1,100*	ND<200 (TBA)	NA	520
	9/25/2006	3700**	ND<50	430	ND<10	ND<10	ND<10	920*	ND<2000	NA	NA
<b>CRWQCB Tier 1 ESL</b>		100	100	1	40	30	20	5	12(TBA)	2.5	NC

**NOTES:** TPH-G = total petroleum hydrocarbons as gasoline (EPA Methods 8015M/8021B)  
TPH-D = total petroleum hydrocarbons as diesel (EPA Methods 3510C/8015M)  
B, T, E, X = benzene, toluene, ethylbenzene, and total xylenes (EPA Methods 8015M/8021B)  
MTBE = methyl tertiary-butyl ether (EPA Method s 8015M/8021B)  
Other Fuel oxygenates by EPA method 8260B; including tert-amyl methyl-ether (TAME), di-isopropyl ether (DIPE), tert-butanol (TBA), and ethanol  
mg/l = milligrams per Liter or parts per million (ppm); ug/l = micrograms per Liter or parts per billion (ppb)  
ND = concentration less than the laboratory reporting limit  
NA = Sample not analyzed for this chemical constituent or not applicable; NC = No criteria established  
\* = analyzed by EPA Method 8260B  
\*\* = analyzed as TPH-Purgeable: GC/MS  
CRWQCB ESL = February 2005 Interim Final CRWQCB Tier 1 Environmental Screening Levels where groundwater is a current or potential source of drinking water  
Other Fuel oxygenates not tabulated above were either not detected or not included in the analysis

**TABLE 2**  
**HISTORICAL GROUNDWATER MONITORING RESULTS**  
*1532 Peralta Street, Oakland, CA*

Parameter Measured	Date	Monitoring Well Number					
		MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Relative Elevation of TOC from MSL (feet)	4/13/2006	9.87	8.66	8.29	9.74	9.4	9.02
DTW (Feet Below TOC)	3/5/2004	3.18	2.73	2.1	2.85	2.83	2.5
	3/24/2006	2.72	2.11	1.74	2.64	2.41	2.08
	6/22/2006	3.53	2.73	2.38	3.43	3.17	2.85
	9/25/2006	4.54	3.6	3.12	4.38	4.14	3.79
Relative Groundwater Elevation (Feet Above MSL)	3/5/2004	6.69	5.93	6.19	6.89	6.57	6.52
	3/24/2006	7.15	6.55	6.55	7.1	6.99	6.94
	6/22/2006	6.34	5.93	5.91	6.31	6.23	6.17
	9/25/2006	5.33	5.06	5.17	5.36	5.26	5.23
Product Thickness (Inches)	NA	NA	NA	NA	NA	NA	NA
	3/24/2006	0.00	0.00	0.00	0.00	0.00	0.00
	6/22/2006	0.00	0.00	0.00	0.00	0.00	0.00
	9/25/2006	0.00	0.00	0.00	0.00	0.00	0.10

**NOTES:**

DTW = depth to water

NA = not applicable at time of measurement

MSL = Mean Sea Level

TOC = Top of Well Casing



# **ATTACHMENT A**

**FLUID-LEVEL MONITORING DATA FORM  
WELL PURGING/SAMPLING DATA SHEETS  
EPA ONLINE WORKSHEET  
MONITORING WELL SURVEY DATA SHEET**

# Golden Gate Tank Removal, Inc.

## FLUID-LEVEL MONITORING DATA

Project No: 8757 Date: 7/25/04

Project/Site Location: 1532 ADALTA ST., OAKLAND

Technician: A. RAISED Instrument: WLI

Boring Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	Comments
MW-1	4.54	-	-	14.48	1015
MW-2	3.60	-	-	13.96	1009
MW-3	3.12	-	-	13.94	1005
MW-4	4.38	-	-	10.58	1020
MW-5	4.14	-	-	5.28	1025
MW-6	3'79	3'69	0'1	14.27	1088

# Golden Gate Tank Removal, Inc.

## WELL PURGING/SAMPLING DATA

Project Number: 8757

Date: 9/25/00

Project / Site Location: 1532 PRORATA ST., OAKLAND

Sampler/Technician: A. RAHED

Casing/Borehole Diameter (inches)	0.75/1.75	2/8	4/8	4/10	6/10	6/12
Casing/Borehole Volumes (gallons/foot)	0.02/0.13	0.2/0.9	0.7/1.2	0.7/1.6	1.5/2.2	1.5/3.1

