

R02728 ~~80-2182~~

December 10, 2004
Letter 0358.L1
RGA Job # PRZ10966

Mr. Robert Schultz
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

ENVIRONMENTAL HEALTH
DEC 18 2004
ALAMEDA COUNTY



SUBJECT: SUBSURFACE INVESTIGATION REPORT TRANSMITTAL
1201 12nd Street
Oakland, California

Dear Mr. Schultz:

Per request of Juan Perez, you will find enclosed one copy of RGA's Subsurface Investigation Report (0358.R1) dated November 29, 2004.

Should you have any questions, please do not hesitate to contact us at (510) 547-7771.

Sincerely,
RGA Environmental, Inc.

1201-14th

Dan Fairer for

Karin Schroeter
Project Manager

Paul H. King

Paul H. King
California Registered Geologist # 5901
Expires: 12/31/05

PHK/dkf
0358.L1

November 29, 2004
Report 0358.R1
RGA Job # PRZ10966

Mr. Juan Perez
Perez Construction
3355 Rubing Drive
Oakland, CA 94602

SUBJECT: SUBSURFACE INVESTIGATION REPORT (B1 THROUGH B3)
1201 32nd Street
Oakland, California

Dear Mr. Perez:

RGA Environmental, Inc. (RGA) is pleased to present this report documenting the drilling of three soil borings, designated as B1 through B3, and the collection of soil and groundwater samples from each soil boring at the subject site on November 15, 2004. The boreholes were drilled to evaluate the extent Halogenated Volatile Organic Compounds (HVOCs) in soil and groundwater at the subject site that had been detected at the subject site during a previous subsurface investigation performed by others. A Site Location Map is attached as Figure 1, and a Site Plan showing the drilling locations is attached as Figure 2.

All work was performed under the direct supervision of an appropriately registered professional. This work was performed in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

BACKGROUND

RGA's understanding of previous subsurface investigations at the site is based on review of portions of an undated report titled, "Summary Report - Soil and Groundwater Sampling Conducted as Part of a Property Transaction Screen" prepared by International Geologic of Oakland, California for the subject site. The report discusses historical use of the property and documents the drilling of two soil borings designated as B1 and B2 on June 12, 2000 at the site. The locations of the borings are shown on Figure 2.

Soil samples were retained for laboratory analysis at depths of approximately 15 and 19 feet below the ground surface. Groundwater was reported to have been initially encountered at a depth of approximately 16 feet below the ground surface, and subsequently stabilized at a depth of approximately 11 feet below the ground surface. One



Accepted for Delivery
DEC 15 2004
RGA Environmental Inc.

groundwater sample was also collected from each borehole. All of the soil and groundwater samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 601.

The soil sample results showed that VOCs were not detected in the soil samples from borehole B2. In borehole B1, Trichloroethene (TCE) was detected at a concentration of 17 mg/kg at a depth of 15.5 feet and at a concentration of 12 mg/kg at a depth of 18 feet below the ground surface. TCE was detected in the groundwater samples from B1 and B2 at concentrations of 1,100 mg/L and 0.0088 mg/L, respectively. In addition, perchloroethene (PCE) was detected in the groundwater sample from borehole B2 at a concentration of 0.0049 mg/L.

Based on the results of the June 12, 2000 investigation and a request by Perez Construction to evaluate the extent of HVOCs in soil and groundwater at the site, RGA proposed that three boreholes designated as B3, B4 and B5 be drilled at the property between borings B1 and B2.

FIELD ACTIVITIES

Prior to drilling the boreholes, permit MW04-1133 was obtained from the Alameda County Public Works Agency. In addition, the drilling locations were marked with white paint, Underground Service Alert was notified for underground utility location, and a health and safety plan was prepared.

At the time of investigation, the site consisted of a vacant lot bordered by 32nd Street to the north, Magnolia Street to the east, and buildings to the south and west. The majority of the lot was covered with concrete. However, some portions of the lot consisted of bare earth.

Soil Boring Oversight and Sample Collection

On November 15, 2004 a total of three soil borings, designated as B3, B4, and B5, were drilled to characterize soil and groundwater conditions at the subject site. Boreholes B3 and B4 were continuously cored to a total depth of 19.0 feet and borehole B5 was continuously cored to a total depth of 20.0 feet. The drilling was completed by Vironex, Inc. of San Leandro, California using GeoProbe direct-push technology. Cellulose acetate liners were used in the GeoProbe core barrels to contain the continuous cores.

Subsurface materials were identified and evaluated based on the continuous cores from the boreholes and relative drilling difficulty. The soil from all of the borings was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. All of the soil was evaluated with a 10.3 eV Photoionization Detector (PID) calibrated using a 100 ppm isobutylene standard. No organic vapors were

detected with the PID in any of the boreholes. No petroleum hydrocarbon or solvent odors were identified in any of the boreholes. The locations of the soil borings are shown on the attached Site Plan, Figure 2. Copies of the boring logs are attached with this report.

Soil samples were retained for laboratory analysis from a depth of 5.0 feet in each borehole in the following manner. An approximately six-inch long soil sample from the continuous core was retained in the cellulose acetate tubes by cutting the core barrel sample liner at the depths corresponding to the desired sample interval. The ends of the selected portion of tube were sequentially covered with aluminum foil and plastic endcaps, and the tube was then labeled and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

Groundwater was initially encountered at a depth of 19.0 feet in boring B3, and in borings B4 and B5 at depths of 16.7 and 18.3 feet, respectively. Immediately after water was first encountered and the drilling equipment had been removed from the borehole, the depth to water in boreholes B3, B4 and B5 was measured at 8.0, 16.6, and 6.0 feet below the ground surface, respectively. A one-inch diameter PVC slotted pipe was placed into each borehole after groundwater was encountered for sample collection purposes.

One groundwater grab sample was collected from each borehole using polyethylene tubing and a stainless steel foot valve. No sheen or separate phase layers of petroleum hydrocarbons were observed and no petroleum hydrocarbon or solvent odors were detected in water in any of the boreholes. All water samples were transferred to 1-liter amber bottles and 40-milliliter glass Volatile Organic Analysis (VOA) vials containing hydrochloric acid preservative, which were sealed with Teflon-lined screw caps. The VOAs were overturned and tapped to ensure that air bubbles were not present. The samples were labeled and then placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures were followed for all sample handling.

All drilling equipment was steam cleaned prior to use at the site. All sampling equipment was either new disposable equipment, or was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Following completion of sample collection activities, the boreholes were filled with neat cement grout. Soil generated during drilling was stored in one drum at the site pending characterization and disposal.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene alluvium (Qpa). This alluvium is described as weakly consolidated, slightly weathered, poorly sorted, irregularly interbedded clay, silt, sand, and gravel.

