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***Work Plan  
for  
Additional Site Characterization  
and  
Report of Well Survey  
for  
2942 San Pablo Avenue  
Oakland, California***

***Performed For:***

Mr. James Chung  
San Pablo Auto Body  
2924 San Pablo Avenue  
Oakland, CA 94608

***Prepared By:***

PIERS Environmental Services, Inc.  
1330 S. Bascom Avenue, Suite F  
San Jose, CA 95128

**March 2006**

**Project: 06043**

March 27, 2006

**RECEIVED**

*By loprojectop at 9:05 am, Apr 13, 2006*

Mr. Jerry Wickham  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**RE: Work Plan for Additional Site Characterization  
and Report of Well Survey**  
2942 San Pablo Avenue  
Oakland, CA

Dear Mr. Wickham:

This work plan and well survey were prepared and submitted in response to a letter from Mr. Jerry Wickham of Alameda County Environmental Health Services (ACEH) dated February 8, 2006. PIERS Environmental Services Inc. (PIERS) has prepared this work plan at the above-referenced site to propose additional investigative work to characterize the vertical and lateral extent of volatile organic compounds (VOCs), particularly trichloroethene (TCE) and its breakdown products, and metals and cyanide, and to gather necessary information to plan remedial measures. Also, the results of a well survey are included.

The proposed scope of work includes 1) obtaining drilling permits from the Alameda County Public Works Agency, 2) collecting near surface soil samples and soil vapor samples using a Geoprobe drill rig; 3) installing additional groundwater monitoring wells and collecting soil and grab groundwater samples; 4) submitting the soil, vapor and groundwater samples for chemical analysis; 5) data analysis and interpretation; and 6) preparing a technical report.

The Property owner has a monetary loan from the City of Oakland Community and Economic Development Agency (OCEDA) to pay for site characterization. Following review by the ACEH case worker and finalization of the scope of work, this work plan will also be submitted to the OCEDA.

#### **SITE DESCRIPTION AND BACKGROUND**

The Property is located on the eastern side of San Pablo Avenue, at the intersection with 30<sup>th</sup> Street, in the City of Oakland, Alameda County, California (see Figure 1). All of the previous historical research for the Property and subsequent soil and groundwater sampling are summarized in PIERS' report entitled, "Site Characterization Report for 2942 San Pablo Avenue" dated August 19, 2004.

## **RESPONSE TO FEBRUARY 8, 2006 TECHNICAL COMMENTS, AND PROPOSED WORK**

### **Technical Comment No. 1**

The first technical comment (No. 1) in the ACEH letter of February 8, 2006, states that the elevated concentrations of TCE detected in soil and groundwater at the site may pose a risk to human health through the indoor air vapor intrusion pathway, and that further assessment of the potential for indoor vapor intrusion is required. The comment suggests using soil-gas sampling to further define the extent of TCE in the identified source location at B9, to collect data for an assessment of the risk from indoor air vapor intrusion, and to further define whether an additional TCE source area is present near boring B-10.

### **PIERS Response to Technical Comment No. 1**

Twelve borings, designated as B9B through B9M, were previously completed in close proximity to previous boring B9, and one groundwater monitoring well (MW-1) was installed. The twelve borings were completed using the membrane interface probe (MIP) system. The MIP system included a photo-ionization detector (PID) and an electron capture detector (ECD), which were plumbed to a nitrogen gas-filled line contained within the drilling rods. A special heated drill tip equipped with a membrane interface port and other sensing ports for conductivity was advanced ahead of the drilling rods. The data collected with the MIP system was continuous. The data produced with the MIP system was then used to target areas for soil and groundwater sampling at the same locations using a Geoprobe drill rig. Based on the data collected, PIERS concludes that this area is adequately characterized and this identified source area should be over-excavated to the extent practicable. Therefore, because excavation is proposed, PIERS suggests that further delineation using soil-vapor sampling for additional delineation is not warranted in this area, and that the soil-vapor sampling needed to assess the risk of vapor intrusion should be completed during and after the excavation work, prior to any construction activities. It is possible that remedial measures such as a vapor barrier will be required as part of the construction. It is anticipated that the excavation work would proceed in an iterative manner based on the results of confirmation sampling of the excavation sidewalls and bottom.

At B10B, the analytical results of soil samples collected from 1.5 feet, 3 feet, 6 feet and 9 feet below grade indicated concentrations of between 0.25 and 0.54 ppm, which were below the ESLs, except at 9 feet (0.54 ppm). These results did not indicate a contaminant source in soil. The grab groundwater sample, collected in September 2003, indicated a concentration of TCE of 2,400 ppb, somewhat higher than would be expected. Following drilling and opening a hydropunch screen interval at a depth of between 28 and 32 feet, sufficient water to collect a sample had not entered the borehole after one hour. After retracting the rods and installing casing to 28.9 feet, a groundwater sample was successfully collected six hours later, when groundwater elevation had stabilized at about 26.7 feet. Based on the conditions during sample collection, the sample would not be considered representative of groundwater flow conditions, and the contaminant concentrations would likely be higher than those encountered in a monitoring well.

Additional monitoring wells are proposed which will allow further evaluation of the groundwater flow direction and gradient, including a well at B10B (Technical Comment No. 2). To further delineate groundwater conditions and to determine whether B10B represents a separate source, PIERS also proposes two additional hydropunch borings (B18 and B19) at the locations shown on Figure 2. The borings would be completed using the methodology previously used for hydropunch borings at the Property. Additional delineation in the vicinity of B10B by soil gas vapor sampling could be reconsidered after installation of the wells and borings and review of the generated data.