Well No. <u>MW-1</u>	Well No. <u>MW-2</u>
A. Total Well Depth <u>14.48</u> Ft.(toc)	A. Total Well Depth <u>13.96</u> Ft.(toc)
B. Depth To Water <u>4.54</u> Ft.	B. Depth To Water <u>3.60</u> Ft.
C. Water Height (A-B) <u>9.94</u> Ft.	C. Water Height (A-B) <u>10.36</u> Ft.
D. Well Casing Diameter <u>0.75</u> In.	D. Well Casing Diameter <u>0.75</u> In.
E. Casing Volume Constant (from above table) <u>0.02</u>	E. Casing Volume Constant (from above table) <u>0.02</u>
F. Three (3) Casing or Borehole Volumes (CxEx3) <u>0.596</u> Gals.	F. Three (3) Casing or Borehole Volumes (CxEx3) <u>0.621</u> Gals.
G. 80% Recharge Level [B+(ExC)] <u>4.73</u> Ft.	G. 80% Recharge Level [B+(ExC)] <u>3.80</u> Ft.
<u>Purge Event #1</u>	<u>Purge Event #1</u>
Start Time: <u>12:20</u>	Start Time: <u>11:29</u>
Finish Time: <u>12:40</u>	Finish Time: <u>11:41</u>
Purge Volume: <u>0.5 gal</u>	Purge Volume: <u>0.5 gal</u>
<u>Recharge #1</u>	<u>Recharge #1</u>
Depth to Water: <u>12.28</u>	Depth to Water: <u>11.21</u>
Time Measured: <u>12:42</u>	Time Measured: <u>11:43</u>
<u>Purge Event #2</u>	<u>Purge Event #2</u>
Start Time:	Start Time:
Finish Time:	Finish Time:
Purge Volume:	Purge Volume:
<u>Recharge #2</u>	<u>Recharge #2</u>
Depth to Water:	Depth to Water:
Time Measured:	Time Measured:
<b>Well Fluid Parameters:</b> (Casing or Borehole Volumes)	<b>Well Fluid Parameters:</b> (Casing or Borehole Volumes)
0      1      1.5      2      2.5      3	0      1      1.5      2      2.5      3
Time <u>12:20</u> <u>12:25</u> <u>12:30</u> <u>12:35</u> <u>12:40</u>	Time <u>11:29</u> <u>11:33</u> <u>11:36</u> <u>11:39</u> <u>11:41</u>
pH <u>7.01</u> <u>6.94</u> <u>6.98</u> <u>7.01</u> <u>7.01</u>	pH <u>7.39</u> <u>6.99</u> <u>7.06</u> <u>6.98</u> <u>6.98</u>
T (°F) <u>22.1</u> <u>22.2</u> <u>22.2</u> <u>22.1</u> <u>22.2</u>	T (°F) <u>22.4</u> <u>22.4</u> <u>22.2</u> <u>22.4</u> <u>22.4</u>
Cond. <u>48.1</u> <u>45.5</u> <u>46.2</u> <u>46.4</u> <u>46.9</u>	Cond. <u>57.4</u> <u>56.3</u> <u>55.2</u> <u>56.9</u> <u>49.9</u>
DO	DO
Turbidity	Turbidity
ORP	ORP
<b>Summary Data:</b>	<b>Summary Data:</b>
Total Gallons Purged: <u>0.6</u>	Total Gallons Purged: <u>0.65</u>
Purge device: <u>Peristaltic</u> Intake Depth:	Purge device: <u>PERISTALTIC</u> Intake Depth: <u>TD</u>
Sampling Device: <u>Peristaltic</u>	Sampling Device: <u>BALLOON/PERISTALTIC</u>
Sample Collection Time: <u>3:05</u>	Sample Collection Time: <u>2:45</u>
Sample Appearance: <u>slight murky</u>	Sample Appearance: <u>clear</u>

Drums Remaining Onsite: \_\_\_\_\_ Total Volume: \_\_\_\_\_ Gals. (Show Location on Site Plan)

# Golden Gate Tank Removal, Inc.

## WELL PURGING/SAMPLING DATA

Project Number: 8757

Date: 9/25/06

Project / Site Location: 1532 PIEDMONT ST., OAKLAND

Sampler/Technician: A. RAHED

Casing/Borehole Diameter (inches)	0.75/1.75	2/8	4/8	4/10	6/10	6/12
Casing/Borehole Volumes (gallons/foot)	0.02/0.13	0.2/0.9	0.7/1.2	0.7/1.6	1.5/2.2	1.5/3.1

