

RECEIVED

By Alameda County Environmental Health 8:43 am, Jul 26, 2016

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



Amanda Kobler
1550 Park LLC
2323 Magnolia Street, Suite 2
Oakland, California 94607

Alameda County Case RO0003069
Geotracker Global ID T100002519



A d a n t a

WORK PLAN
ENVIRONMENTAL SITE ASSESSMENT
SOIL, GROUNDWATER and SOIL VAPOR SAMPLING

1550 Park Avenue
Emeryville, California
Alameda County Case RO0003609
Geotracker Global ID T100002519

Date:

July 21, 2016

Prepared for:

1550 Park, LLC
Oakland, California

Prepared by:

Adanta, Inc.
828 School Street
Napa, California 94559
(707) 709-8894


Prepared for:

1550 Park, LLC
2323 Magnolia Street, Suite 2
Oakland, California 94607

WORK PLAN
ENVIRONMENTAL SITE ASSESSMENT
SOIL, GROUNDWATER, and SOIL VAPOR SAMPLING
1550 Park Avenue
Emeryville, California


Project: A1293-2
Date: July 21, 2016

Prepared by:



Nick Patz
Project Manager

Reviewed by:



Dan Baden, PG 5764, CEG 1857
Senior Geologist



Adanta, Inc.
828 School Street
Napa, California 94559
Tel. (707) 709-8894



Table of Contents

1.0 INTRODUCTION 1

1.1 PROPERTY BACKGROUND1

2.0 PHYSICAL SETTING 5

2.1 REGIONAL AND SITE GEOLOGY5

2.2 REGIONAL AND SITE HYDROGEOLOGY5

3.0 ASSESSMENT ACTIVITIES 6

4.0 PREPARATION ACTIVITIES 7

4.1 PROJECT MEETING7

4.2 HEALTH AND SAFETY PLAN.....7

4.3 UTILITY CLEARANCE7

4.4 PERMITS7

4.5 SUBCONTRACTORS7

5.0 FIELD ACTIVITIES 9

5.1 SAMPLING LOCATIONS.....9

5.2 SOIL VAPOR SAMPLING.....10

5.3 SOIL SAMPLING.....10

5.4 GROUNDWATER SAMPLING10

5.5 BORING BACKFILL10

5.6 INVESTIGATIVE DERIVED WASTES10

5.7 LABORATORY ANALYSES10

6.0 REPORT12

7.0 REFERENCES.....13

8.0 LIMITATIONS14

FIGURES

- Figure 1 – Property Location Map
- Figure 2 – Sample Location Map
- Figure 3 – Park Avenue UST Groundwater Data Map 2015
- Figure 4 – Technichem Groundwater Data Map 2013

TABLES

- Table 1 – 1996 Tank Closure Summary Data
- Table 2 – Park Avenue UST Soil and Groundwater Data
- Table 3 - Technichem Groundwater Data



APPENDICES

Appendix A – 1996 Case Closure Summary



A d a n t a

1.0 INTRODUCTION

Adanta is pleased to provide this Work Plan to conduct an environmental site assessment (ESA) consisting of soil vapor, soil, and groundwater sampling and laboratory analysis for a parcel of land located at 1550 Park Avenue, Emeryville, California (Site; Figure 1 – Site Location Map).

1.1 PROPERTY BACKGROUND

The Site encompasses approximately 0.49 acres of land area. It is currently developed with one two-story brick building with a concrete foundation, and one corrugated metal maintenance building with a concrete foundation. Most of the outside areas of the Site are concrete paved. The main building is in an “L” shape, and was apparently constructed in segments, but completed as it is today, in about 1946. Historically the Site has been in commercial uses, such as an oxygen supply company, furniture manufacturing company, and refrigeration supply company. The refrigeration supply company also conducted offsite maintenance. Tenant improvements in the 1970s included construction of a residential apartment on the second floor of the south side of the building.

Rail lines of the Southern Pacific Rail Road are adjacent to the west. To the north of the Site, is a building that contained the former location of Technichem (a dry cleaning filter recycling facility). Halleck Street is to the east and Park Avenue to the south. The land uses adjacent to Halleck and Park Avenues near the Property are a mix of new residential, and older commercial, and industrial.

1550 Park Open Regulatory Listing

A leaking UST case at the Property is being considered for closure by the ACEH under guidelines for commercial use. The former UST was located during street improvements in the sidewalk area of Park Avenue. ACEH has asked to be informed if the land use changes to residential, which would affect instituting new regulatory closure criteria. The Site is proposed by the current owner to be developed as live/work space, which is considered commercial use by the City of Emeryville, but residential use by ACEH.

In November 2009 a 1,500-gallon capacity UST was discovered under the sidewalk of Park Avenue, during street renovations by the City of Emeryville. The UST was thought to be a heating-oil storage vessel for heating the Property building. The UST was removed and floating petroleum product was observed on the groundwater that had accumulated in the excavation at about six feet below surface. 110 gallons of water was pumped from the excavation for disposal. About 20 tons



of soil was transported for offsite disposal as non-hazardous waste. TPHg, TPHd, and TPHmo were reported in excess of environmental screening levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) in the 20 cubic yards of disposed soil. Based upon subsequent environmental assessments, additional soil left in-place also exceeds ESLs for residential development. A letter from ACEH to the former Site owner states “Re-evaluation of this case is required if land use changes to any residential or other conservative land use or any redevelopment occurs as residual contamination is document to remain in the soil beneath the site. This site is to be entered into the City of Emeryville Permit Tracking System due to the residual contamination on site.”