### **Technical Comment No. 2**

Technical Comment No. 2 notes that the apparent hydraulic gradient of 0.31 feet per foot is significantly higher than would be expected, and evaluation of the apparent gradient and flow direction is requested with respect to the regional flow direction and contaminant distribution. In addition, an evaluation of whether well MW-2 is installed within a separate water-bearing zone is requested. It is also noted that 2,400 ppb of TCE was detected in a grab sample obtained at B10B, in the apparent cross-gradient direction from a source at B9. Plans to better define the hydraulic gradient are requested.

### **PIERS Response to Technical Comment No. 2**

The apparent hydraulic gradient in the last monitoring event (0.31 feet per foot), which has been measured over four events at approximately 0.03 feet per foot, is an order of magnitude higher than typical. Well MW-1 is screened from approximately 33 to 37 feet below grade, well MW-2 is screened from approximately 30 to 34 feet below grade, and well MW-3 is screened from approximately 32 to 36 feet below grade. Converting these to elevations, the well screen in MW-2 is 1.38 feet higher than in MW-1 and 0.91 feet higher than in MW-3. However, based on the lithologic information obtained during the MIP and Geoprobe sampling, and as depicted on the cross-sections, all three well screens appear to be within or near the same water-bearing zone. Based on the monitoring data, the difference that creates the unusually high gradient appears to be between MW-1 and the other two wells. The elevations of groundwater in MW-1 on the last event (May 5, 2005), for example, is 3.12 feet higher than in MW-2, and 2.03 feet higher than in MW-3. There is no obvious explanation based on lithology or well construction for this condition.

The direction of groundwater flow regionally would be expected to be to the southwest. The distribution of contamination suggests a northwesterly flow. To better evaluate both the hydraulic gradient and the direction of flow and conditions in the vicinity of B10B, (and as well MW-1 will likely be destroyed during proposed excavation), PIERS proposes the installation of two additional monitoring wells. One well would be located near previous hydropunch boring B12, which was completed in September 2003. The grab water sample collected from this boring indicated a concentration of TCE of 1,100 ppb. The well (MW4) proposed for the vicinity of B12 would be continuously cored to the total depth until the first permeable water-bearing zone is identified (about 37 feet below grade), as there is no lithologic data at that point. The well would then be constructed similarly to the existing wells.

The other well would be installed near previous boring B10B, as discussed under Technical Comment No. 1. This boring was continuously cored to 12 feet below grade. PIERS proposes continuously coring a boring to about 37 feet below grade, identifying the first permeable water zone, and then constructing a well generally similar to the existing wells.

Well MW-1 will continue to be sampled as a source well, and the groundwater levels reevaluated with the new data from the proposed wells.

### **Technical Comment No. 3**

Technical Comment No. 3 notes that TCE was detected at concentrations of 3,780 and 2,500 ppb, respectively, in previous borings B-5 and B-7 at shallow depths, whereas concentrations are an order of magnitude lower in well MW-2, which is screened from 30 to 34 feet below grade. An evaluation of whether groundwater monitoring is needed in shallow groundwater as well as the deeper intervals currently monitored in the three wells is requested.

### **PIERS Response to Technical Comment No. 3**

The samples from the monitoring wells, considered more representative of groundwater conditions, generally show an order of magnitude lesser concentrations than grab groundwater samples. The construction of the wells, with approximately four feet of screen at the total depth, was designed after consultation with Mr. Barney Chan of ACEH to minimize any potential for cross-contamination between zones. All of the previous investigative work at the Property indicates that the first water-bearing zone occurs under confined or semi-confined conditions, with generally poor recharge. Boring B-5 was cored to 20 feet below grade and water was slow to collect in the borehole at about that depth, where a sample was collected on May 8, 2003. On August 20, 2003, boring B-7 was cored to 20 feet below grade; however, no water collected, and the boring was extended to a depth of 32 feet below grade. When installing the PVC casing, the hole closed below 24 feet below grade. A single VOA of groundwater was collected after several hours. Based on these findings, and considering that the static water table is between about 13 and 16 feet below grade, these sample points do not appear to represent a different water-bearing zone, but the slow recharge of the first confined/semiconfined zone, and there is no shallower groundwater zone to sample.

### **Technical Comment No. 4**

Technical Comment No. 4 requests that after assessment of the hydraulic gradient, plume delineation, and the need for additional wells, that a groundwater monitoring program be proposed.

### **PIERS Response to Technical Comment No. 4**

After installation of the additional proposed wells, PIERS recommends quarterly monitoring and sampling using the methodology in PIERS' previous reports. Based on the results of that data, the anomalous hydraulic gradient and the discrepancy between the measured direction of flow and the apparent contaminant distribution (west versus northwest) and the regional flow (southwest) can be better interpreted, and additional recommendations made, as warranted.

As was done previously, the samples will be analyzed for volatile organic compounds (VOC) by EPA Method 8260. In addition, the samples will be analyzed for Cam 17 metals, hexavalent chromium, and cyanide. PIERS proposes to no longer analyze samples for TPH as gasoline by EPA method 8015- Modified, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020.

#### **Technical Comment No. 5**

Technical Comment No. 5 requests that a half-mile well survey be completed using data from the Alameda County Public Works Agency (ACPWA) and the State Department of Water Resources.

#### **PIERS Response to Technical Comment No. 5**

PIERS obtained data from the ACPWA for a circular area representing the down-gradient to cross-gradient portion of a half-mile radius from the Property. This area included portions of T1S, 4W Sections 22, 23, 26 and 27, as shown on Figure 3. The direction of ground water flow at the Property, as discussed under Technical Comment No. 2, has been measured towards the west, although the elevations in one well (MW-1) create an apparent gradient an order of magnitude higher than expected. The distribution of contamination suggests a northwesterly flow direction. The regional flow direction would be expected to be towards the southwest.