Well No. <u>MW-3</u>	Well No. <u>MW-4</u>
A. Total Well Depth <u>13.94</u> Ft.(toc)	A. Total Well Depth <u>10.58</u> Ft.(toc)
B. Depth To Water <u>3.12</u> Ft.	B. Depth To Water <u>4.38</u> Ft.
C. Water Height (A-B) <u>10.82</u> Ft.	C. Water Height (A-B) <u>6.2</u> Ft.
D. Well Casing Diameter <u>0.75</u> In.	D. Well Casing Diameter <u>0.75</u> In.
E. Casing Volume Constant (from above table) <u>0.02</u>	E. Casing Volume Constant (from above table) <u>0.02</u>
F. Three (3) Casing or Borehole Volumes (CxEx3) <u>0.649</u> Gals.	F. Three (3) Casing or Borehole Volumes (CxEx3) <u>0.372</u> Gals.
G. 80% Recharge Level [B+(ExC)] <u>3.386</u> Ft.	G. 80% Recharge Level [B+(ExC)] <u>4.904</u> Ft.
<u>Purge Event #1</u>	<u>Purge Event #1</u>
Start Time: <u>11:02</u>	Start Time: <u>1:02</u>
Finish Time: <u>11:09</u>	Finish Time: <u>1:19</u>
Purge Volume: <u>0.25</u> gal.	Purge Volume: <u>0.45</u> gal.
<u>Recharge #1</u>	<u>Recharge #1</u>
Depth to Water: <u>12.99</u> <u>11.4</u> <u>5.98</u>	Depth to Water: <u>8.35</u>
Time Measured: <u>11:12</u> <u>11:17</u> <u>11:50</u>	Time Measured: <u>1:21</u>
<u>Purge Event #2</u>	<u>Purge Event #2</u>
Start Time: <u>2:30</u>	Start Time:
Finish Time: <u>2:33</u>	Finish Time:
Purge Volume:	Purge Volume:
<u>Recharge #2</u>	<u>Recharge #2</u>
Depth to Water: <u>11.90</u>	Depth to Water:
Time Measured: <u>2:35</u>	Time Measured:
<b>Well Fluid Parameters:</b> (Casing or Borehole Volumes)	<b>Well Fluid Parameters:</b> (Casing or Borehole Volumes)
0      1      1.5      2      2.5      3	0      1      1.5      2      2.5      3
Time <u>11:02</u> <u>11:07</u> <u>2:30</u> <u>2:33</u>	Time <u>1:02</u> <u>1:07</u> <u>1:10</u> <u>1:14</u> <u>1:19</u>
pH <u>7.65</u> <u>7.57</u> <u>7.72</u> <u>7.67</u>	pH <u>6.98</u> <u>7.00</u> <u>6.96</u> <u>6.98</u> <u>7.01</u>
T (°F) <u>24.7</u> <u>24.2</u> <u>24.6</u> <u>24.4</u>	T (°F) <u>23.2</u> <u>22.5</u> <u>22.4</u> <u>22.4</u> <u>22.4</u>
Cond. <u>51.4</u> <u>16.62</u> <u>18.24</u> <u>18.82</u>	Cond. <u>57.4</u> <u>54.0</u> <u>54.5</u> <u>54.7</u> <u>55.2</u>
DO	DO
Turbidity	Turbidity
ORP	ORP
<b>Summary Data:</b>	<b>Summary Data:</b>
Total Gallons Purged: <u>0.85</u>	Total Gallons Purged: <u>0.5</u>
Purge device: <u>Peristaltic</u> Intake Depth:	Purge device: <u>Peristaltic</u> Intake Depth:
Sampling Device: <u>Peristaltic</u>	Sampling Device: <u>Peristaltic</u>
Sample Collection Time: <u>3:55</u>	Sample Collection Time: <u>3:17</u>
Sample Appearance: <u>clear</u>	Sample Appearance: <u>clear</u>

Drums Remaining Onsite: \_\_\_\_\_ Total Volume: \_\_\_\_\_ Gals. (Show Location on Site Plan)

# Golden Gate Tank Removal, Inc.

## WELL PURGING/SAMPLING DATA

Project Number: 8757

Date: 7/25/06

Project / Site Location: 1532 PIEDATA ST., OAKLAND

Sampler/Technician: A. RAHED

Casing/Borehole Diameter (inches)	0.75/1.75	2/8	4/8	4/10	6/10	6/12
Casing/Borehole Volumes (gallons/foot)	0.02/0.13	0.2/0.9	0.7/1.2	0.7/1.6	1.5/2.2	1.5/3.1