It should be noted that the known contaminated area from the UST is under the sidewalk to the south of the Site, and under Park Avenue. At this time, it is not known if soil or groundwater contamination has migrated beneath the Site building. Suspected groundwater flow in the area fluctuates from west to southwest, and fairly recently to south-southeast. The gradient has been measured at the property to the north of the Site at a relatively flat 0.008. A letter from ACEH dated July 14, 2016 indicated that regulatory closure under commercial use criteria would be granted following uploading of files to Geotracker and submittal of a Well Destruction Report confirming that all onsite wells had been properly abandoned. Refer to Figures 3 and 4 for sample locations and analytical data.

1550 Park Closed Regulatory Listing

A 1,500-gallon UST used to store gasoline for fueling of distribution vehicles was removed from the west central portion of the Site in 1994. Regulatory closure was granted in 1996.

Following removal of the UST, excavated soil removed as a non-hazardous RCRA waste. Apparently contamination was limited to the upper five feet of soil (20 cubic yards), which was removed and properly disposed. 110 gallons of groundwater was pumped from the excavation. When groundwater recharged and was re-sampled it was found that concentrations of contaminants were much lower than initial sampling.

One groundwater monitoring well was subsequently installed on the northwest side of the UST excavation. Although groundwater was encountered in the boring completed as a monitoring wells at a depth of four feet, the monitoring well was screened between five and 15 feet. No explanation was given concerning the construction of the well. Soil samples collected during well installation were reported to not have detected concentrations of contaminants of concern (COCs), and water samples collected following well installation were also reported to not have concentrations of COCs. Soil and groundwater were analyzed for TPHg and BTEX compounds. Soil was also analyzed for lead.

A composite sample from the excavated stockpile was reported by the laboratory to contain minor amounts of TPHg and BTEX compounds, however two soil samples collected from the bottom of the excavation did have petroleum contamination above method reporting limits. Following



recharge of groundwater in the excavation an additional groundwater sample was collected and was found to contain 690 µg/L TPHg, 5.6 µg/L benzene, 5.7 µg/L toluene, 1.6 µg/L ethylbenzene, and 18 µg/L total xylenes. After installation of the monitoring well groundwater was sampled and TPHg and BTEX analytes were found to not be detected above method detection limits.

1.2 NEARBY SITE (Technichem)

The northern boundary of the Property is marked by the wall of a large building. The central portion of that building housed Technichem, a tenant that caused contamination of soil and groundwater by PCE. Technichem no longer occupies the site.

In 2010 ERRG was contracted by DTSC to remove contaminated soil from the Technichem site. Soil that exceeded ESLs for shallow soil were stockpiled in the building and later removed for disposal. Soil exceeding the ESLs for PCE were left in place along the western wall and the northern excavation boundary, the eastern portion of the southern wall, and a small area at the base of the excavation due to engineering constraints. In 2011 and 2012 ERRG conducted further assessment to delineate the remaining contaminated soil. One sample was reported to contain 260,000 micrograms per kilogram (µg/Kg) PCE. During this assessment ERRG installed six monitoring wells; three screened between 5 and 15 feet to capture shallow groundwater and three screened between 15 to 25 feet to assess the deeper water bearing zone. In total the site has 12 groundwater monitoring wells. ERRG removed additional soil beneath the building.

In 2013 URS conducted an indoor air sampling assessment. During pre-screening with a PID monitoring well GW-13 was opened and the PID reading in the well was recorded at 220 ppm. Subsequently URS collected two indoor air samples using DTSC protocol at three feet above the surface. The sample collected from the center of the former Technichem facility was reported to have a concentration of PCE of 3.2 µg/m³, and the sample collected from the middle of the tenant space to the north of the Property was reported to have a concentration of 1.7 µg/m³. The CHHSL for PCE is 0.693µg/m³. Detected concentrations of TCE were below the CHHSL.

URS monitored groundwater in existing wells GW-4 through GW-8 and GW-12. Based upon reported laboratory data from the monitoring, URS installed GW-13 to coincide with the location of a groundwater sample collected from a previous ERRG installed monitoring well (GW-2) that found a PCE concentration of 1,200 micrograms per liter (µg/L). GW-13 was screened between 15-25 feet. During this assessment shallow water was recorded between 7.25 and 8.65 feet about mean sea level (AMSL). Groundwater measured in the deeper wells was found between 7.16 and 8.52 feet AMSL. Both the shallow and deeper data sets were contoured to flow to the south southeast. And both were determined to be at a gradient of 0.008. Groundwater samples from GW-4 through GW-8 were not reported to have VOCs except for one low-level detection of 1,2 DCE in GW-8. GW-12 and GW-13 were reported to have PCE concentrations of 14 µg/L and 12,000



µg/L respectively. The same two wells were reported to have concentrations of 16 µg/L and 42 µg/L TCE; and 12 µg/L and 21 µg/L cis 1,2 DCE, which exceed cleanup guidelines.

GW-13 is located in the approximate center of the former Technichem facility and is about 85 feet north of the Property boundary. The groundwater from GW-8 was found to not have VOC contamination in the shallow zone. GW-8 is located near the southern wall of the building adjacent to the north of the Property just a few feet north of the northwest corner of the Property.

It should be noted that in groundwater monitoring reports previous to those conducted by URS in 2013 reported groundwater flow directions were consistently toward the west and southwest. URS recommended additional delineation of PCE contamination around GW-13, installing at least one addition well downgradient and screened between 15-25 feet. In situ remediation was recommended as “an alternative”, with bioaugmentation since no DHC were detected in GW-13 during 2013 sampling.