The majority of the identified wells were monitoring wells associated with LUST cases. Other wells are cathodic protection wells (four), or abandoned wells (two). No water production wells were identified. The locations of the wells are shown on Figure 3, and the well details are summarized in Table 1. Certain well details were not included in the data obtained from ACPWA for wells in Section 26; however, these wells are monitoring wells or cathodic protection wells that are either well distant from the Property, or associated with the site at 959 E. 28<sup>th</sup> St, where the details of other monitoring wells are known.

The locations of the wells were located to the degree of accuracy possible on the 7.5 minute quadrangle, and are approximate. The nearest monitoring wells are located at 3032 Market Street, about half-block north of the Property. These wells appear to be cross-gradient. Thirty-six monitoring wells are located at 958 E. 28<sup>th</sup> Street, approximately 700 feet to the west-southwest. To better determine the location of these wells, to obtain information on the hydrogeologic conditions, and to determine if the wells have ever been sampled for VOCs, PIERS proposes to review the file for the 958 E. 28<sup>th</sup> St. site. The results of the file review will be summarized in the report of the proposed investigation work.

Except for these wells, the next closest down-gradient monitoring wells are approximately 1,700 feet from the Property. Cathodic protection wells are located between approximately 1,200 and 1,500 feet to the west to southwest (down-gradient) of the Property, along Linden Street between 26<sup>th</sup> and 29<sup>th</sup> Streets.

According to the ACPWA designation, abandoned wells are wells that are not being used, but that have not yet been destroyed under permit. One abandoned well is located at 2,736 Magnolia Street, approximately 2,100 feet to the west. This well is considered too distant to be a potential receptor.

Another abandoned well is located at 990 28<sup>th</sup> Street, approximately 900 feet to the west-southwest, close to the 958 E. 28<sup>th</sup> Street site. It is possible that additional information on this well can be obtained during the file review proposed above.

#### **Technical Comment No. 6**

Technical Comment No. 6 notes that only two samples (B-9 and B-10 at 1.5 feet below grade) were analyzed for metals and cyanide, and additional soil sampling for these analytes is requested.

#### **PIERS Response to Technical Comment No. 6**

It should be noted that a significant portion of the old plating works is paved with concrete. No drains, sumps, or subsurface features within it have been identified, and no staining has been observed. To further evaluate the potential for metals and cyanide in soil, PIERS proposes an iterative process where composite samples are first analyzed, and whenever concentrations are above the Environmental Screening Levels (ESL), the discrete samples would be analyzed. Twelve surficial samples would be collected at the Property at approximately 0.5 feet below grade in unpaved areas in the vicinity of the former plating works. Because a significant portion of the old plating work is paved, it is anticipated that twelve samples will adequately characterize this area. Because of the density of the surficial soils, a Geoprobe drill rig would be used for this work and the work would be completed on the same mobilization as the soil-vapor sampling. The samples would be composited for analyses at the laboratory into three, four-part samples. If any analyte is present above the ESL, the discrete samples for the composite sample would then be analyzed for that compound.

#### **Technical Comment No. 7**

Technical Comment No. 7 requests cleanup of TCE in soil and groundwater within the source area.

#### **PIERS Response to Technical Comment No. 7**

As requested, remedial alternatives will be evaluated and a proposed cleanup alternative will be presented in a Corrective Action Plan following the implementation of this work plan.

#### **GENERAL**

Prior to implementation, approval of this work plan will be obtained from the RWQCB and Mr. Mark Gomez of the OCEDA. Prior to drilling, a health and safety plan will be prepared. The boring locations will be marked with white paint and Underground Service Alert will be contacted. Drilling permits will be obtained from the Alameda County Department of Public Works.

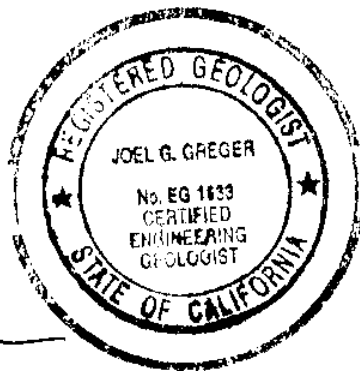
Any sampling tools used on site will be decontaminated prior to use. All borings will be sealed using neat cement grout. Any soil or water generated will be stored on site in pails or 55-gallon drums prior characterization for proper disposal.

The results of this work would be summarized in a technical report. The report will be submitted to the ACEH and to the OCEDA.

With regards to the request for a Corrective Action Plan (CAP) within 120 days of approval of this work plan, PIERS would like to point out that the owner is obtaining funds from the OCEDA, and their approval and financing is needed prior to implementation of the work plan. This process might impact PIERS' ability to meet the schedule requested by the ACEH, in which case a revised schedule would be requested.

If you have any questions regarding this work plan, please do not hesitate to contact our office.

Sincerely,  
PIERS Environmental Services, Inc.