<p>Well No. <u>MW-5</u></p> <p>A. Total Well Depth <u>5.28</u> Ft.(toc)          B. Depth To Water <u>4.14</u> Ft.          C. Water Height (A-B) <u>1.14</u> Ft.          D. Well Casing Diameter <u>0.75</u> In.          E. Casing Volume Constant (from above table) <u>0.02</u>          F. Three (3) Casing or Borehole Volumes (CxEx3) <u>0.068</u> Gals.          G. 80% Recharge Level [B+(ExC)] <u>4.162</u> Ft.</p> <p><u>Purge Event #1</u>          Start Time: <u>1:30</u>          Finish Time: <u>1:38</u>          Purge Volume: <u>0.05 gal</u></p> <p><u>Recharge #1</u>          Depth to Water: <u>5.20'</u>          Time Measured: <u>1:40</u></p> <p><u>Purge Event #2</u>          Start Time:          Finish Time:          Purge Volume:</p> <p><u>Recharge #2</u>          Depth to Water:          Time Measured:</p> <p><b>Well Fluid Parameters:</b>          (Casing or Borehole Volumes)</p> <table border="1" style="width: 100%;"> <tr> <td></td> <td>0</td> <td>1</td> <td>1.5</td> <td>2</td> <td>2.5</td> <td>3</td> </tr> <tr> <td>Time</td> <td>1:30</td> <td>1:38</td> <td>1:38</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pH</td> <td>8.56</td> <td>8.46</td> <td>8.48</td> <td></td> <td></td> <td></td> </tr> <tr> <td>T (°F)</td> <td>24.2</td> <td>24.2</td> <td>24.2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cond.</td> <td>160</td> <td>154.5</td> <td>157.5</td> <td></td> <td></td> <td></td> </tr> </table> <p>DO          Turbidity          ORP</p> <p><b>Summary Data:</b>          Total Gallons Purged: <u>0.07</u>          Purge device: <u>Peristaltic</u> Intake Depth:          Sampling Device: <u>Peristaltic</u>          Sample Collection Time: <u>3:33</u>          Sample Appearance: <u>Slight Murky; slight HC odor</u></p>		0	1	1.5	2	2.5	3	Time	1:30	1:38	1:38				pH	8.56	8.46	8.48				T (°F)	24.2	24.2	24.2				Cond.	160	154.5	157.5				<p>Well No. <u>MW-6</u></p> <p>A. Total Well Depth <u>14.27</u> Ft.(toc)          B. Depth To Water <u>3.79</u> Ft.          C. Water Height (A-B) <u>10.48</u> Ft.          D. Well Casing Diameter <u>0.75</u> In.          E. Casing Volume Constant (from above table) <u>0.02</u>          F. Three (3) Casing or Borehole Volumes (CxEx3) <u>0.628</u> Gals.          G. 80% Recharge Level [B+(ExC)] <u>4.00</u> Ft.</p> <p><u>Purge Event #1</u>          Start Time: <u>1:52</u>          Finish Time: <u>2:10</u>          Purge Volume: <u>0.5 gal</u></p> <p><u>Recharge #1</u>          Depth to Water: <u>10.12'</u>          Time Measured: <u>2:15</u></p> <p><u>Purge Event #2</u>          Start Time:          Finish Time:          Purge Volume:</p> <p><u>Recharge #2</u>          Depth to Water:          Time Measured:</p> <p><b>Well Fluid Parameters:</b>          (Casing or Borehole Volumes)</p> <table border="1" style="width: 100%;"> <tr> <td></td> <td>0</td> <td>1</td> <td>1.5</td> <td>2</td> <td>2.5</td> <td>3</td> </tr> <tr> <td>Time</td> <td>1:52</td> <td>1:57</td> <td>2:02</td> <td>2:08</td> <td>2:10</td> <td></td> </tr> <tr> <td>pH</td> <td>6.75</td> <td>6.88</td> <td>6.82</td> <td>6.9</td> <td>6.8</td> <td></td> </tr> <tr> <td>T (°F)</td> <td>24.9</td> <td>24.4</td> <td>24.4</td> <td>24.4</td> <td>24.6</td> <td></td> </tr> <tr> <td>Cond.</td> <td>91.5</td> <td>85.8</td> <td>88.7</td> <td>90.1</td> <td>88.2</td> <td></td> </tr> </table> <p>DO          Turbidity          ORP</p> <p><b>Summary Data:</b>          Total Gallons Purged: <u>0.7</u>          Purge device: <u>Peristaltic</u> Intake Depth:          Sampling Device: <u>Peristaltic</u>          Sample Collection Time: <u>3:45</u>          Sample Appearance: <u>Greyish Hue; HC odor</u></p>		0	1	1.5	2	2.5	3	Time	1:52	1:57	2:02	2:08	2:10		pH	6.75	6.88	6.82	6.9	6.8		T (°F)	24.9	24.4	24.4	24.4	24.6		Cond.	91.5	85.8	88.7	90.1	88.2	
	0	1	1.5	2	2.5	3																																																																	
Time	1:30	1:38	1:38																																																																				
pH	8.56	8.46	8.48																																																																				
T (°F)	24.2	24.2	24.2																																																																				
Cond.	160	154.5	157.5																																																																				
	0	1	1.5	2	2.5	3																																																																	
Time	1:52	1:57	2:02	2:08	2:10																																																																		
pH	6.75	6.88	6.82	6.9	6.8																																																																		
T (°F)	24.9	24.4	24.4	24.4	24.6																																																																		
Cond.	91.5	85.8	88.7	90.1	88.2																																																																		

Drums Remaining Onsite: \_\_\_\_\_ Total Volume: \_\_\_\_\_ Gals. (Show Location on Site Plan)



# U.S. Environmental Protection Agency

## EPA On-line Tools for Site Assessment Calculation

Recent Additions

EPA Home >> Ecosystems Research > Modeling Subsurface Petroleum Hydrocarbon Transport > OnSite on-line calculators > Gradient and Direction from Four or More Points

### Gradient and Direction from Four or More Points

[Module Home](#)   [Objectives](#)   [Table of Contents](#)   [Previous <](#)   [Next >](#)