There have been significant legal encounters between the DTSC and the owners of the building that was formerly leased to Technichem. In January 2016, these encounters resulted in a Settlement and Consent Decree, whereby the owner (Pelligrini Trust) consents to pay the first \$1,600,000 in assessment and cleanup costs for the site.

1.3 PROPOSED PROPERTY USE

1550 Park LLC plans to redevelop the Property for commercial and residential use that will have commercial spaces on the ground floor, and residential spaces on the ground and second floors. The exterior of the building would remain as is, however it would be seismically retrofitted. The building interior would undergo significant restoration so it could be used as condominiums and commercial spaces.

2.0 PHYSICAL SETTING

The Site lies at an elevation of approximately 10 feet above mean sea level (AMSL), and is in a relatively flat portion of the city of Emeryville in Alameda County, California. The area of the Property has a slight slope to the west toward San Francisco Bay (USGS California 7.5-minute Oakland West Quadrangle, Topographic Map). There are no sharp elevation rises or depressions in the near-vicinity of the Property.

2.1 REGIONAL AND SITE GEOLOGY

Hills in the Emeryville area and along the San Francisco Peninsula, as well as the down-warped Bay plain in between are part of the Central Coast Range Province. The rock exposed in the hills and underlying sedimentary deposits of the Bay plain consist of Tertiary-aged sediments and volcanic rock. The uplift of the hills resulted in erosion and deposition of thick alluvial fan deposits in the Bay plain, known as the Alameda Formation

Our description of soil conditions at the Site are based upon boring logs completed during various environmental assessments conducted at the Site. Soil from approximately one to five feet below surface is composed of mostly fill material including loam, aggregate base, and gravelly matrices. Below the fill material is a natural dark brown clay that extends to about 15 feet.

2.2 REGIONAL AND SITE HYDROGEOLOGY

The freshwater aquifer beneath Emeryville includes porous sands and gravels of the Alameda and Temescal alluvial deposits and Merritt Sand. The aquifer is recharged by rainfall on exposed areas of the porous formations between the Southern Pacific right-of-way and the Oakland Hills. Water flows down gradient to the Bay. Fresh water contacts salt water in the vicinity of the Bay margins. The regional groundwater flow direction is westward toward the bay. It is likely local variations of groundwater flow occur due to variations in topography and subsurface lithology.

Depth to groundwater at the Site has been measured between three and eight feet due to seasonal variation. The hydraulic gradient was measured at Technichem, adjacent to the north of the Site, at 0.008. The nearest surface water to the Site is San Francisco Bay, which is approximately 1,000 feet west of the Site.

3.0 ASSESSMENT ACTIVITIES

Based upon the intended work plan, Adanta will conduct the following general assessment activities:

- FIELD PREPARATION ACTIVITIES
 - Project Meeting
 - Preparation of a Health and Safety Plan
 - Application for Boring Permits
 - Notification of Underground Services Alert
 - Notification to Department of Public Health
- FIELD ACTIVITIES
 - Advancing Soil Borings
 - Collection of Soil Samples
 - Collection of Groundwater Samples
 - Advance Soil Vapor Borings
 - Collection of Soil Vapor Samples
 - Laboratory Analyses of Soil Vapor, Soil, and Groundwater Samples
- REPORT PREPARATION

4.0 PREPARATION ACTIVITIES

Various activities will be necessary prior to conducting field work, as described below.

4.1 PROJECT MEETING

The Project Manager and staff intended to be involved in this assessment will have a meeting to discuss specific aspects of the technical issues involved in the project. In addition, the Project Manager will relay client and regulatory concerns to staff in order to help avoid project completion delays.

4.2 HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan (HASP) will be prepared by Adanta prior to commencing field operations. The HASP will address known or potential health and safety hazards that may be present at the Property, and possible precautions to avoid personal injury from the hazards. The HASP will include a map of the Property area with a direct route to the nearest emergency medical facility. Adanta will conduct worker's Health and Safety meetings prior to the commencement of each day's scheduled field activities.

4.3 UTILITY CLEARANCE

At least 72 hours prior to initiating field activities, Adanta will mark the anticipated sampling locations on the surface of the Property in white paint, and will subsequently notify Underground Services Alert (USA). USA will contact its database of utility companies to visit the Property to find if the proposed sample locations will potentially impact subsurface utility lines.

In addition, Adanta will contact a utility locator subcontractor to use surface instrumentation to aid in clearing specific boring locations for other underground lines.

4.4 PERMITS

Appropriate permits for soil and vapor borings will be obtained from Alameda County Environmental Health prior to conducting drilling activities.

4.5 SUBCONTRACTORS

In order to facilitate ensuring that boring locations will not impact subsurface utilities, Adanta will subcontract the services of a utility location company.

Adanta will arrange for a direct-push technology drilling company to meet us onsite to advance the soil vapor and borings and collect soil vapor, soil, and groundwater samples from specified depths. For this project it will be necessary to use a limited access drill rig to conduct boring



activities inside the building and adjacent to the northern boundary due to space limitation. The intended drilling contractor will be Gregg Drilling, Martinez, California

We will also arrange for a State-certified laboratory to analyze the soil vapor, soil, and groundwater samples produced by the field activities. The environmental laboratory will be BC Labs, Bakersfield, California.