Joel G. Greger  
Senior Project Manager  
CEG # EG1633, REA # 07079

Kay Pannell  
Chief Operations Officer  
REP #5800, REA-II #20236

Attachments

- Figure 1 – Property Vicinity Map
- Figure 2 – Proposed Wells and Borings
- Figure 3 – Results of Well Survey
- Table 1 – Well Survey Results

cc: Mr. James Chung, owner



## **ATTACHMENTS**

## **FIGURES**

**IDENTIFIED HAZARDOUS MATERIALS SITES  
RADIUS REPORT  
Site Vicinity Map**



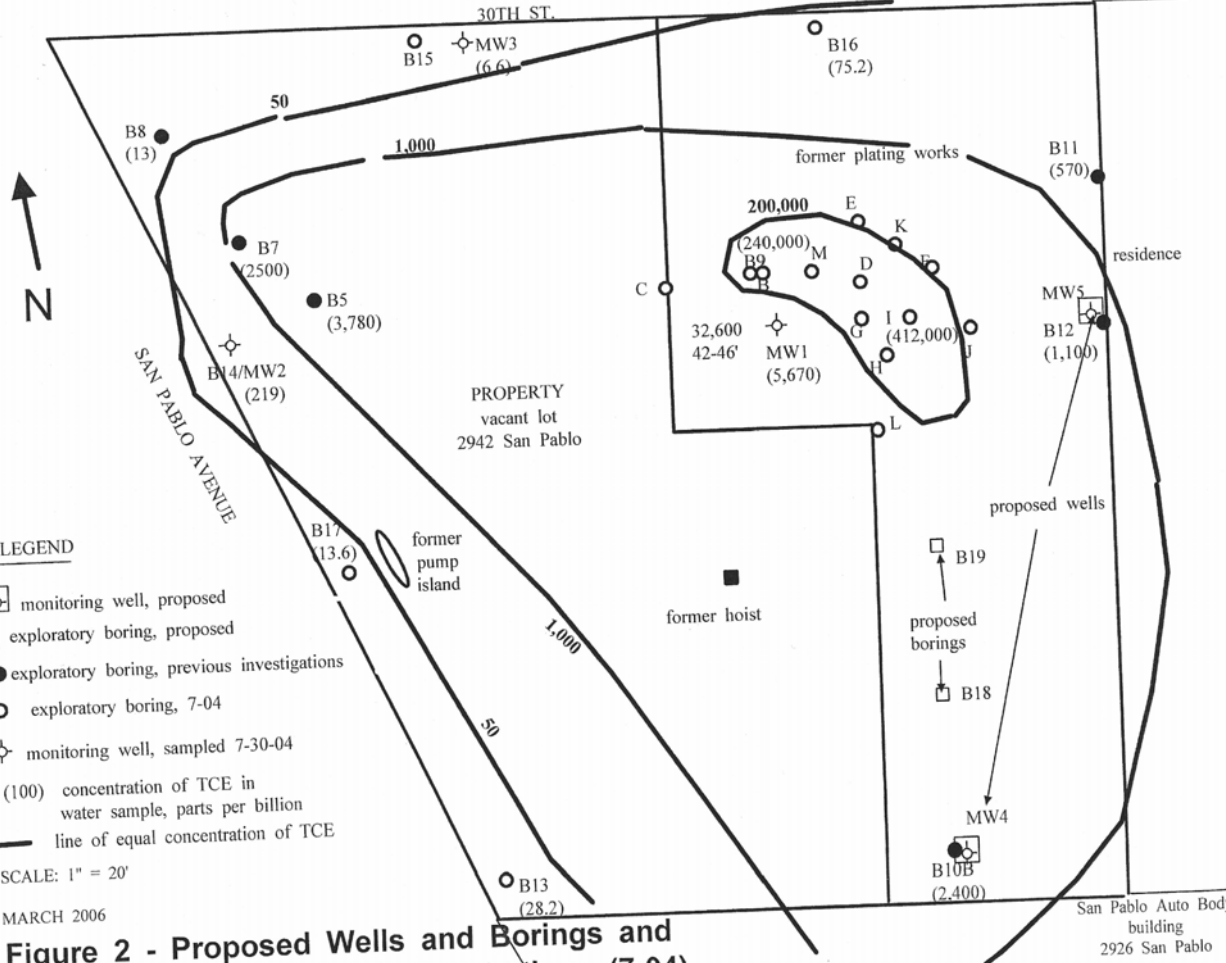
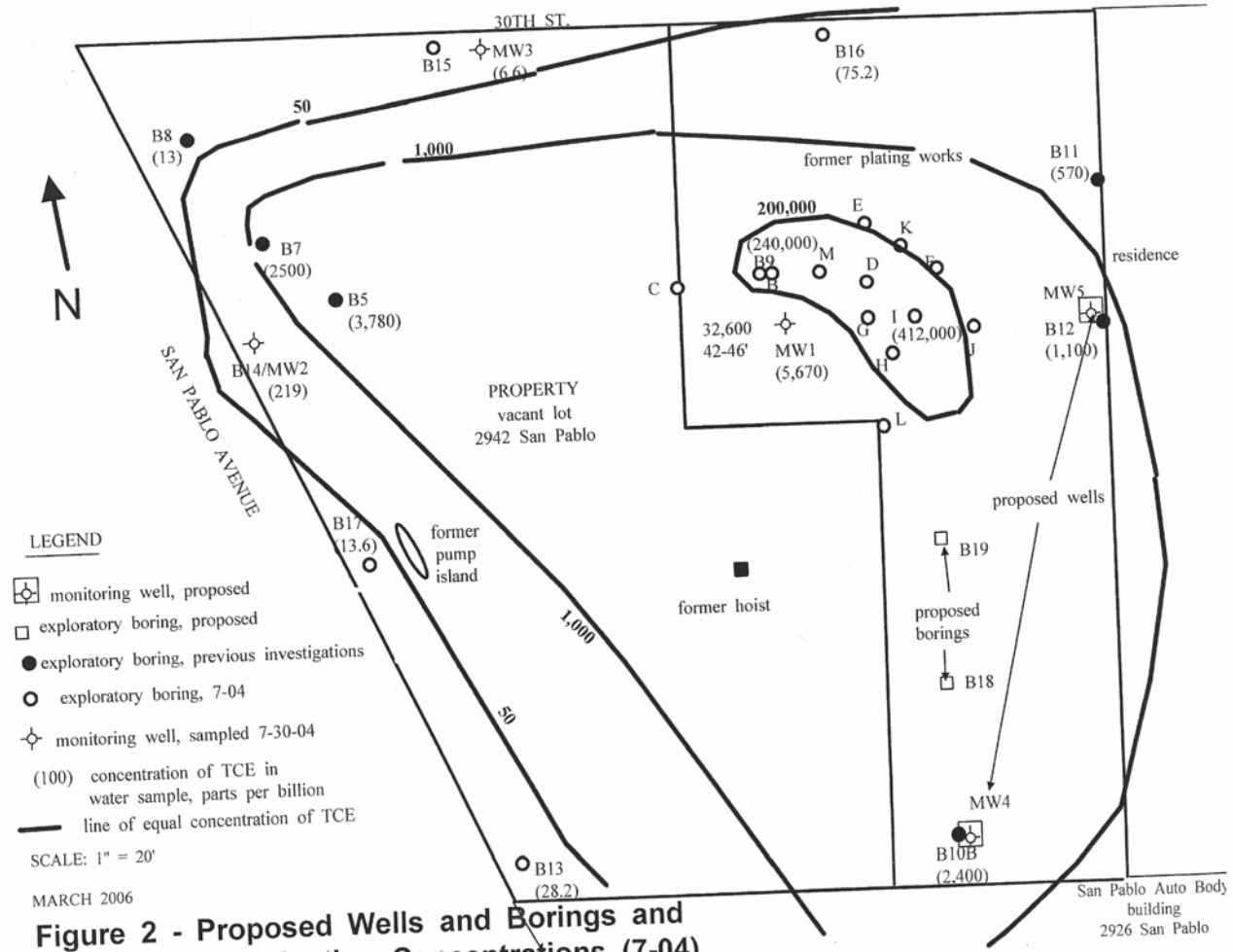
- MAJOR ROADS
- ROADS
- FREeways
- RAILROAD TRACKS
- PARKS
- PLACES, SCHOOLS
- ★ SUBJECT PROPERTY