Hydraulic Gradient

Gradient Calculation from fitting a plane to as many as fifteen points

$$a x_1 + b y_1 + c = h_1$$

$$a x_2 + b y_2 + c = h_2$$

$$a x_3 + b y_3 + c = h_3$$

...

$$a x_{15} + b y_{15} + c = h_{15}$$

where  $(x_i, y_i)$  are the coordinates of the well and  $h_i$  is the head

$i = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15$

The coefficients a, b, and c are calculated by a least-squares fitting of the data to a plane

The gradient is calculated from the square root of  $(a^2 + b^2)$  and the angle from the arctangent of a/b or b/a depending on the quadrant

Example Data Set 1	Example Data Set 2	Calculate	Clear
Save Data	Recall Data	Go Back	

Site Name

Date

Current Date

Calculation basis

Coordinates

I.D.	x-coordinate	y-coordinate	head <input type="text" value="ft"/>
<input type="text" value="MW-1"/>	<input type="text" value="6043826.01"/>	<input type="text" value="2123268.15"/>	<input type="text" value="5.33"/>
<input type="text" value="MW-2"/>	<input type="text" value="60.43842.34"/>	<input type="text" value="2123315.93"/>	<input type="text" value="5.06"/>
<input type="text" value="MW-3"/>	<input type="text" value="6043780.64"/>	<input type="text" value="2123315.62"/>	<input type="text" value="5.17"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



**Virgil Chavez Land Surveying**

721 Tuolumne Street

Vallejo, California 94590

(707) 553-2476 • Fax (707) 553-8698

April 20, 2006

Project No.: 2540-04

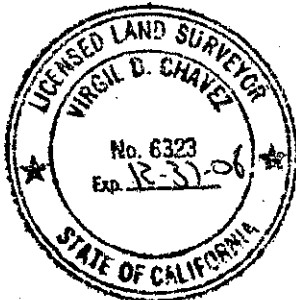
Brent Wheeler  
Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107

Subject: Monitoring Well Survey  
1532 Peralta St.  
Oakland, Ca

Dear Brent:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was completed on April 13, 2006. The benchmark for this survey was a Cal Trans control point no. AB 1041, being a set PK Nail & Cal Trans Shiner near centerline of Goss between Wood & Willow Sts.. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83).  
Benchmark Elevation = 12.03 feet (NGVD 29).

<u>Latitude</u>	<u>Longitude</u>	<u>Northing</u>	<u>Easting</u>	<u>Elev.</u>	<u>Desc.</u>
				10.15	RIM MW-1
37.8124906	-122.2927178	2123268.15	6043826.01	9.87	TOC MW-1
				9.06	RIM MW-2
37.8126227	-122.2926644	2123315.93	6043842.34	8.66	TOC MW-2
				8.54	RIM MW-3
37.8126186	-122.2928779	2123315.62	6043780.64	8.29	TOC MW-3
				9.92	RIM MW-4
37.8125463	-122.2928281	2123289.04	6043794.52	9.74	TOC MW-4
				9.60	RIM MW-5
37.8125721	-122.2927811	2123298.15	6043808.28	9.40	TOC MW-5
				9.29	RIM MW-6
37.8125798	-122.2927377	2123300.74	6043820.86	9.02	TOC MW-6



Sincerely,

*Virgil D. Chavez*  
 \_\_\_\_\_  
 Virgil D. Chavez, PLS 6323



# **ATTACHMENT B**

**LABORATORY CERTIFICATE OF ANALYSIS  
CHAIN OF CUSTODY RECORD  
GEOTRACKER AB2886 UPLOAD CONFIRMATION FORMS**

# Entech Analytical Labs, Inc.

---

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Sami Malaeb  
Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107

Lab Certificate Number: 51551

Issued: 09/29/2006

Global ID: T0600191668

Project Name: 8757

Project Location: 1532 Peralta/Oakland

## Certificate of Analysis - Final Report

On September 26, 2006, samples were received under chain of custody for analysis.

Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test / Comments</u>
Liquid	Electronic Deliverables for Geotracker TPH-Extractable: EPA 3510C / EPA 8015B TPH-Purgeable: GC/MS VOCs: EPA 8260B

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).  
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



Laurie Glantz-Murphy  
Laboratory Director

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107  
Attn: Sami Malaeb

Project Name: 8757  
Project Location: 1532 Peralta/Oakland  
GlobalID: T0600191668

## Certificate of Analysis - Data Report

Samples Received: 09/26/2006  
Sample Collected by: client

Lab # : 51551-001 Sample ID: MW-1

Matrix: Liquid Sample Date: 9/25/2006 3:05 PM

### VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	2.4		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Methyl-t-butyl Ether	31		1.0	1.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butanol (TBA)	17		1.0	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethanol	ND		1.0	100	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	91.4	60 - 130
Dibromofluoromethane	108	60 - 130
Toluene-d8	95.5	60 - 130

Analyzed by: BDhabalia

Reviewed by: MaiChiTu

### TPH-Purgeable: GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	500		1.0	25	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.1	60 - 130
Dibromofluoromethane	112	60 - 130
Toluene-d8	91.3	60 - 130