5.0 FIELD ACTIVITIES

A total of eight soil borings will be drilled using direct-push sampling equipment to an anticipated total depth of 10 feet below ground surface (bgs). In addition, eight soil vapor borings will be advanced. The vapor locations inside the building will be advanced to just below the concrete surface (subslab), the vapor locations outside the buildings will be advanced to a depth of approximately five feet below surface, assuming that depth does not impact groundwater.

Adanta will collect soil vapor samples from the approximate terminus of each of the vapor borings.

Soil samples will be collected from depths of approximately five and 10 feet in each boring, or at depths with the highest PID reading(s) in each boring. In addition, grab groundwater samples will be collected from each boring. Historical data suggests groundwater should be encountered at a depth of between six and 10 feet.

Specific soil sampling depths may be changed in the field dependent on actual depth to groundwater at the time of sampling.

5.1 SAMPLING LOCATIONS

Historical research reported in the Phase I ESA that was conducted by Adanta in June 2015 revealed three potential sources of contamination. The site adjacent to the north of the Property (former Technichem) has been under regulatory oversight for contaminating soil and groundwater with PCE. Some remediation has been conducted there, however the site remains under DTSC investigative oversight and could be a problematic source of contamination for 1550 Park. Adanta will advance three soil borings near the boundary of the Site with its northern neighbor. In addition, three soil vapor borings will be advanced in the near vicinity of the soil borings. Two of the borings and two vapor points will be located outside the buildings and one boring and one vapor point will be inside the Property building, adjacent to the south wall of the adjacent building.

In the central portion of the Property is a former UST site that obtained regulatory closure. One soil boring will be advanced in the area to find if subsurface conditions have changed. In addition, one soil vapor boring will be advanced in the near vicinity of the soil boring.

A former UST was removed from near the southern boundary of the Site. This site is being considered for regulatory closure based on a continuing commercial use. However, because the Property is being developed as a residential/commercial development, the site will reopen under regulatory scrutiny. Adanta will advance three soil borings in the vicinity of this UST. Two of the borings will be advanced inside the building, if possible. One boring will be advanced near the southwest corner of the Property. Two soil vapor borings will be advanced in the near vicinity of the soil borings inside the building. An additional soil vapor boring will be advanced in the approximate center of the main building.



Adanta will locate borings on the Site in the approximate locations noted on Figure 2 – Sample Location Map.

5.2 SOIL VAPOR SAMPLING

Soil vapor sampling will be conducted following guidance of the Advisory, Active Soil Gas Investigations, California Environmental Protection Agency, Department of Toxic Substances Control, April 2012. If practical, an onsite mobile laboratory may be used to collect and analyze soil vapor samples. If we cannot secure an onsite mobile laboratory, it is anticipated that one-liter Summa canisters will be used to collect soil vapor samples for delivery to the laboratory.

5.3 SOIL SAMPLING

Soil samples will be collected in 1½-inch diameter polypropylene tubes. The sample tubes will be driven into undisturbed soil, Soil samples will be taken by cutting the polypropylene tube at the required depths and sealing each end with plastic caps. The tubes will be labeled with unique identification information and stored in a chest cooled with ice, for delivery to the state certified analytical laboratory. Adanta will follow chain-of-custody protocol.

5.4 GROUNDWATER SAMPLING

Groundwater samples from each soil boring will be collected by placing a temporary PVC well screen into the boring and allowing groundwater to penetrate the well screen. It is anticipated that groundwater will be found between about six and 10 feet below existing surface. Disposable polyethylene bailers will be used to collect groundwater from the well screen. Groundwater samples will be placed into laboratory-cleaned glass containers as required, labeled with unique identification information and placed into an ice-cooled chest for delivery to a State of California-certified analytical laboratory.

5.5 BORING BACKFILL

The borings will be backfilled using Portland® cement, and a reasonable attempt will be made to match the surface material.

5.6 INVESTIGATIVE DERIVED WASTES

Investigative derived wastes (IDW) will be containerized and properly disposed following laboratory analysis.

5.7 LABORATORY ANALYSES

Adanta proposes to analyze the soil sample collected from approximately 5 feet below ground surface and archive other collected samples in the event other analyses become necessary. The



environmental laboratory anticipated to be used for this project is BC Labs, Bakersfield, California.

Both soil and groundwater from borings located near the northern boundary of the Site will be analyzed for:

- Volatile organic compounds (VOCs) using U.S. EPA method 8260b

Soil and groundwater samples from the borings in the vicinity of the former UST in the central portion of the Site will be analyzed for:

- Total petroleum hydrocarbons as gasoline (TPHg) diesel (TPHd) and motor oil (TPHmo) US EPA method 8015m, and VOCs using U.S. EPA method 8260b. Soil samples will be analyzed following silica gel cleanup.

Soil and groundwater samples from the borings in the vicinity of the former UST in the southern portion of the Site will be analyzed for:

- TPHg, TPHd, and TPHmo using US EPA method 8015m, and VOCs using 8260b. Soil samples will be analyzed following silica gel cleanup.

Soil vapor samples will be analyzed for:

- VOCs using US EPA method 8260b

6.0 REPORT

Adanta will produce a report for delivery to the client as well as ACEH describing the scope of work actually conducted in the field. Included in the report will be a section that summarizes obtained laboratory data in comparison to environmental screening levels. The summary section will contain conclusions and recommendations as required. The report will be fundamentally prepared as a Site Conceptual Model, and will contain the appropriate information, tables, and figures that could lead to regulatory closure based upon the State Low-Threat Closure Policy.