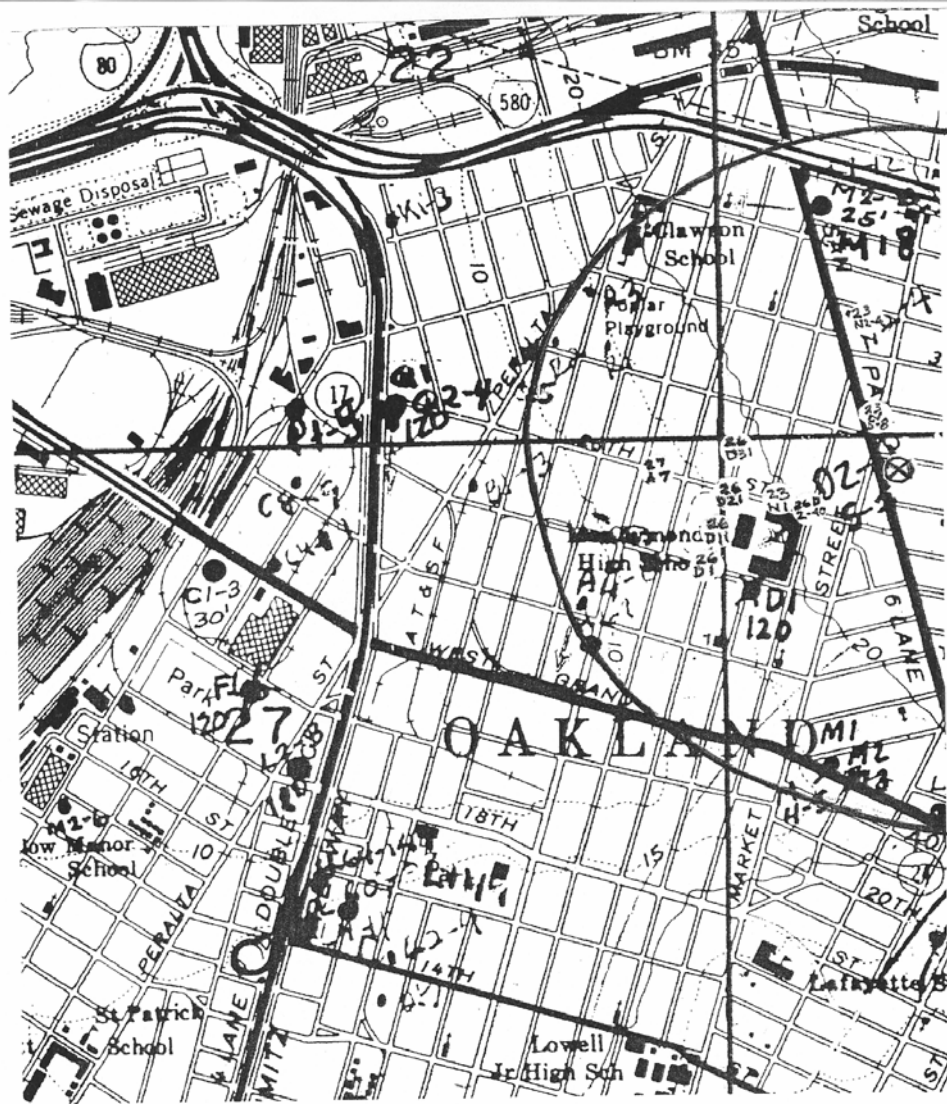
**FIGURE 1  
PROPERTY VICINITY MAP**

2926-2942 SAN PABLO AVENUE  
OAKLAND, CALIFORNIA

NOT TO SCALE  
MAY 2002

- 3000000 - 100 1230 S. BLOSSOM AVE. SUITE E SAN JOSE CA 95128





**FIGURE 3**  
**LOCATIONS OF WELLS**

2926-2942 SAN PABLO AVENUE  
OAKLAND, CALIFORNIA  
(U. S. G. S. 7.5' Quadrangle "Oakland West")