Analyzed by: BDhabalia

Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	9/26/2006	WD060926A	9/28/2006	WD060926A

230 ppb Motor Oil range organics. No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	49.5	22 - 133

Analyzed by: JHsiang

Reviewed by: MaiChiTu

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107  
Attn: Sami Malaeb

Project Name: 8757  
Project Location: 1532 Peralta/Oakland  
GlobalID: T0600191668

## Certificate of Analysis - Data Report

Samples Received: 09/26/2006  
Sample Collected by: client

Lab # : 51551-002    Sample ID: MW-2    Matrix: Liquid    Sample Date: 9/25/2006    2:45 PM

### VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	0.90		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethanol	ND		1.0	100	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	85.9	60 - 130
Dibromofluoromethane	109	60 - 130
Toluene-d8	102	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Purgeable: GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	25	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	87.6	60 - 130
Dibromofluoromethane	114	60 - 130
Toluene-d8	97.0	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	9/26/2006	WD060926A	9/28/2006	WD060926A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	68.5	22 - 133

Analyzed by: JHsiang  
Reviewed by: MaiChiTu

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107  
Attn: Sami Malaeb

Project Name: 8757  
Project Location: 1532 Peralta/Oakland  
GlobalID: T0600191668

## Certificate of Analysis - Data Report

Samples Received: 09/26/2006  
Sample Collected by: client

Lab # : 51551-003    Sample ID: MW-3    Matrix: Liquid    Sample Date: 9/25/2006    3:55 PM

### VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	1.4		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethanol	ND		1.0	100	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	86.3	60 - 130
Dibromofluoromethane	112	60 - 130
Toluene-d8	97.3	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Purgeable: GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	44		1.0	25	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	88.0	60 - 130
Dibromofluoromethane	117	60 - 130
Toluene-d8	91.9	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	9/26/2006	WD060926A	9/28/2006	WD060926A
200 ppb Motor Oil range organics. No Diesel pattern present.									

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	56.7	22 - 133

Analyzed by: JHsiang  
Reviewed by: MaiChiTu

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107  
Attn: Sami Malaeb

Project Name: 8757  
Project Location: 1532 Peralta/Oakland  
GlobalID: T0600191668

## Certificate of Analysis - Data Report

Samples Received: 09/26/2006  
Sample Collected by: client

Lab # : 51551-004 Sample ID: MW-4

Matrix: Liquid Sample Date: 9/25/2006 3:17 PM

### VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Methyl-t-butyl Ether	12		1.0	1.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butanol (TBA)	34		1.0	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethanol	ND		1.0	100	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	91.5	60 - 130
Dibromofluoromethane	104	60 - 130
Toluene-d8	95.3	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Purgeable: GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	700		1.0	25	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.3	60 - 130
Dibromofluoromethane	108	60 - 130
Toluene-d8	90.7	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	9/26/2006	WD060926A	9/28/2006	WD060926A
970 ppb Motor Oil range organics. No Diesel pattern present.									

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	70.8	22 - 133

Analyzed by: JHsiang  
Reviewed by: MaiChiTu

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107  
Attn: Sami Malaeb

Project Name: 8757  
Project Location: 1532 Peralta/Oakland  
GlobalID: T0600191668

## Certificate of Analysis - Data Report

Samples Received: 09/26/2006  
Sample Collected by: client

Lab # : 51551-005    Sample ID: MW-5    Matrix: Liquid    Sample Date: 9/25/2006    3:33 PM

### VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	160		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Toluene	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethyl Benzene	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Xylenes, Total	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Methyl-t-butyl Ether	1200		20	20	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butyl Ethyl Ether	ND		20	100	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butanol (TBA)	ND		20	200	µg/L	N/A	N/A	9/27/2006	WM7060927
Diisopropyl Ether	ND		20	100	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Amyl Methyl Ether	ND		20	100	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dichloroethane	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dibromoethane (EDB)	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethanol	ND		20	2000	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	82.9	60 - 130
Dibromofluoromethane	104	60 - 130
Toluene-d8	97.6	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Purgeable: GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	2200		20	500	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	84.5	60 - 130
Dibromofluoromethane	108	60 - 130
Toluene-d8	92.8	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	9/26/2006	WD060926A	9/28/2006	WD060926A
930 ppb Motor Oil range organics. No Diesel pattern present.									