7.0 REFERENCES

Environmental Screening Levels, San Francisco Regional Water Quality Control Board, February 2016

Remedial Action Completion Certification, Alameda County Health Care Services, May 6, 1996, regarding 1550 Park Avenue, Emeryville, California 94608, STID #4042

Underground Storage Tank Removal Report, 1550 Park Avenue, Emeryville, CA, P&D Environmental, Inc., March 12, 2010

Soil and Groundwater Investigation Summary Report, Apex Refrigeration, Inc., 1550 Park Avenue, Emeryville, CA, Engineering/Remediation Resource Group, Inc. (ERRG), May 2013

Data Gaps Investigation Summary Report, Apex Refrigeration, Inc. 1550 Park Avenue, Emeryville, California, ERRG, July 2014

Transmittal, December 2014 Groundwater Monitoring, Apex Refrigeration, Inc., Fuel Leak Case No. RO0003069, Emeryville, California, ERRG, January 27, 2015.

Well Destruction Request; Fuel Leak Case No. RO0003069 and Geotracker Global ID T1000002519, Pellegrini Refrigeration & Restaurant Equipment Company, 155 Park Avenue, Emeryville, CA 94608, Alameda County Health Care Services, July 14, 2016

Facility Assessment, Technichem Incorporated, 4245 Halleck Street, Emeryville, CA 94608, EPA ID NO. CAD 981 375 983, California Environmental Protection Agency, Department of Toxic Substances Control, Region 2, June 1993.

Interim Measures Completion Report, Former Technichem Site, 4245 Halleck Street, Emeryville, California, ERRG, May 2011.

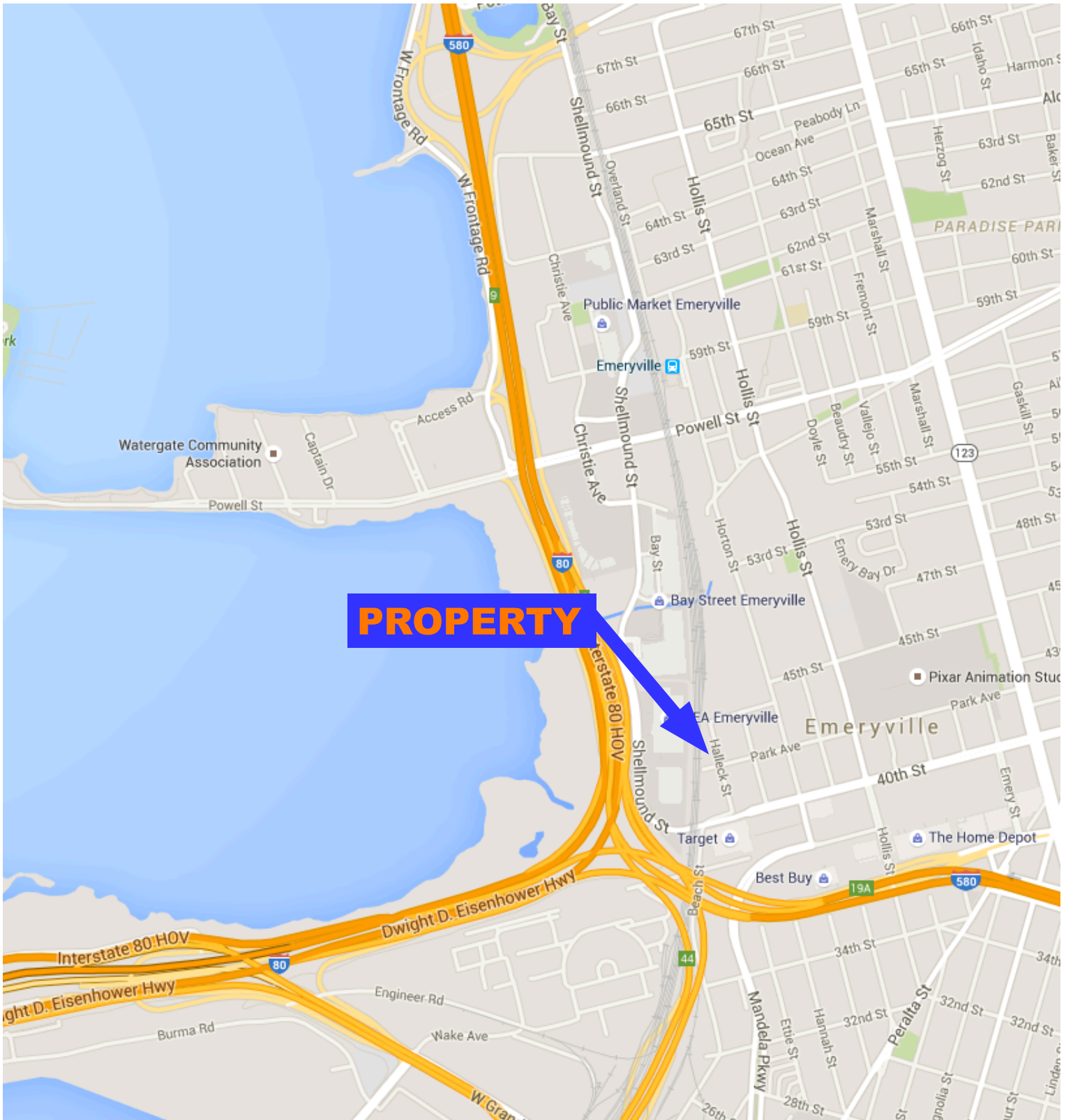
Technical Memorandum, Technichem Site Investigation, January and March 2013, URS.