The subsurface materials encountered in boreholes B3, B4, and B5 consisted of silty clay to the total depths explored of approximately 19.0, 19.0, and 20.0 feet, respectively, with the following exceptions. A clayey gravel layers were encountered in borehole B3 between the depths of 5.0 and 8.0 feet and 14.7 and 14.9 feet, and were encountered in borehole B4 between the depths of 5.5 and 7.0 feet and 16.7 and 17.0 feet. In addition, in borehole B4 a sand layer was encountered between the depths of 7.0 and 9.1 feet, and a silty sand layer was encountered between the depths of 17.0 and 19.0 feet below the ground surface.

Groundwater was initially encountered in the boreholes during drilling at depths of 16.7 to 19.0 feet, and was measured in the boreholes after removal of the drilling rods at depths of 8.0, 16.6, and 6.0 feet below the ground surface in boreholes B3, B4, and B5, respectively. The undated report prepared by International Geologic identified the depth to groundwater as approximately 16 feet below the ground surface based on the two soil borings drilled during the June, 2000 investigation.

The surface elevation at the site is between 15 and 20 feet above Mean Sea Level. Review of Figure 1 shows that the topography in the site vicinity gently slopes to the west, and that San Francisco Bay is located approximately 4000 feet northwest of the site. Based on the surface topography, the groundwater flow direction is assumed to be westerly.

LABORATORY ANALYSIS

All of the soil and groundwater samples from the boreholes were analyzed for HVOCs using EPA Method 8260B at McCampbell Analytical, Inc. (McCampbell) in Pacheco, California. McCampbell is a state-accredited hazardous waste testing laboratory, and is the same laboratory that was used for analysis of the samples collected by Geologic International during their June, 2000 investigation.

The sample results show that HVOCs were not detected in any of the soil samples with the exception of 15 ug/kg TCE in borehole B4 at a depth of 5.0 feet. The groundwater sample results show that TCE was detected in B3, B4 and B5 at concentrations of 28, 0.55 and 0.024 mg/L, respectively. In addition, PCE was detected in B5 at a concentration of 0.0094 mg/L. No other HVOCs were detected in any of the water samples.

The soil sample results are summarized in Table 1, and the groundwater sample results are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

Review of the results from the June 2000 investigation in conjunction with the results from the current investigation indicate that the only HVOCs detected were TCE and PCE.

The only soil samples where TCE was detected were in the June 2000 B1 borehole at a concentration of 17 mg/kg at a depth of 15.5 feet and at a concentration of 12 mg/kg at a depth of 18 feet below the ground surface. The depth at which the TCE was detected in soil is approximately coincident with the depth to groundwater at the site. The TCE detected in soil in borehole B1 may have been transported horizontally to these locations by groundwater, and may not have originated at the ground surface in the vicinity of borehole B1. It is unknown if TCE is present at shallower depths at the B1 borehole location because soil samples were not collected for laboratory analysis at shallower depths from borehole B1. In the event that the source area for the TCE is at or near the ground surface in the southeast corner of the subject site, boreholes B3, B4 and B5 indicate that the horizontal extent of TCE in soil at the 5.0-foot depth at the site does not extend beyond the locations of boreholes B3, B4 and B5.

The highest concentrations of TCE in groundwater are in the southeast corner of the property at the B1 borehole location. Figure 3 shows isoconcentration contours for TCE in groundwater at the subject site. Review of Figure 3 shows that the TCE concentrations detected in the groundwater samples from all of the boreholes suggests that TCE is distributed in a westerly direction with a suspected source area in the vicinity of the southeast corner of the subject site. The westerly direction of distribution of TCE in groundwater is coincident with the inferred groundwater flow direction based on site vicinity topography.

PCE was only detected in the June 2000 B2 water sample at a concentration of 0.0049 mg/L, the B4 soil sample at a concentration of 15 ug/kg, and in the B5 water sample at a concentration of 0.0094 mg/L. Because of relatively high TCE concentrations in some of the samples, the associated detection limits for PCE in these samples were elevated. The low concentrations of PCE for samples where PCE was detected are below the elevated PCE detection limits for the samples where TCE was detected. It is possible that PCE could be present at concentrations below the elevated detection limits in samples where elevated PCE detection limits were reported. Isoconcentration contours for PCE in groundwater at the subject site are shown in Figure 4.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has established Environmental Screening Levels (ESLs) for preliminary evaluation of contaminants at sites. The Volume 1 ESL Tables published in July 2003 and updated in February 2004 establish a PCE soil concentration of 88 ug/kg for residential use and 250 ug/kg for industrial or commercial use of a property. Similarly, the ESL tables show TCE soil concentrations of 260 ug/kg for residential use and 460 ug/kg for conditions where groundwater is a current or potential source of drinking water or 730 ug/kg where groundwater is not a current or potential source of drinking water. Unless otherwise specified, groundwater in Alameda county is considered a potential source of drinking water.

Comparison of detected PCE concentrations in soil with associated ESLs show that the 15 ug/kg of PCE detected in borehole B4 is below all of the established ESLs for PCE in soil, and is therefore not considered to be of concern. However, the source of the PCE in the soil sample at borehole B4 has not been determined. Comparison of detected TCE concentrations in soil (in borehole B1) with associated ESLs shows that all detected concentrations of TCE in soil exceed all published ESLs for TCE in soil. When ESLs are exceeded, additional evaluation of the detected contaminants is warranted prior to obtaining case closure from the oversight regulatory agency.

Review of the Volume 1 ESL Tables shows PCE groundwater concentrations of 0.005 mg/L for conditions where groundwater is a current or potential source of drinking water or 0.12 mg/L where groundwater is not a current or potential source of drinking water. Similarly the ESL tables show TCE groundwater concentrations of 0.005 mg/L for conditions where groundwater is a current or potential source of drinking water or 0.36 mg/L where groundwater is not a current or potential source of drinking water. Comparison of the groundwater ESL for PCE with the detected concentrations of PCE shows that PCE in groundwater in borehole B2 is below the ESL and that PCE in borehole B5 is slightly above the ESL of 0.005 mg/L. Based on these results the extent of PCE appears to have been defined to the north of the site. However, as discussed above the elevated detection limits for the groundwater samples where PCE was not detected suggests that PCE may be present at higher concentrations

Comparison of the groundwater ESL for TCE with the detected concentrations of TCE shows that detected TCE concentrations exceeded the ESL of 0.005 mg/L in all five of the groundwater samples. Similar to PCE in groundwater, the extent of TCE in groundwater appears to have been defined to the north of the site.

Because the parcels adjacent to the site on the south and west are occupied by buildings, it is not readily possible to evaluate the presence of PCE and TCE in groundwater at these parcels. RGA recommends the following.