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	52.1	22 - 133

Analyzed by: JHsiang  
Reviewed by: MaiChiTu

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Golden Gate Tank Removal  
255 Shipley Street  
San Francisco, CA 94107  
Attn: Sami Malaeb

Project Name: 8757  
Project Location: 1532 Peralta/Oakland  
GlobalID: T0600191668

## Certificate of Analysis - Data Report

Samples Received: 09/26/2006  
Sample Collected by: client

Lab # : 51551-006    Sample ID: MW-6    Matrix: Liquid    Sample Date: 9/25/2006    3:45 PM

### VOCs: EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	430		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Toluene	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethyl Benzene	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Xylenes, Total	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Methyl-t-butyl Ether	920		20	20	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butyl Ethyl Ether	ND		20	100	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Butanol (TBA)	ND		20	200	µg/L	N/A	N/A	9/27/2006	WM7060927
Diisopropyl Ether	ND		20	100	µg/L	N/A	N/A	9/27/2006	WM7060927
tert-Amyl Methyl Ether	ND		20	100	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dichloroethane	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
1,2-Dibromoethane (EDB)	ND		20	10	µg/L	N/A	N/A	9/27/2006	WM7060927
Ethanol	ND		20	2000	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	86.0	60 - 130
Dibromofluoromethane	104	60 - 130
Toluene-d8	100	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Purgeable: GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	3700		20	500	µg/L	N/A	N/A	9/27/2006	WM7060927

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	87.7	60 - 130
Dibromofluoromethane	108	60 - 130
Toluene-d8	94.6	60 - 130

Analyzed by: BDhabalia  
Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	9/26/2006	WD060926A	9/28/2006	WD060926A

1400ppb higher boiling gasoline compounds (C8-C36). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	54.4	22 - 133

Analyzed by: JHsiang  
Reviewed by: MaiChiTu



# Entech Analytical Labs, Inc.

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3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - TPH-Extractable: EPA 3510C / EPA 8015B

QC/Prep Batch ID: WD060926A

Validated by: EricKum - 09/28/06

QC/Prep Date: 9/26/2006

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	53.9	22 - 133

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - VOCs: EPA 8260B

QC Batch ID: WM7060927

Validated by: MaiChiTu - 09/28/06

QC Batch Analysis Date: 9/27/2006

Parameter	Result	DF	PQLR	Units
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	µg/L
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethanol	ND	1	100	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	88.3	60 - 130
Dibromofluoromethane	101	60 - 130
Toluene-d8	97.1	60 - 130

Method Blank - Liquid - TPH-Purgeable: GC/MS

QC Batch ID: WM7060927

Validated by: MaiChiTu - 09/28/06

QC Batch Analysis Date: 9/27/2006

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	25	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	90.0	60 - 130
Dibromofluoromethane	105	60 - 130
Toluene-d8	92.6	60 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - TPH-Extractable: EPA 3510C / EPA 8015B

QC Batch ID: WD060926A

Reviewed by: EricKum - 09/28/06

QC/Prep Date: 9/26/2006

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	748	µg/L	74.8	40 - 138
TPH as Motor Oil	<200	1000	647	µg/L	64.7	40 - 138
<b>Surrogate</b>	<b>% Recovery</b>	<b>Control Limits</b>				
o-Terphenyl	<b>67.0</b>	22 - 133				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	758	µg/L	75.8	1.3	25.0	40 - 138
TPH as Motor Oil	<200	1000	725	µg/L	72.5	11	25.0	40 - 138
<b>Surrogate</b>	<b>% Recovery</b>	<b>Control Limits</b>						
o-Terphenyl	<b>68.6</b>	22 - 133						

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - VOCs: EPA 8260B

QC Batch ID: WM7060927

Reviewed by: MaiChiTu - 09/28/06

QC Batch ID Analysis Date: 9/27/2006

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	22.0	µg/L	110	70 - 130
Benzene	<0.50	20	22.3	µg/L	111	70 - 130
Chlorobenzene	<0.50	20	19.5	µg/L	97.5	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.0	µg/L	84.9	70 - 130
Toluene	<0.50	20	22.7	µg/L	114	70 - 130
Trichloroethene	<0.50	20	20.5	µg/L	103	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95.1	60 - 130
Dibromofluoromethane	101.0	60 - 130
Toluene-d8	96.1	60 - 130

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	21.9	µg/L	110	0.32	25.0	70 - 130
Benzene	<0.50	20	23.3	µg/L	116	4.5	25.0	70 - 130
Chlorobenzene	<0.50	20	20.6	µg/L	103	5.5	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	19.1	µg/L	95.4	12	25.0	70 - 130
Toluene	<0.50	20	23.7	µg/L	119	4.4	25.0	70 - 130
Trichloroethene	<0.50	20	21.4	µg/L	107	4.3	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	96.5	60 - 130
Dibromofluoromethane	101.0	60 - 130
Toluene-d8	97.6	60 - 130

LCS / LCSD - Liquid - TPH-Purgeable: GC/MS

QC Batch ID: WM7060927

Reviewed by: MaiChiTu - 09/28/06

QC Batch ID Analysis Date: 9/27/2006

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	120	µg/L	96.2	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	90.3	60 - 130
Dibromofluoromethane	101.0	60 - 130
Toluene-d8	91.0	60 - 130

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	134	µg/L	107	11	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	91.5	60 - 130
Dibromofluoromethane	101.0	60 - 130
Toluene-d8	93.8	60 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200  
Santa Clara, CA 95054 (408) 588-0201 - Fax