8.0 LIMITATIONS


In today's technology, no amount of assessment can certify that the Property is completely free of environmental concern. It is possible undocumented or concealed conditions at the Property could exist beyond what was found during this soil, groundwater, and soil vapor assessment. This work plan is an attempt to satisfy the requirements of Alameda County Environmental Health's requirements for subsurface environmental conditions relative to residential developments.



FIGURES

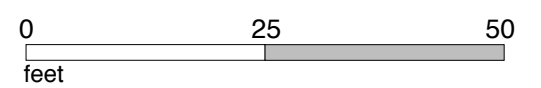


Base: Google Maps

 <p>Adanta</p>	<p>1550 Park Avenue Emeryville, California</p> <p>Project A1293-1</p>	<p>PROPERTY LOCATION MAP</p>	<p>FIGURE 1</p>
---	---	---	----------------------------



Base take from Google Earth



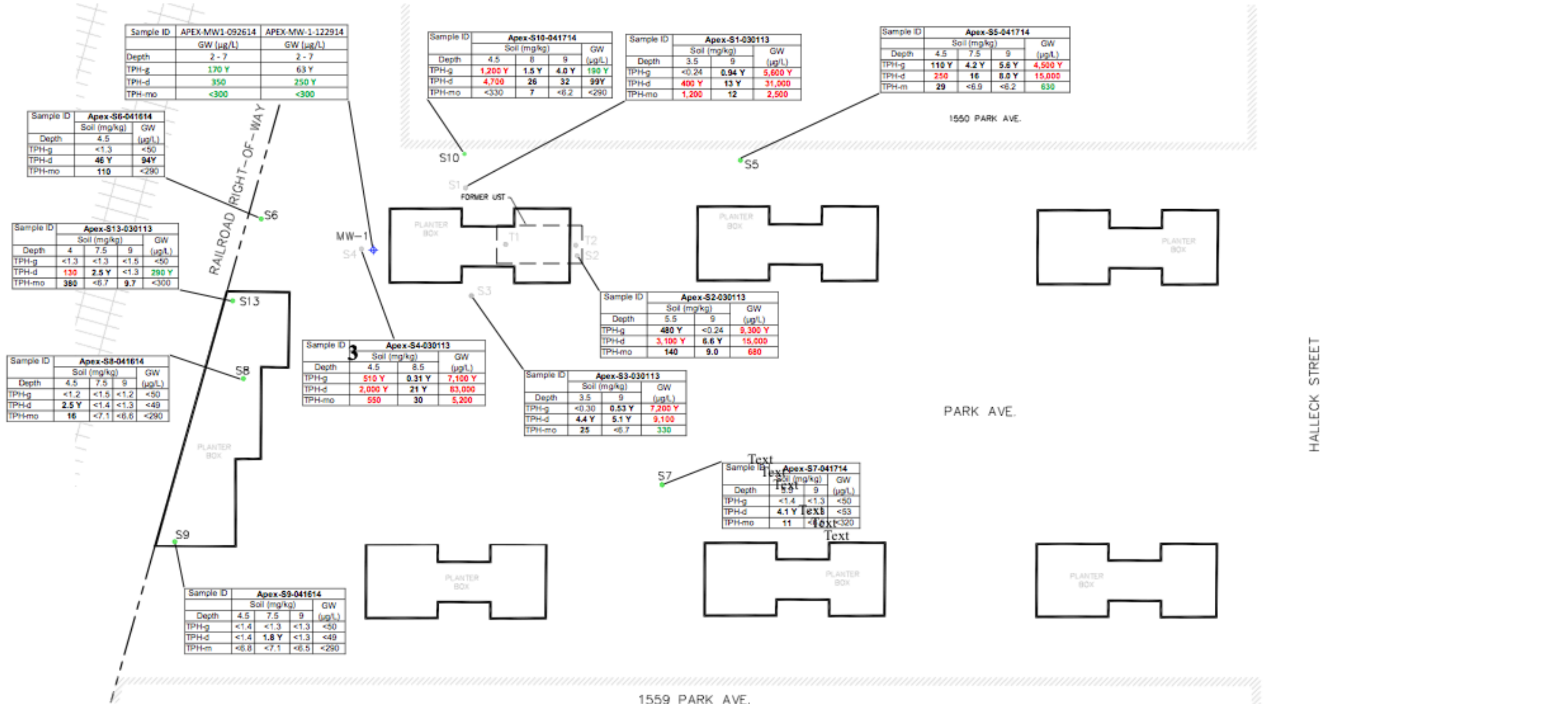
EXPLANATION

- **V8** Vapor Point
- **B8** Soil Boring
- ➔ GW Flow Directions, taken from Technichem and Property historical groundwater data



SAMPLE LOCATION MAP
1550 Park Avenue, Emeryville, CA

FIGURE 2



Sample ID	APEX-MW1-092614		APEX-MW-1-122914	
	GW (µg/L)	GW (µg/L)	GW (µg/L)	GW (µg/L)
Depth	2 - 7	2 - 7		
TPH-g	170 Y	63 Y		
TPH-d	350	250 Y		
TPH-mo	<300	<300		

Sample ID	Apex-S10-041714			
	Soil (mg/kg)			GW (µg/L)
Depth	4.5	8	9	
TPH-g	1,200 Y	1.5 Y	4.0 Y	190 Y
TPH-d	4,700	26	32	99 Y
TPH-mo	<330	7	<6.2	<290

Sample ID	Apex-S1-030113		
	Soil (mg/kg)		GW (µg/L)
Depth	3.5	9	
TPH-g	<0.24	0.94 Y	5,600 Y
TPH-d	400 Y	13 Y	31,000
TPH-mo	1,200	12	2,500