- 1) A copy of this report be provided to the Alameda County Department of Environmental Health, and that regulatory agency approval be obtained for any necessary additional investigation to expedite obtaining case closure.
- 2) A total of six offsite boreholes be drilled at locations shown on the attached Site Vicinity Map (Figure 3) to evaluate the extent of TCE and PCE in groundwater.
- 3) Soil samples be collected at a depth of approximately five feet below the ground surface from a minimum of three locations in the vicinity of borehole B1 to evaluate the southeast corner of the property as the source area for the TCE and PCE detected in groundwater. RGA recommends that excavation of a trench be considered for soil sample collection and evaluation of the southeast corner of the property.

LIMITATIONS

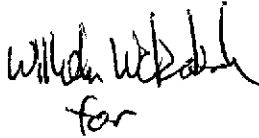
This report was prepared solely for the use of Mr. Juan Perez of Perez Construction. The content and conclusions provided by RGA in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

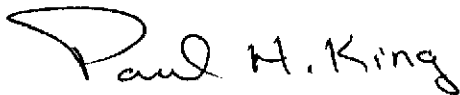
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. RGA is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 547-7771.

Sincerely,
RGA Environmental, Inc.



for
Karin Schroeter
Project Manager



Paul H. King
California Registered Geologist # 5901
Expires: 12/31/05

Attachments: Table 1 Summary of Laboratory Analytical Results-Soil Samples
Table 2 Summary of Laboratory Analytical Results-Groundwater Samples
Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Site Vicinity Map with TCE Isoconcentration Contours in
Groundwater (mg/L)
Figure 4 Site Vicinity Map with PCE Isoconcentration Contours in
Groundwater (mg/L)
Soil Boring Logs (3)
Laboratory Analytical Reports
Chain of Custody Documentation

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TABLE 1
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL SAMPLES
(Samples Collected on November 15, 2004)

| Sample Name | TCE | PCE | Other HVOCs by EPA 8260B |
|-------------|--------|--------|-----------------------------|
| B3-5.0 | ND<5.0 | ND<5.0 | ND<5.0 |
| B4-5.0 | ND<5.0 | 15 | ND<5.0 |
| B5-5.0 | ND<5.0 | ND<5.0 | ND<5.0 |

NOTES:

TCE = Trichloroethene.

PCE = Perchloroethene.

HVOCs = Halogenated Volatile Organic Compounds

ND = Not detected.

Results are in ug/kg, unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER SAMPLES
(Samples Collected on November 15, 2004)

| Sample Name | TCE | PCE | Other HVOCs by EPA 8260B |
|-------------|-------|-----------|-----------------------------|
| B3-water | 28 | ND<0.0005 | ND<0.0005 |
| B4-water | 0.55 | ND<0.0005 | ND<0.0005 |
| B5-water | 0.024 | 0.0094 | ND<0.0005 |

NOTES:

TCE = Trichloroethene.

PCE = Perchloroethene.

HVOCs = Halogenated Volatile Organic Compounds

ND = Not detected.

Results are in mg/L, unless otherwise indicated.