# Chain of Custody / Analysis Request

Attention to: <b>SRAME MALREB</b>	Phone No.: <b>(415) 512-1555</b>	Purchase Order No.:	Invoice to: (If Different)	Phone:		
Company Name: <b>GLTR</b>	Fax No.: <b>(415) 512-0964</b>	Project No.: <b>8757</b>	Company:	Quote No.:		
Mailing Address: <b>285 SHIPLEN ST.</b>	Email Address: <b>DATA@GLTR.COM</b>	Project Name:	Billing Address: (If Different)			
City: <b>SAN FRANCISCO</b>	State: <b>CA</b>	Zip Code: <b>94107</b>	Project Location: <b>1532 BERAJA ST.</b>	City: <b>OAKLAND</b>	State: <b>CA</b>	Zip:

Sampler:	Field Org. Code:	Turn Around Time				No. of Containers	GC/MS Methods								GC Methods				General Chemistry				Remarks					
		<input type="checkbox"/> Same Day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 3 Day		<input checked="" type="checkbox"/> 4 Day	<input type="checkbox"/> 5 Day	<input type="checkbox"/> 10 Day	EPA 8260B	BTEX	5 Oxygenates (MTBE, TBA, ETBA, DIBP, TAME) w/ Si-Gel Cleanup	Lead Scavengers (1,2-DCA & EDB)	Base/Neutral Acid Organics	PAH - 8270C	TPH Extractable: Diesel	Pesticides-8081	TPH as Gas/BTEX	Methanol by 8015M	Arlene	ED	SO4		NO3	NO2	PO4	Metal - Circle Below	Total Dissolved
A. RAHER		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																					
Global ID: <b>TO600191648</b>																												
Order ID: <b>51551</b>																												
Client ID / Field Point	Lab. No.	Date	Time	Matrix	No. of Containers																							
MW-1	001	09.25.06	3:05	W	4		X	X		X																		
MW-2	002	09.25.06	2:45	W	4		X	X		X																		
MW-3	003	09.25.06	3:55	W	4		X	X		X																		
MW-4	004	09.25.06	3:17	W	4		X	X		X																		
MW-5	005	09.25.06	3:33	W	4		X	X		X																		
MW-6	006	09.25.06	3:45	W	4		X	X		X																		

**4 Day TAT**

Relinquished by: <b>[Signature]</b>	Received by: <b>[Signature]</b>	Date: <b>9/26/06</b>	Time: <b>0844</b>	Special Instructions or Comments  Metals: Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn, Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Ti, Sn, Tl, Zn, V, W, Zr	<input type="checkbox"/> EDD Report		
Relinquished by: <b>[Signature]</b>	Received by: <b>[Signature]</b>	Date: <b>9/26/06</b>	Time: <b>1053</b>		<input checked="" type="checkbox"/> EDF Report	<input type="checkbox"/> Plating	
Relinquished by:	Received by:	Date:	Time:		<input type="checkbox"/> LUFT-5	<input type="checkbox"/> RCRA-8	<input type="checkbox"/> PPM-13

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**Confirmation Number:** 4705820441  
**Date/Time of Submittal:** 12/12/2006 8:43:57 AM  
**Facility Global ID:** T0600191668  
**Facility Name:** DR OROBO OSAGIE  
**Submittal Title:** 51551 - GW Analytical Data (09/25/06)  
**Submittal Type:** GW Monitoring Report

[Click here to view the detections report for this upload.](#)

<b>DR OROBO OSAGIE</b> 1532 PERALTA OAKLAND, CA 94607	<b>Regional Board</b> SAN FRANCISCO BAY RWQCB (REGION 2) - (CCM) <b>Local Agency (lead agency) - Case #: RO0000117</b> ALAMEDA COUNTY LOP - (BC)
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<b>CONF #</b>	<b>TITLE</b>	<b>QUARTER</b>
4705820441	51551 - GW Analytical Data (09/25/06)	Q3 2006
<b>SUBMITTED BY</b>	<b>SUBMIT DATE</b>	<b>STATUS</b>
Brent Wheeler	12/12/2006	PENDING REVIEW

**SAMPLE DETECTIONS REPORT**

# FIELD POINTS SAMPLED	6
# FIELD POINTS WITH DETECTIONS	6
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	4
SAMPLE MATRIX TYPES	WATER

**METHOD QA/QC REPORT**

METHODS USED	8260TPH,CATPH-D,SW8260B
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- CATPH-D REQUIRES TPHC28C40 TO BE TESTED	
- CATPH-D REQUIRES TPHC10C28 TO BE TESTED	
- SW8260B REQUIRES EDB TO BE TESTED	
LAB NOTE DATA QUALIFIERS	N

**QA/QC FOR 8021/8260 SERIES SAMPLES**

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

**WATER SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
---	-----

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPD L</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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(9/25/06)

**Submittal Date/Time:** 12/12/2006 8:47:14 AM

**Confirmation  
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