Sample ID	Apex-S5-041714		
	Soil (mg/kg)		GW (µg/L)
Depth	4.5	7.5	9
TPH-g	110 Y	4.2 Y	5.8 Y
TPH-d	250	16	8.0 Y
TPH-m	29	<6.9	<6.2

Sample ID	Apex-S6-041614		
	Soil (mg/kg)		GW (µg/L)
Depth	4.5	9	
TPH-g	<1.3	<1.5	<50
TPH-d	46 Y	94 Y	
TPH-mo	110	<290	

Sample ID	Apex-S13-030113		
	Soil (mg/kg)		GW (µg/L)
Depth	4	7.5	9
TPH-g	<1.3	<1.3	<1.5
TPH-d	130	2.5 Y	<1.3
TPH-mo	380	<6.7	9.7

Sample ID	Apex-S8-041614		
	Soil (mg/kg)		GW (µg/L)
Depth	4.5	7.5	9
TPH-g	<1.2	<1.5	<1.2
TPH-d	2.5 Y	<1.4	<1.3
TPH-mo	16	<7.1	<6.6

Sample ID	Apex-S4-030113		
	Soil (mg/kg)		GW (µg/L)
Depth	4.5	8.5	9
TPH-g	510 Y	0.31 Y	7,100 Y
TPH-d	2,050 Y	21 Y	63,000
TPH-mo	550	30	5,200

Sample ID	Apex-S2-030113		
	Soil (mg/kg)		GW (µg/L)
Depth	5.5	9	
TPH-g	480 Y	<0.24	9,300 Y
TPH-d	3,100 Y	6.6 Y	15,600
TPH-mo	140	9.0	680

Sample ID	Apex-S3-030113		
	Soil (mg/kg)		GW (µg/L)
Depth	3.5	9	
TPH-g	<0.30	0.53 Y	7,200 Y
TPH-d	4.4 Y	5.1 Y	9,100
TPH-mo	25	<6.7	330

Sample ID	Apex-S7-041714		
	Soil (mg/kg)		GW (µg/L)
Depth	5.5	9	
TPH-g	<1.4	<1.3	<50
TPH-d	4.1 Y	<1.3	<53
TPH-mo	11	<6.7	<320

Sample ID	Apex-S9-041614		
	Soil (mg/kg)		GW (µg/L)
Depth	4.5	7.5	9
TPH-g	<1.4	<1.3	<1.3
TPH-d	<1.4	1.8 Y	<1.3
TPH-m	<6.8	<7.1	<6.5

NOTES:

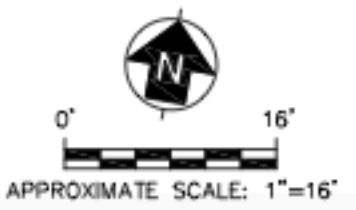
- 1 = SFRWQCB ESLs, Table B-2, Shallow Soil Screening Levels (≤3m bgs), Commercial/Industrial Land Use (groundwater is not a current or potential drinking water resource), December, 2013.
- 2 = SFRWQCB ESLs, Table A-2, Shallow Soil Screening Levels (≤3m bgs), Commercial/Industrial Land Use (groundwater is a current or potential drinking water resource), December, 2013.
- d = diesel
- Depth = feet below ground surface
- ESLs = environmental screening levels
- GW = groundwater
- ID = identification
- mg/kg = milligrams per kilogram
- µg/L = micrograms per liter

- SFRWQCB = San Francisco Bay Regional Water Quality Control Board
- TPH = total petroleum hydrocarbons
- TPH-g = total petroleum hydrocarbons as gasoline
- TPH-d = total petroleum hydrocarbons as diesel
- TPH-mo = total petroleum hydrocarbons as motor oil
- Y = sample resembles chromatographic pattern, which does not resemble standard
- 25 = sample result exceeds the laboratory reporting limit
- 130 = sample result exceeds ESLs where groundwater is a current or potential drinking water resource
- 330 = sample results is less than ESLs for " is not a drinking water resource" but greater than for " is a drinking water resource"

LEGEND:

- S3 ● PREVIOUS SOIL SAMPLE LOCATION
- S5 ● SOIL AND GROUNDWATER SAMPLE LOCATION
- MW-1 ◆ GROUNDWATER MONITORING WELL

	Environmental Screening Levels			
	Soil (mg/kg)		Groundwater (µg/L)	
TPH-g	500 ¹	500 ²	500 ¹	100 ²
TPH-d	110 ¹	110 ²	640 ¹	100 ²
TPH-mo	500 ¹	500 ²	640 ¹	100 ²



Engineering/Remediation Resources Group, Inc. 4585 Pacheco Blvd, Suite 200 Martinez, California 94553 (925) 959-0750	CLIENT: APEX REFRIGERATION, INC. EMERYVILLE, CALIFORNIA	TPH CONCENTRATIONS IN SOIL AND GROUNDWATER		
	LOCATION: 1550 PARK AVENUE EMERYVILLE, CALIFORNIA	DRAWN BY: SC 01/20/15	CHECKED BY: EKO 01/20/15	PROJECT NO. 2013-094

Figure 3

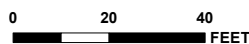


L:\GIS\TechnichemProjects\Fig5_GW_concentrations.mxd 5/29/2013 10:50:27 AM

- Shallow monitoring well screen 5-15 feet bgs
- Deep monitoring well screen 15-25 feet bgs
- ERRG grab groundwater sample location