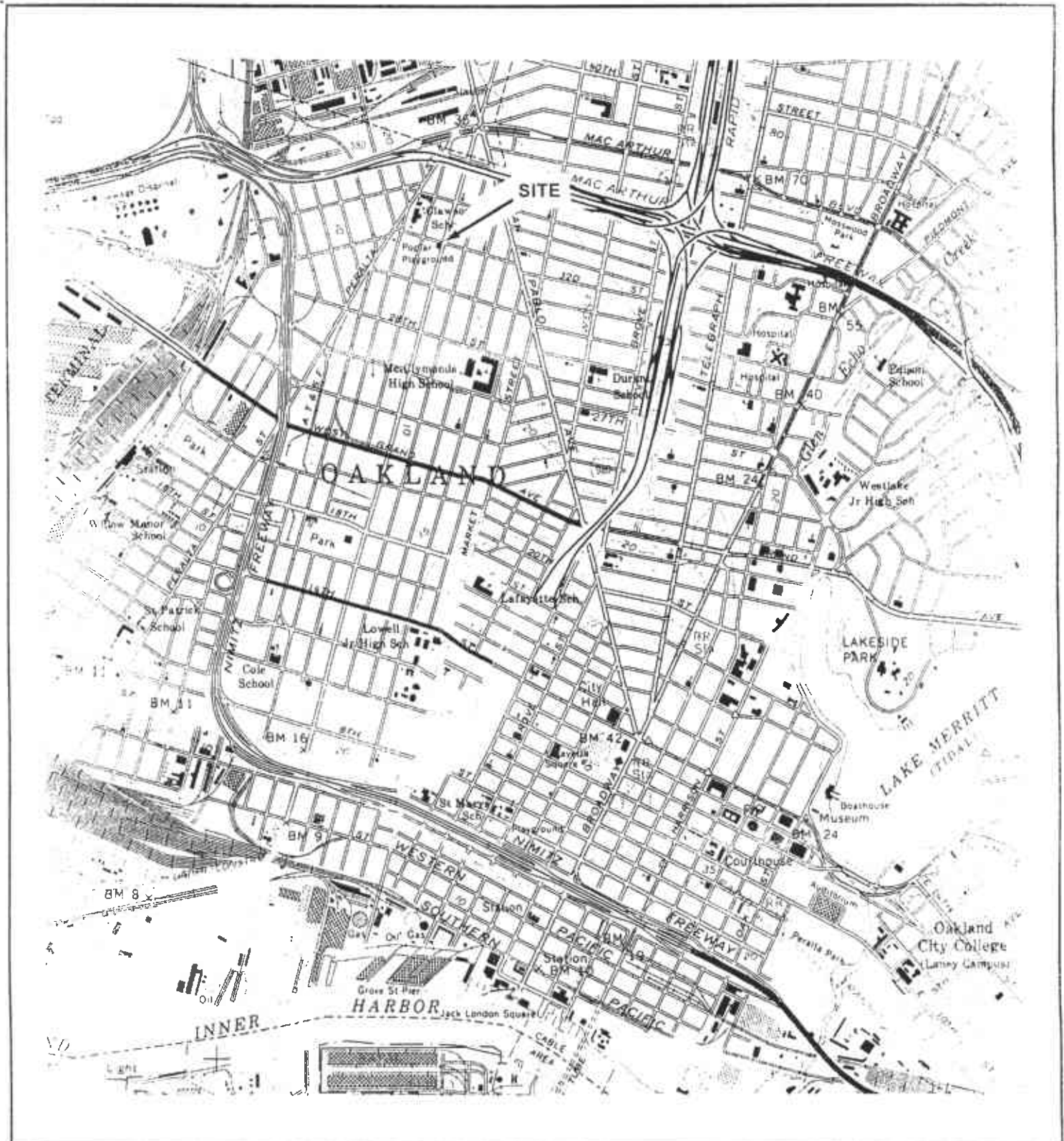



FIGURE 1
 SITE LOCATION MAP
 1201 32nd Street
 Oakland, California



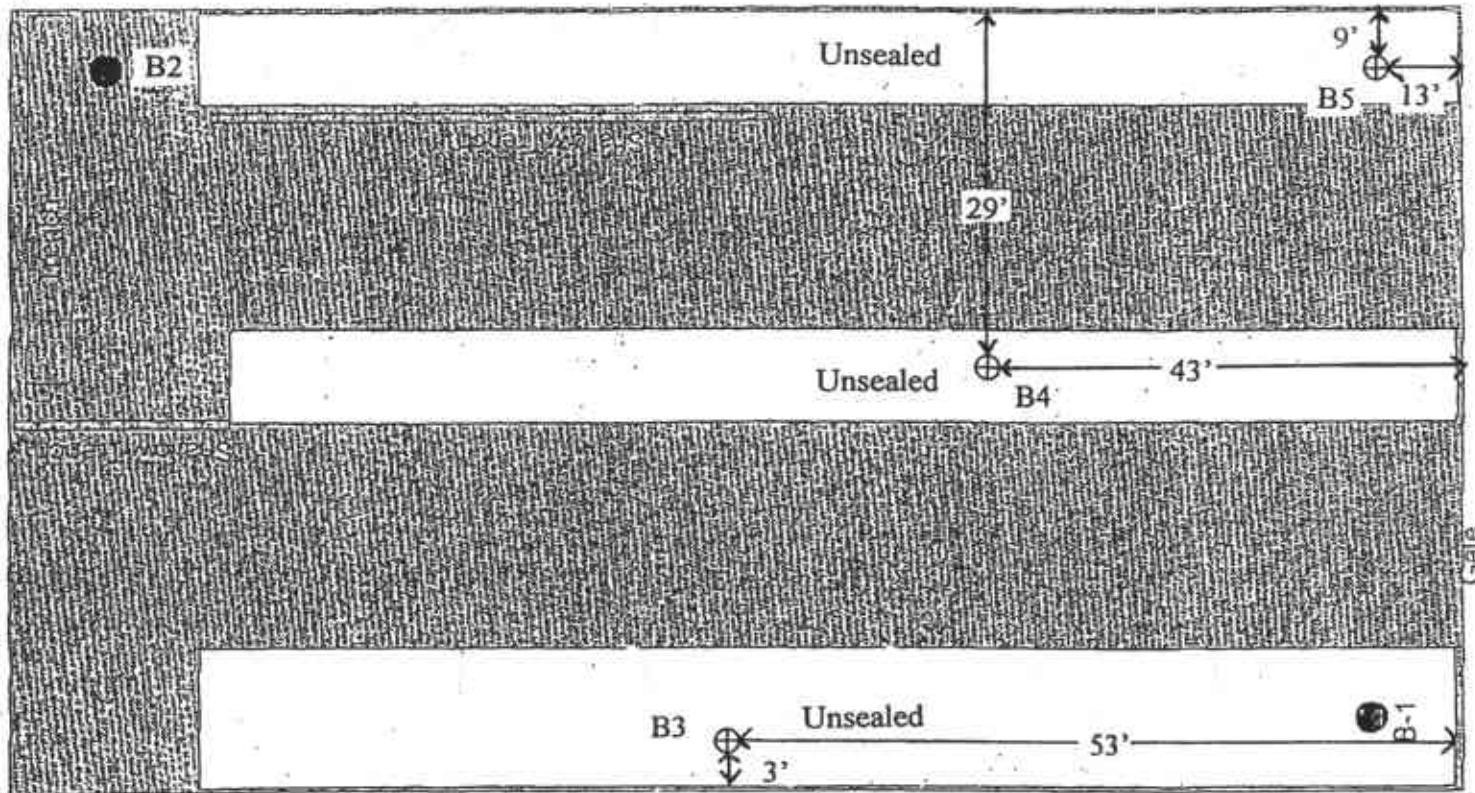
Base Map From:
 U.S. Geological Survey
 Oakland West, California
 7.5 Minute Quadrangle
 Photorevised 1980