SCALE: 1" = 1000'  
MARCH 2006

PIERS ENVIRONMENTAL SERVICES, INC. 1330 S. BASCOM AVE., SUITE F, SAN JOSE, CA 95128  
PHONE: 408-559-1248 FAX: 408-559-1224 WWW.PIERSES.COM

## **TABLES**

TABLE 1  
WELL SURVEY RESULTS - SECTION 26  
2942 San Pablo Avenue, Oakland

Well No.	Address	Owner	Drill Date	Elevation	Total Depth	Water Depth	Diameter	Use	Distance From Property
1S/4W 26D 1	26 & LINDEN ST	PACIFIC GAS & ELECTRIC	Dec-76	0	120	0	0	CAT	1,500 SW
1S/4W 26D 2	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89	0	32	22	4	MON	700 WSW
1S/4W 26D 3	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89	0	28	22	4	MON	700 WSW
1S/4W 26D 4	958 EAST 28TH STREET	ARATEX SERVICES INC.	Dec-88	0	36	27	4	MON	700 WSW
1S/4W 26D 5	958 28th Street	Aratex Servisco	3/90	0	25	22	2	MON	700 WSW
1S/4W 26D 6	958 28th Street	Aratex Servisco	3/90	0	30	17	4	MON	700 WSW
1S/4W 26D 7	958 28th Street	Aratex Servisco	2/90	0	30	18	4	MON	700 WSW
1S/4W 26D 8	958 28th St	AraTex Service Inc.MW-4A	7/91	0	27	13	4	MON	700 WSW
1S/4W 26D 9	958 28th St	AraTex Service Inc.MW7	7/91	0	30	14	4	MON	700 WSW
1S/4W 26D10	958 28th St	Aramark Uniform Services,	2/94	0	25	17	2	MON	700 WSW
1S/4W 26E 2	889 W. Grand Ave	ARCO Products A-1	3/92	0	30	11	3	MON	2,200 SSW
1S/4W 26E 3	889 W. Grand Ave	ARCO Products A-2	3/92	0	27	12	3	MON	2,200 SSW
1S/4W 26E 4	889 W. Grand Ave	ARCO Products A-3	4/92	0	30	12	3	MON	2,200 SSW
1S/4W 26E 5	889 W. Grand Ave	ARCO Products A-4	4/92	0	30	11	3	MON	2,200 SSW
1S/4W 26E 6	889 W. Grand Ave	ARCO Products AR-1	4/92	0	30	11	6	MON	2,200 SSW
1S/4W 26E 7	2400 Filbert St	Cal West MW-1	Oct-91	0	20	9	2	MON	2,000 WSW
1S/4W 26E 8	889 W. Grand Ave	ARCO Products AR-1	6/92	0	29	15	4	MON	2,200 SSW
1S/4W 26E 9	889 W. Grand Ave	ARCO Products AV-1	6/92	0	14	12	2	MON	2,200 SSW
1S/4W 26D 11	27 & LINDEN ST	PACIFIC GAS & ELECTRIC	Dec-76					CAT	1,400 W
1S/4W 26D 12	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89					MON	700 WSW
1S/4W 26D 13	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89					MON	700 WSW
1S/4W 26D 14	958 EAST 28TH STREET	ARATEX SERVICES INC.	Dec-88					MON	700 WSW
1S/4W 26D 15	958 28th Street	Aratex Servisco	3/90					MON	700 WSW
1S/4W 26D 16	958 28th Street	Aratex Servisco	3/90					MON	700 WSW
1S/4W 26D 17	958 28th Street	Aratex Servisco	2/91					MON	700 WSW
1S/4W 26D 18	958 28th St	AraTex Service Inc.MW-4A	7/91					MON	700 WSW
1S/4W 26D 19	958 28th St	AraTex Service Inc.MW8	7/91					MON	700 WSW
1S/4W 26D 20	958 28th St	Aramark Uniform Services,	2/95					MON	700 WSW
1S/4W 26E 11	889 W. Grand Ave	ARCO Products A-2	3/92					MON	2,200 SSW
1S/4W 26E 12	889 W. Grand Ave	ARCO Products A-5	3/92					MON	2,200 SSW
1S/4W 26E 13	889 W. Grand Ave	ARCO Products A-6	4/92					MON	2,200 SSW
1S/4W 26E 14	889 W. Grand Ave	ARCO Products A-7	4/92					MON	2,200 SSW
1S/4W 26E 15	889 W. Grand Ave	ARCO Products AR-2	4/92					MON	2,200 SSW
1S/4W 26E 16	2401 Filbert St	Cal West MW-2	Nov-91					MON	2,000 WSW
1S/4W 26E 17	889 W. Grand Ave	ARCO Products AR-2	6/92					MON	2,200 SSW
1S/4W 26E 18	889 W. Grand Ave	ARCO Products AV-2	6/92					MON	2,200 SSW
1S/4W 26D 21	28 & LINDEN ST	PACIFIC GAS & ELECTRIC	Dec-76					CAT	1,200 W
1S/4W 26D 22	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89					MON	700 WSW
1S/4W 26D 23	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89					MON	700 WSW
1S/4W 26D 24	958 EAST 28TH STREET	ARATEX SERVICES INC.	Dec-88					MON	700 WSW
1S/4W 26D 25	958 28th Street	Aratex Servisco	3/90					MON	700 WSW
1S/4W 26D 26	958 28th Street	Aratex Servisco	3/90					MON	700 WSW
1S/4W 26D 27	958 28th Street	Aratex Servisco	2/92					MON	700 WSW
1S/4W 26D 28	958 28th St	AraTex Service Inc.MW-4A	7/91					MON	700 WSW
1S/4W 26D 29	958 28th St	AraTex Service Inc.MW9	7/91					MON	700 WSW
1S/4W 26D 30	958 28th St	Aramark Uniform Services,	2/96					MON	700 WSW
1S/4W 26E 20	889 W. Grand Ave	ARCO Products A-3	3/92					MON	2,200 SSW
1S/4W 26E 21	889 W. Grand Ave	ARCO Products A-8	3/92					MON	2,200 SSW
1S/4W 26E 22	889 W. Grand Ave	ARCO Products A-9	4/92					MON	2,200 SSW
1S/4W 26E 23	889 W. Grand Ave	ARCO Products A-10	4/92					MON	2,200 SSW
1S/4W 26E 24	889 W. Grand Ave	ARCO Products AR-3	4/92					MON	2,200 SSW
1S/4W 26E 25	2402 Filbert St	Cal West MW-3	Dec-91					MON	2,000 SW
1S/4W 26E 26	889 W. Grand Ave	ARCO Products AR-3	6/92					MON	2,200 SSW
1S/4W 26E 27	889 W. Grand Ave	ARCO Products AV-3	6/92					MON	2,200 SSW
1S/4W 26D 31	29 & LINDEN ST	PACIFIC GAS & ELECTRIC	Dec-76					CAT	1,200 W
1S/4W 26D 32	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89					MON	700 WSW
1S/4W 26D 33	958 EAST 28TH STREET	ARATEX SERVICES INC.	Feb-89					MON	700 WSW
1S/4W 26D 34	958 EAST 28TH STREET	ARATEX SERVICES INC.	Dec-88					MON	700 WSW
1S/4W 26D 35	958 28th Street	Aratex Servisco	3/90					MON	700 WSW
1S/4W 26D 36	958 28th Street	Aratex Servisco	3/90					MON	700 WSW
1S/4W 26D 37	958 28th Street	Aratex Servisco	2/93					MON	700 WSW
1S/4W 26D 38	958 28th St	AraTex Service Inc.MW-4A	7/91					MON	700 WSW
1S/4W 26D 39	958 28th St	AraTex Service Inc.MW10	7/91					MON	700 WSW
1S/4W 26D 40	958 28th St	Aramark Uniform Services,	2/97					MON	700 WSW