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608

0 1,000 2,000

 SCALE IN FEET

32nd Street

Adjoining Site at 1217 32nd Street



Magnolia Street

Adjoining Site at 1337 Magnolia Street

LEGEND



Concrete Surface



B-1

Borehole Drilled
6/12/00 by Others



Borehole Drilled 11/15/04

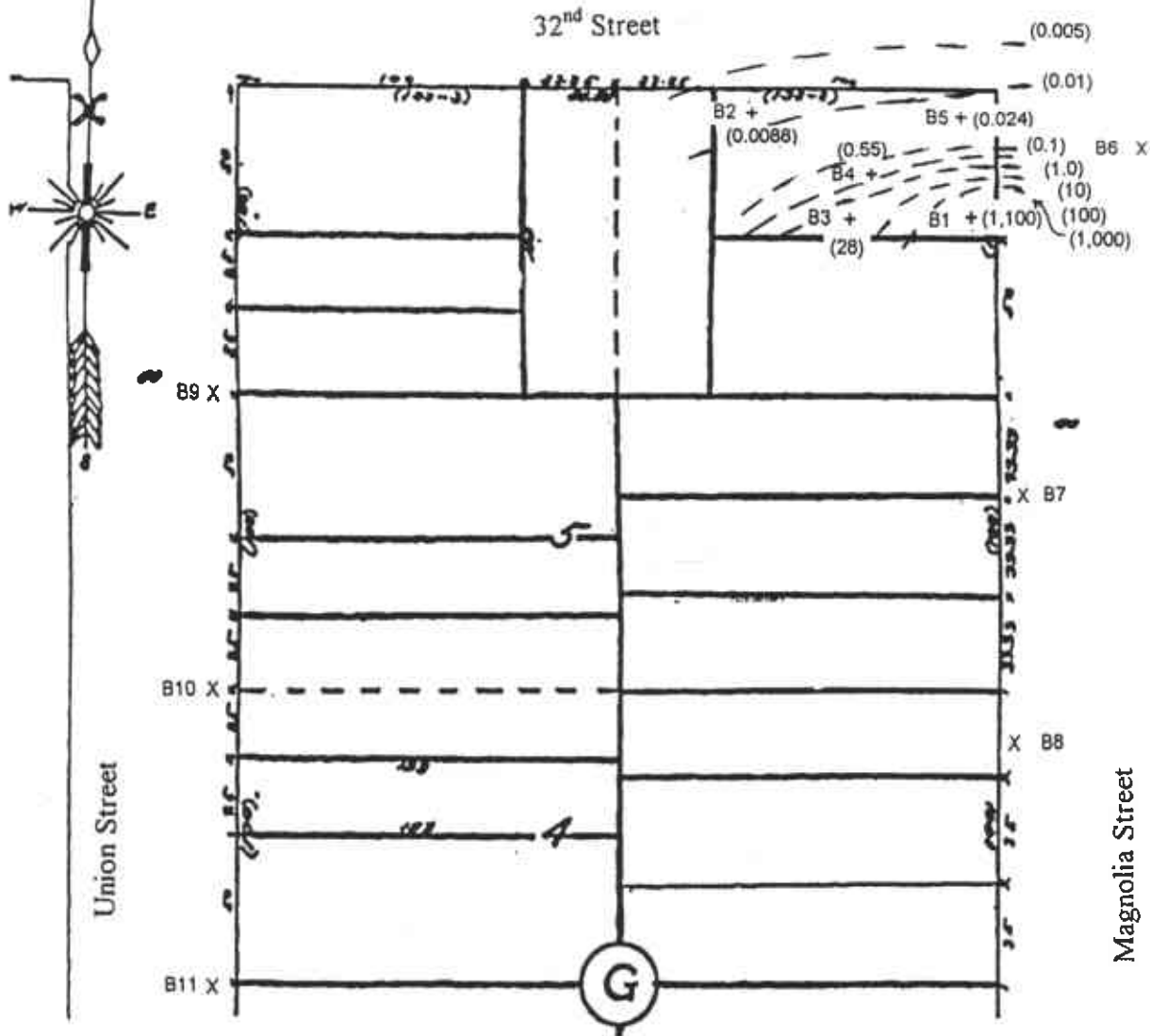


Base Map Prepared From:
International Geologic
Summary Report — Project 017-1
June 20, 2000

FIGURE 2
SITE PLAN
1201 32nd Street
Oakland, California

NOT TO SCALE

Map of the Lands of the Peralta Homestead Association.
ASSESSOR'S MAP 5 474



LEGEND

+ Existing Borehole Location

x Proposed Borehole Location

(1,000) TCE Isoconcentration Contour in Groundwater (mg/L)

FIGURE 3
SITE VICINITY MAP
TCE Isoconcentration Contours in Groundwater (mg/L)
1201 32nd Street
Oakland, California

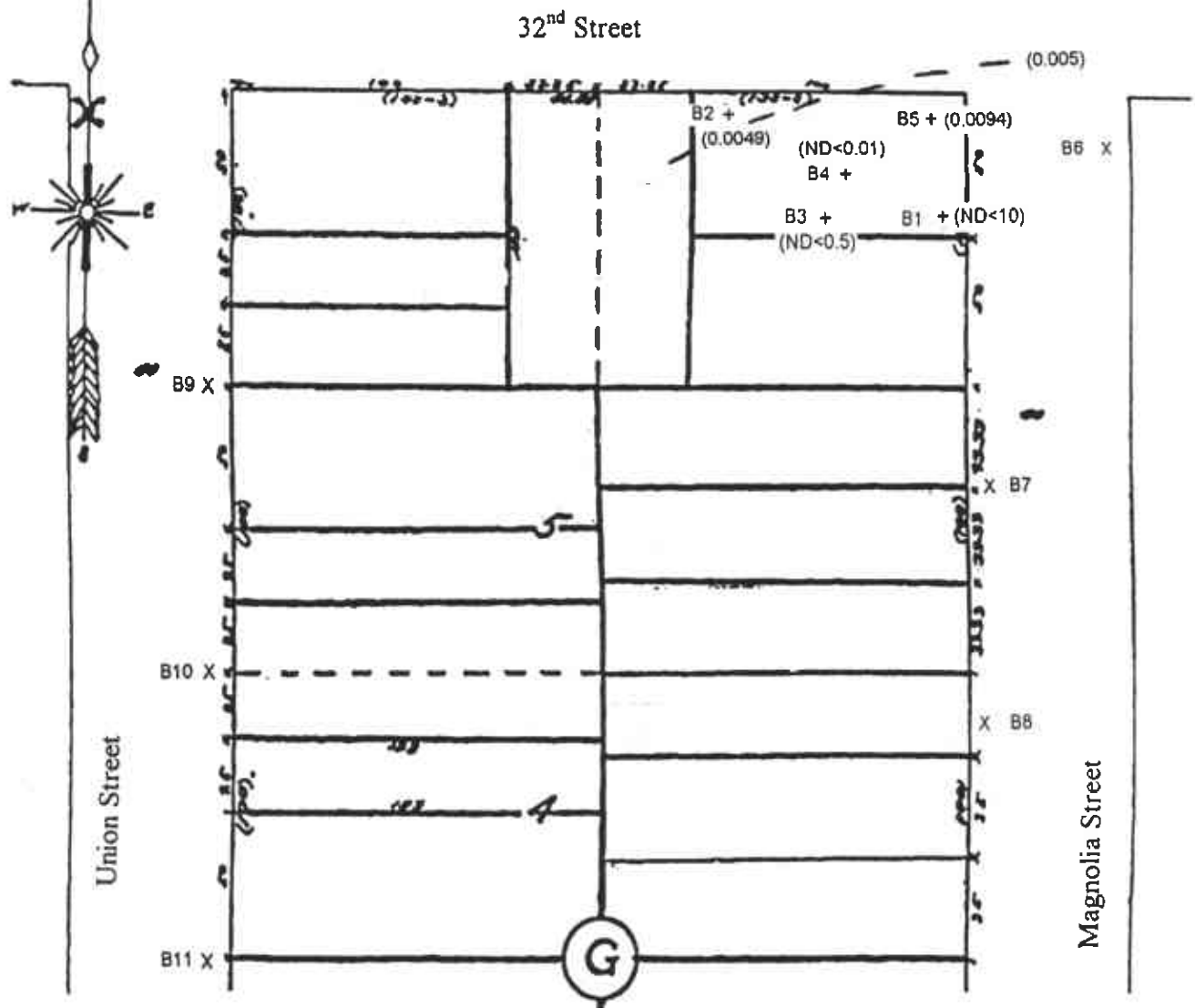


Base Map Prepared From:
 ParcelQuest
 Assessor's Map Database
 For Alameda County, California
 August 2001

RGA Environmental, Inc.
 1486 66th Street
 Emeryville, CA 94608



Map of the Lands of the Peralta Homestead Association.
ASSESSOR'S MAP 5 474



LEGEND

- + Existing Borehole Location
- x Proposed Borehole Location
- (1,000) PCE Isoconcentration Contour in Groundwater (mg/L)

FIGURE 4
SITE VICINITY MAP
PCE Isoconcentration Contours in Groudwater (mg/L)
1201 32nd Street
Oakland, California



Base Map Prepared From:
ParcelQuest
Assessor's Map Database
For Alameda County, California
August 2001

RGA Environmental, Inc.
1466 66th Street
Emeryville, CA 94608



| BORING NO.: B3 | | PROJECT NO.: PRZ10966 | | PROJECT NAME: 1201 32nd Street | | |
|--|---|---------------------------------|---------------------------|--------------------------------|-----------------------|--|
| BORING LOCATION: Center of Southern Edge of Property | | | ELEVATION AND DATUM: NONE | | | |
| DRILLING AGENCY: Vironex, Inc. | | DRILLER: Shaun | | DATE & TIME STARTED: | DATE & TIME FINISHED: | |
| DRILLING EQUIPMENT: Geoprobe 5400 | | | | 11/15/04 | 11/15/04 | |
| COMPLETION DEPTH: 19.0 FEET | | BEDROCK DEPTH: None encountered | | LOGGED BY: | CHECKED BY: | |
| FIRST WATER DEPTH: 14.9 FEET | | NO. OF SAMPLES: 1 soil, 1 water | | WRW | | |
| DEPTH (FT.) | DESCRIPTION | GRAPHIC COLUMN | WELL CONSTRUCTION LOG | BLOW COUNT PER 6" | PID | REMARKS |
| 0.0 to 3.3 | Grayish black silty clay (CL); medium stiff, slightly moist. No Petroleum Hydrocarbon (PHC) odor. | CL | No Well Constructed | | 0 | Borehole continuously cored using a 4-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler. Samples collected in 4-foot intervals. The sampler was lined with 3.8-foot long 1 3/4 inch O.D. cellulose acetate tubes. Water at 8.0 ft., 1:15 PM, immediately after tools removed from 19.0 ft. borehole. Groundwater first encountered at 19.0 ft., 11/15/04 |
| 3.3 to 5.0 | Gray gravelly clay (CL); gravel <1 in. diam., orange mottling; med. stiff, slightly moist. No PHC odor. | CL | | | 0 | |
| 5.0 to 8.0 | Brownish orange clayey, sandy gravel (GC); moist. No PHC odor. | GC | | | 0 | |
| 8.0 to 14.7 | Gray silty clay (CL); soft, moist. No PHC odor. | CL | | | 0 | |
| 10.5 to 14.7 | (10.5 to 14.7 ft. Same with orange mottling; very stiff, slightly moist.) | CL | | | 0 | |
| 14.7 to 14.9 | Gray and red clayey gravel (GC) with fine sand; moist. No PHC odor. | <GC | | | 0 | |
| 14.9 to 19.0 | Gray sandy clay (CL); very stiff, moist to wet. No PHC odor. | CL | | | | |
| 19.0 to 30.0 | | | | | | Borehole terminated at 19.0 foot depth, 11/15/04. A 1-inch diameter slotted PVC pipe was placed in the borehole. A groundwater sample was collected using a polyethylene tube with a stainless steel foot valve. No sheen or PHC odor in water sample. Borehole grouted 11/15/04 using neat cement. |

| BORING NO.: B4 | | PROJECT NO.: PRZ10965 | | PROJECT NAME: 1201 32nd Street | | |
|---|---|---------------------------------|---------------------------|--------------------------------|-----------------------|---|
| BORING LOCATION: Center of Property | | | ELEVATION AND DATUM: NONE | | | |
| DRILLING AGENCY: Vironex, Inc. | | DRILLER: Shaun | | DATE & TIME STARTED: | DATE & TIME FINISHED: | |
| DRILLING EQUIPMENT: Geoprobe 5400 | | | | 11/15/04 | 11/15/04 | |
| COMPLETION DEPTH: 19.0 FEET | | BEDROCK DEPTH: None encountered | | LOGGED BY: | CHECKED BY: | |
| FIRST WATER DEPTH: 16.7 FEET | | NO. OF SAMPLES: 1 soil, 1 water | | WRW | | |
| DEPTH (FT.) | DESCRIPTION | GRAPHIC COLUMN | WELL CONSTRUCTION LOG | BLOW COUNT PER 6" | PID | REMARKS |
| 5 | 0.0 to 2.9 ft. Grayish black silty clay (CL); soft, moist. No Petroleum Hydrocarbon (PHC) odor. | CL | No Well Constructed | | 0 | Borehole continuously cored using a 4-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler. Samples collected in 4-foot intervals. The sampler was lined with 3.8-foot long 1 3/4 inch O.D. cellulose acetate tubes. |
| | 2.9 to 5.5 ft. Gray gravelly, silty clay (CL); gravel <3/4 in. diam.; medium stiff, moist. No PHC odor. | | | | | |
| 5.5 to 7.0 ft. Brownish orange clayey gravel (GC); gravel <3/4 in. diam.; moist. No PHC odor. | GC | | | | | |
| 7.0 to 9.1 ft. Orangish brown fine sand (SP); med. dense, moist. No PHC odor. | SP | | | | | |
| 10 | 9.1 to 16.7 ft. Gray silty clay (CL); orange mottling; very stiff, slightly moist. No PHC odor. | CL | | | | |
| | (16.0 to 16.7 ft. Same except soft, moist.) | | | | | |
| 15 | 16.7 to 17.0 ft. Brownish orange clayey gravel (GC); wet. No PHC odor. | SM | | | | |
| | 17.0 to 19.0 ft. Gray silty sand (SM); orange mottling; med. dense, wet. No PHC odor. | | | | | |
| 20 | | | | | | Borehole terminated at 19.0 foot depth, 11/15/04. A 1-inch diameter slotted PVC pipe was placed in the borehole. A groundwater sample was collected using a polyethylene tube with a stainless steel foot valve. No sheen or PHC odor in water sample. Borehole grouted 11/15/04 using neat cement. |
| 25 | | | | | | |
| 30 | | | | | | |