TABLE 1 - CONTINUED  
WELL SURVEY RESULTS - SECTIONS 22, 23, AND 27  
2942 San Pablo Avenue, Oakland

Well No.	Address		Drill Date	Elevation	Total Depth	Water Depth	Use	Distance From Property
1S/4W 22J 2	Union St & 32nd St	Clawson School	5/91	0	8	2	MON	2,500 NW
1S/4W 22J 3	Union St & 32nd St	Clawson School	8/89	0	19	2	MON	2,500 NW
1S/4W 22J 4	Union St & 32nd St	Clawson School	6/91	98	14	2	MON	2,500 NW
1S/4W 22J2	3315 Magnolia St	Clawson School MW-1	6/91	98	10	2	MON	2,500 NW
1S/4W 22J3	3315 Magnolia St	Clawson School MW-2	6/91	98	12	2	MON	2,500 NW
1S/4W 22J4	3315 Magnolia St	Clawson School MW-3	6/91	100	12	2	MON	2,500 NW
1S/4W 22R 2	2730 PERALTA ST	CUSTOM ALLOY SCRAP SALES	Oct-90	0	10	4	MON	2,600 NW
1S/4W 22R 3	2730 PERALTA ST	CUSTOM ALLOY SCRAP SALES	Oct-90	0	12	4	MON	2,600 NW
1S/4W 23M 2	3400 SAN PABLO AVE	ARCO PETROLEUM	Jul-86	0	10	2	TES	2,000 NW
1S/4W 23M 3	3400 SAN PABLO AVE	ARCO PETROLEUM	Jul-86	0	10	2	TES	2,000 NW
1S/4W 23M 4	3400 SAN PABLO AVE	ARCO PETROLEUM	Jul-86	0	10	2	TES	2,000 NW
1S/4W 23M 5	3400 SAN PABLO AVE	THRIFTY OIL	Nov-86	0	6	4	MON	2,000 NW
1S/4W 23M 6	3400 SAN PABLO AVE	THRIFTY OIL	Nov-86	0	8	2	MON	2,000 NW
1S/4W 23M 7	3400 SAN PABLO AVE	THRIFTY OIL	Nov-86	0	9	2	MON	2,000 NW
1S/4W 23M 8	3400 SAN PABLO AVE	THRIFTY OIL	Nov-86	0	8	4	MON	2,000 NW
1S/4W 23M 9	3420 SAN PABLO AVE	SHELL OIL CO.	Apr-89	0	6	4	MON	2,000 NW
1S/4W 23M10	3420 SAN PABLO AVE	SHELL OIL CO.	Apr-89	0	6	4	MON	2,000 NW
1S/4W 23M11	3420 SAN PABLO AVE	SHELL OIL CO.	Apr-89	0	6	4	MON	2,000 NW
1S/4W 23M12	3420 SAN PABLO AVE	SHELL OIL CO.	Apr-89	0	6	4	MON	2,000 NW
1S/4W 23M13	3420 San Pablo Avenue	Shell Oil Company	1/90	21	8	4	MON	2,000 NW
1S/4W 23M14	3420 San Pablo Avenue	Shell Oil Company	1/90	22	8	4	MON	2,000 NW
1S/4W 23M15	3420 San Pablo Avenue	Shell Oil Company	1/90	21	9	4	MON	2,000 NW
1S/4W 23M16	3420 San Pablo Avenue	Shell Oil Company	1/90	21	7	4	MON	2,000 NW
1S/4W 23M17	34200 San Pablo Avenue	Shell Oil Company	1/90	21	9	4	MON	2,000 NW
1S/4W 23M18	3400 San Pablo Avenue	Thrifty Oil Company	Oct-89	0	9	6	MON	2,000 NW
1S/4W 23M19	3420 San Pablo Ave	Shell Oil Co. MW10	Oct-91	0	9	4	TES	2,000 NW
1S/4W 23M20	3420 San Pablo Ave	Shell Oil Co. MW11	Oct-91	0	14	4	TES	2,000 NW
1S/4W 23M21	34th St. & Linden St.	Dougco Metal Finish. MW1	4/93	0	0	4	MON	2,000 NW
1S/4W 23M22	34th St. & Linden St.	Dougco Metal Finish. MW2	4/93	0	0	4	MON	2,000 NW
1S/4W 23M23	34th St. & Linden St.	Dougco Metal Finish. MW3	4/93	0	0	4	MON	2,000 NW
1S/4W 23N 1	990 28 ST	OAKLAND TOWEL CO.	/27	0	0	8	ABN	900 WSW
1S/4W 23N 2	936 Brockhurst Street	Loomis Armored, Inc.	8/90	0	14	2	MON	1,150 N
1S/4W 23N 3	936 Brockhurst Street	Loomis Armored, Inc.	8/90	28	16	4	MON	1,150 N
1S/4W 23N 4	936 Brockhurst Street	Loomis Armored, Inc.	8/90	29	15	4	MON	1,150 N
1S/4W 23N 5	3032 Market St	C.H.O.C. Inc	3/95	0	12	2	MON	400 N
1S/4W 23N 6	3032 Market St	WSB Electric	8/94	0	14	2	MON	400 N
1S/4W 23N 7	3032 Market St	WSB Electric	8/94	0	14	2	MON	400 N
1S/4W 23N 8	3032 Market St	WSB Electric	8/94	0	10	2	MON	400 N
1S/4W 27A 1	2736 MAGNOLIA	HOLLY MEAT	/26	0	23	0	ABN	2,100 W
1S/4W 27A 3	1218 24TH ST	TIM WILLIAMS	Mar-89	0	11	2	MON	2,500 SW
1S/4W 27A 4	1218 24th Street	Nrthwstrn Venetian Blind	3/89	0	11	2	MON	2,500 SW
1S/4W 27A 5	1218 24th Street	Nrthwstrn Venetian Blind	Oct-89	0	14	2	MON	2,500 SW
1S/4W 27A 6	1218 24th Street	Nrthwstrn Venetian Blind	Oct-89	0	14	2	MON	2,500 SW
1S/4W 27A 7	1229 28th St	Albert Plute	5/96	0	7	2	MON	1,750 W
1S/4W 27A 8	2528 Adeline St		3/95	11	12	2	MON	2,200 WSW
1S/4W 27A 9	2528 Adeline St		3/95	9	7	2	MON	2,200 WSW
1S/4W 27A10	2528 Adeline St		3/95	10	0	2	MON	2,200 WSW
1S/4W 27H	2311 ADELINE ST	NED CLYDE CONSTRUCTION	Jan-89	0	10	8	MON	2,500 SW
1S/4W 27H 1	2311 ADELINE ST	NED CLYDE CONSTRUCTION	Jan-89	0	8	8	MON	2,500 SW
1S/4W 27H 2	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	Mar-89	0	0	2	PIE	2,500 SW
1S/4W 27H 3	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	Mar-89	0	0	2	PIE	2,500 SW
1S/4W 27H 4	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	Mar-89	0	0	2	PIE	2,500 SW
1S/4W 27H 5	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	Apr-89	0	7	2	PIE	2,500 SW
1S/4W 27H 6	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	May-89	0	0	2	PIE	2,500 SW
1S/4W 27H 7	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	May-89	0	0	2	PIE	2,500 SW
1S/4W 27H 8	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	May-89	0	0	2	PIE	2,500 SW
1S/4W 27H 9	2311 ADELINE ST.	NED CLYDE CONSTRUCTION	May-89	0	0	2	PIE	2,500 SW
1S/4W 27H10	2311 Adeline St.	Ned Clyde Construction	5/90	0	5	2	MON	2,000 SW
1S/4W 27H11	2240 Filbert St	West Grand Refrigeration	3/96	0	10	2	MON	2,000 SW
1S/4W 27H12	2240 Filbert St	West Grand Refrigeration	3/96	0	11	2	MON	2,000 SW
1S/4W 27H13	2240 Filbert St	Western Investment Real E	9/94	0	12	2	MON	2,000 SW
1S/4W 27H14	2240 Filbert St	Western Investment Real E	9/94	0	15	2	MON	2,000 SW