| BORING NO.: B5 | | PROJECT NO.: PRZ10966 | | PROJECT NAME: 1201 32nd Street | | |
|---|---|---------------------------------|---------------------------|--------------------------------|-----------------------|---|
| BORING LOCATION: Northeast corner of Property | | | ELEVATION AND DATUM: NONE | | | |
| DRILLING AGENCY: Vironex, Inc. | | DRILLER: Shaun | | DATE & TIME STARTED: | DATE & TIME FINISHED: | |
| DRILLING EQUIPMENT: Geoprobe 5400 | | | | 11/15/04 | 11/15/04 | |
| COMPLETION DEPTH: 20.0 FEET | | BEDROCK DEPTH: None encountered | | LOGGED BY: | CHECKED BY: | |
| FIRST WATER DEPTH: 18.3 FEET | | NO. OF SAMPLES: 2 soil, 1 water | | WRW | | |
| DEPTH (FT.) | DESCRIPTION | GRAPHIC COLUMN | WELL CONSTRUCTION LOG | BLOW COUNT PER 6" | PID | REMARKS |
| | 2 in. Concrete, 2 in. Baserock (FILL) | | FILL | | | |
| | 4 in. to 2.7 ft. Grayish black silty clay (CL); medium stiff, slightly moist. No Petroleum Hydrocarbon (PHC) odor. | | No Well Constructed | | 0 | Borehole continuously cored using a 4-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler. Samples collected in 4-foot intervals. The sampler was lined with 3.8-foot long 1 3/4 inch O.D. cellulose acetate tubes. |
| 5 | 2.7 to 18.3 ft. Grayish brown silty clay (CL); gravel <1/2 in. diam., orange mottling; med. stiff, slightly moist. No PHC odor. | | | | 0 | |
| 10 | (15.0 to 15.1 ft. Same except more prevalent gravel and stronger orange mottling.) | CL | | | 0 | Water at 6.0 ft., 10:20 AM, immediately after tools removed from 20.0 ft. borehole. |
| 15 | | | | | 0 | |
| 20 | 18.3 to 20.0 ft. Brownish orange sandy, gravelly clay (CL); soft, wet. No PHC odor. | | | | 0 | Groundwater first encountered at 18.3 ft., 11/15/04 |
| 25 | | | | | | Borehole terminated at 20.0 foot depth, 11/15/04. A 1-inch diameter slotted PVC pipe was placed in the borehole. A groundwater sample was collected using a polyethylene tube with a stainless steel foot valve. No sheen or PHC odor in water sample. Borehole grouted 11/15/04 using neat cement. |
| 30 | | | | | | |

| | |
|--|--|
|  McCampbell Analytical, Inc. | 1102nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com |
|--|--|

| | | |
|---|--|--------------------------|
| RGA Environmental 1466 66th Street Emeryville, CA 94608 | Client Project ID: #PRZ 10966; 1201 32nd St., Oakland | Date Sampled: 11/15/04 |
| | Client Contact: Wilhelm Welzenbach | Date Received: 11/16/04 |
| | Client P.O.: | Date Extracted: 11/16/04 |
| | | Date Analyzed: 11/17/04 |

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0411233

| | | | | |
|-----------|--------------|--------------|--------------|---------------------------|
| Lab ID | 0411233-001A | 0411233-002A | 0411233-003A | |
| Client ID | B3-5.0 | B4-5.0 | B5-5.0 | Reporting Limit for DF =1 |
| Matrix | S | S | S | |
| DF | 1 | 1 | 1 | S W |

| Compound | Concentration | | | µg/Kg | µg/L |
|------------------------------|---------------|----|----|-------|------|
| Bromodichloromethane | ND | ND | ND | 5.0 | NA |
| Bromoform | ND | ND | ND | 5.0 | NA |
| Bromomethane | ND | ND | ND | 5.0 | NA |
| Carbon Tetrachloride | ND | ND | ND | 5.0 | NA |
| Chlorobenzene | ND | ND | ND | 5.0 | NA |
| Chloroethane | ND | ND | ND | 5.0 | NA |
| 2-Chloroethyl Vinyl Ether | ND | ND | ND | 5.0 | NA |
| Chloroform | ND | ND | ND | 5.0 | NA |
| Chloromethane | ND | ND | ND | 5.0 | NA |
| Dibromochloromethane | ND | ND | ND | 5.0 | NA |
| 1,2-Dichlorobenzene | ND | ND | ND | 5.0 | NA |
| 1,3-Dichlorobenzene | ND | ND | ND | 5.0 | NA |
| 1,4-Dichlorobenzene | ND | ND | ND | 5.0 | NA |
| Dichlorodifluoromethane | ND | ND | ND | 5.0 | NA |
| 1,1-Dichloroethane | ND | ND | ND | 5.0 | NA |
| 1,2-Dichloroethane (1,2-DCA) | ND | ND | ND | 5.0 | NA |
| 1,1-Dichloroethene | ND | ND | ND | 5.0 | NA |
| cis-1,2-Dichloroethene | ND | ND | ND | 5.0 | NA |
| trans-1,2-Dichloroethene | ND | ND | ND | 5.0 | NA |
| 1,2-Dichloropropane | ND | ND | ND | 5.0 | NA |
| cis-1,3-Dichloropropene | ND | ND | ND | 5.0 | NA |
| trans-1,3-Dichloropropene | ND | ND | ND | 5.0 | NA |
| Methylene chloride | ND | ND | ND | 5.0 | NA |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | 5.0 | NA |
| Tetrachloroethene | ND | 15 | ND | 5.0 | NA |
| 1,1,1-Trichloroethane | ND | ND | ND | 5.0 | NA |
| 1,1,2-Trichloroethane | ND | ND | ND | 5.0 | NA |
| Trichloroethene | ND | ND | ND | 5.0 | NA |
| Trichlorofluoromethane | ND | ND | ND | 5.0 | NA |
| Vinyl Chloride | ND | ND | ND | 5.0 | NA |

| Surrogate Recoveries (%) | | | |
|--------------------------|-----|-----|-----|
| %SS1: | 101 | 105 | 104 |
| %SS2: | 97 | 98 | 98 |
| %SS3: | 103 | 105 | 106 |


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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than -1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight.

DHS Certification No. 1644


 Angela Rydelius, Lab Manager



Emeryville, CA 94608
510-547-7771
510-547-1983 fax
www.rgaenv.com

0411235
CHAIN OF CUSTODY RECORD

| PROJECT NUMBER: PRZ10966 | | PROJECT NAME: 1201 32nd St, Oakland | | | NUMBER OF CONTAINERS | ANALYSIS(ES) HVOCS by 8810 | | | | PRESERVATIVE | REMARKS |
|--|----------|--|------|---------------------|--------------------------------------|-------------------------------|--|--|--|--------------|--------------------------|
| SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach | | | | | | | | | | | |
| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | | | | | | | |
| B3-5.0 | 11/15/04 | | soil | South (center) edge | 1 | X | | | | TCE | Normal Turnaround |
| B4-5.0 | ↓ | | ↓ | middle of lot | ↓ | X | | | | ↓ | ↓ |
| B5-5.0 | ↓ | | ↓ | north east corner | ↓ | X | | | | ↓ | ↓ |
| <input checked="" type="checkbox"/> GOOD CONDITION <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> DECONTAMINATED IN LAB <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> PRESERVED IN LAB PRESERVATION: <input type="checkbox"/> URALS <input type="checkbox"/> OMS <input type="checkbox"/> METALS <input type="checkbox"/> OTHER | | | | | TOTAL NO. OF SAMPLES (THIS SHIPMENT) | | 3 | | LABORATORY: McCampbell Analytical | | |
| RELINQUISHED BY: (SIGNATURE) Wilhelm Welzenbach | | | | | DATE | TIME | RECEIVED BY: (SIGNATURE) Scott Brown | | TOTAL NO. OF CONTAINERS (THIS SHIPMENT) | | 3 |
| RELINQUISHED BY: (SIGNATURE) Scott Brown | | | | | DATE | TIME | RECEIVED BY: (SIGNATURE) | | LABORATORY CONTACT: | | LABORATORY PHONE NUMBER: |
| RELINQUISHED BY: (SIGNATURE) Scott Brown | | | | | DATE | TIME | RECEIVED FOR LABORATORY BY: (SIGNATURE) me well | | Angela Ruppel | | (925) 778-1620 |
| | | | | | | | REMARKS: | | SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO | | |

NOV 22 2004 1:18PM MCHAMPELL ANALYTICAL 9257984612 P.2

| | |
|--------------------------------------|---|
| McC Campbell Analytical, Inc. | 110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-794-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com |
|--------------------------------------|---|

| | | |
|---|--|--------------------------|
| RGA Environmental 1466 66th Street Emeryville, CA 94608 | Client Project ID: #PRZ 10966; 1201 32nd St., Oakland | Date Sampled: 11/15/04 |
| | Client Contact: Wilhelm Welzenbach | Date Received: 11/16/04 |
| | Client P.O.: | Date Extracted: 11/17/04 |
| | Date Analyzed: 11/17/04 | |

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0411238

| Lab ID | 0411238-001A | 0411238-002A | 0411238-003A | Reporting Limit: for DF=1 | |
|------------------------------|---------------|--------------|--------------|---------------------------|------|
| Client ID | B3-Water | B4-Water | B5-Water | | |
| Matrix | W | W | W | | |
| DF | 1000 | 20 | 1 | S | W |
| Compound | Concentration | | | µg/kg | µg/L |
| Bromodichloromethane | ND<500 | ND<10 | ND | NA | 0.5 |
| Bromoform | ND<500 | ND<10 | ND | NA | 0.5 |
| Bromomethane | ND<500 | ND<10 | ND | NA | 0.5 |
| Carbon Tetrachloride | ND<500 | ND<10 | ND | NA | 0.5 |
| Chlorobenzene | ND<500 | ND<10 | ND | NA | 0.5 |
| Chloroethane | ND<500 | ND<10 | ND | NA | 0.5 |
| 2-Chloroethyl Vinyl Ether | ND<500 | ND<10 | ND | NA | 0.5 |
| Chloroform | ND<500 | ND<10 | ND | NA | 0.5 |
| Chloromethane | ND<500 | ND<10 | ND | NA | 0.5 |
| Dibromochloromethane | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,2-Dichlorobenzene | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,3-Dichlorobenzene | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,4-Dichlorobenzene | ND<500 | ND<10 | ND | NA | 0.5 |
| Dichlorodifluoromethane | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,1-Dichloroethane | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,2-Dichloroethane (1,2-DCA) | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,1-Dichloroethene | ND<500 | ND<10 | ND | NA | 0.5 |
| cis-1,2-Dichloroethene | ND<500 | ND<10 | ND | NA | 0.5 |
| trans-1,2-Dichloroethene | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,2-Dichloropropane | ND<500 | ND<10 | ND | NA | 0.5 |
| cis-1,3-Dichloropropene | ND<500 | ND<10 | ND | NA | 0.5 |
| trans-1,3-Dichloropropene | ND<500 | ND<10 | ND | NA | 0.5 |
| Methylene chloride | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND<500 | ND<10 | ND | NA | 0.5 |
| Tetrachloroethene | ND<500 | ND<10 | 9.4 | NA | 0.5 |
| 1,1,1-Trichloroethane | ND<500 | ND<10 | ND | NA | 0.5 |
| 1,1,2-Trichloroethane | ND<500 | ND<10 | ND | NA | 0.5 |
| Trichloroethene | 28,000 | 550 | 24 | NA | 0.5 |
| Trichlorofluoromethane | ND<500 | ND<10 | ND | NA | 0.5 |
| Vinyl Chloride | ND<500 | ND<10 | ND | NA | 0.5 |

Surrogate Recoveries (%)

| | | | | |
|----------|-----|-----|-----|--|
| %SS1: | 101 | 102 | 103 | |
| %SS2: | 93 | 94 | 93 | |
| %SS3: | 102 | 101 | 100 | |
| Comments | i | j | j | |

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit raised due to insufficient sample amount.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

pygma



1400 00 Street
Emeryville, CA 94608
510-547-7771
510-547-1983 fax
www.rgaenv.com

0411238

CHAIN OF CUSTODY RECORD

| | | | | | | | | | | | |
|---|----------|---|--------------|---|---|--|--|--|--|--------------|-------------------|
| PROJECT NUMBER: PR 7 10966 | | PROJECT NAME: 1201 32nd St., Oakland | | | NUMBER OF CONTAINERS | ANALYSIS(ES): HVOG by R016 | | | | PRESERVATIVE | REMARKS |
| SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach | | | | | | | | | | | |
| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | | | | | | | |
| T30 T30 T5 B3- water | 11/15/04 | | water | South edge (center) | 7 | X | | | | ICE | Normal Turnaround |
| B4- water | ↓ | | ↓ | middle of lot | ↓ | X | | | | ↓ | ↓ |
| B5- water | ↓ | | ↓ | northeast corner | ↓ | X | | | | ↓ | ↓ |
| | | | | | <input checked="" type="checkbox"/> IDW <input checked="" type="checkbox"/> GOOD CONDITION <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> DISCONTAMINATED BY LAB <input checked="" type="checkbox"/> PRESERVATION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> PRESERVED IN LAB VOAS / OAS / METALS / OTHER | | | | | | |
| RELINQUISHED BY: (SIGNATURE) Wilhelm Welzenbach | | DATE 11/16 | TIME 2:25 | RECEIVED BY: (SIGNATURE) Scott Gunn | | TOTAL NO. OF SAMPLES (THIS SHIPMENT) 3 | LABORATORY: McCampbell Analytical | | | | |
| RELINQUISHED BY: (SIGNATURE) Scott Gunn | | DATE | TIME | RECEIVED BY: (SIGNATURE) | | TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 21 | LABORATORY CONTACT: Angela Rydelius LABORATORY PHONE NUMBER: (925) 798-1620 | | | | |
| RELINQUISHED BY: (SIGNATURE) Scott Gunn | | DATE 11/16/04 | TIME 5:45 | RECEIVED FOR LABORATORY BY: (SIGNATURE) M. V. O. A. L. | | SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO | | | | | |
| REMARKS: VOAs preserved to HCL. | | | | | | | | | | | |