Building outline

PCE = Tetrachloroethene
TCE = Trichloroethene
VC = Vinyl Chloride
cis-1,2-DCE = cis-1,2-Dichloroethene
Groundwater data shown in micrograms/Liter
RED values exceed MCL



GROUNDWATER MONITORING RESULTS (µg/L) JANUARY & MARCH, 2013

May 2013
28068189

Technichem
Emeryville, California



FIGURE 5

TABLES

TABLE 1
1996 Tank Closure Sampling Data

SOIL SAMPLE ANALYSES
milligrams per kilogram (mg/Kg)

	Date	Location	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Total Lead
2016 ESLs				100	0.44	2.9	1.4	2.3	80
S-1	1/10/94	Excavation Bottom	5	<1.0	<0.005	<0.005	<0.005	<0.005	NA
S-2	1/10/94	Excavation Bottom	5	<1.0	<0.005	<0.005	<0.005	<0.005	9.3
STK 1,2,3	1/10/94	Stockpile cposite	1.5-2	39	0.051	0.086	0.061	0.25	NA
MW-1	6/22/94	Monitoring Well	5.0-5.5	<0.5	<0.005	<0.005	<0.005	<0.015	NA

GROUNDWATER SAMPLE ANALYSES
micrograms per liter (µg/L)

	Date	Location	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Comments
2016 ESLs				200	1	40	13	20	
WS-1	1/12/94	Excavation	unk	2,700	24	24	20	61	pumped and removed
WS-1A	2/16/94	Excavation	unk	690	5.6	5.7	1.6	18	
MW-1	6/28/94	Monitoring Well	unk	<50	<0.5	<0.5	<0.5	<0.5	

unk unknown

NA not applicable

ESL Environmental Screen Level 2016

RED concentration above current ESL

Table 2. Grab Groundwater Analytical Results

Table 2 - Park Avenue Soil and Groundwater Data

Location	Sample Date	Sample Name	Depth (feet bgs)	Total Dissolved Solids (by SM 2540C) (mg/L)	Total Petroleum Hydrocarbons (by EPA Method 8015B) (µg/L)			Purgeable Aromatics (Select VOCs by EPA Method 8260B) (µg/L)					Priority Pollutant Polycyclic Aromatic Hydrocarbons (EPA Method 8270 SIM) (µg/L)																
				Total Dissolved Solids	TPH-gasoline	TPH-diesel ¹	TPH-motor oil ¹	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylenes	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (e) pyrene	Indeno (1,2,3-cd) pyrene	Dibenz (a,h) anthracene	Benzo (g,h,i) perylene
SFRWQCB ESLs ²				NL	100	100	100	5.0	1.0	40	30	20	20	6.1	30	20	3.9	4.6	0.73	8.0	2.0	0.027	0.35	0.056	0.056	0.014	0.056	0.016	0.10
SFRWQCB ESLs ³				NL	500	640	640	1800	27	130	43	100	100	24	30	23	3.9	4.6	0.73	8.0	2.0	0.027	0.35	0.056	0.056	0.014	0.056	0.25	0.10
Water Quality Objectives for Municipal Supply ⁴				500	NL	NL	NL	130/5.0	1.0	150	700	1,750	1,750	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
S1	3/1/2013	Apex-S1-GW-030113	3.5-9.0	NA	5,600 Y	31,000	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.7	0.8	1.9	5.8	2.2	1.2	1.3	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	
S2	3/1/2013	Apex-S2-GW-030113	3.5-9.0	NA	9,300 Y	15,000	680	<0.5	<0.5	<0.5	<0.5	<0.5	<0.7	<0.7	0.9	<0.7	2.4	1.3	1.6	1.7	<0.7	1.0	0.9	<0.7	<0.7	<0.7	<0.7	<0.7	
S3	3/1/2013	Apex-S3-GW-030113	4.0-9.0	NA	7,200 Y	9,100	330	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
S4	3/1/2013	Apex-S4-GW-030113	4.0-9.0	NA	7,100 Y	83,000	5,200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
S5	4/17/2014	APEX-S5-GW-041714	4.5-7.0	NA	4,500 Y	15,000	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S6	4/16/2014	APEX-S6-GW-041614	4.5-6.0	NA	<50	94 Y	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S7	4/17/2014	APEX-S7-GW-041714	5.5-7.0	NA	<50	<53	<320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S8	4/16/2014	APEX-S8-GW-041614	4.5-6.0	NA	<50	<49	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S9	4/16/2014	APEX-S9-GW-041614	4.75-6.0	NA	<50	<49	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S10	4/17/2014	APEX-S10-GW-041714	4.0-6.0	NA	190 Y	<52	<310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S10	4/17/2014	APEX-S14-GW-041714	4.0-6.0	NA	180 Y	99 Y	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
S13	4/17/2014	APEX-S13-GW-041714	4.25-6.0	NA	<50 ⁵	290 Y ⁵	<300 ⁵	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW1	9/26/2014	APEX-MW1-092614	2.0-7.0	1,220	170 Y	350	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW1	9/26/2014	APEX-MW1-092614-FD	2.0-7.0	1,280	160 Y	350	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW1	12/29/2014	APEX-MW1-122914	2.0-7.0	220	63 Y	250 Y	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW1	12/29/2014	APEX-MW1-122914-FD	2.0-7.0	240	58 Y	250 Y	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:
 1 = Analysis run with silica gel cleanup
 2 = SFRWQCB ESL, Table F-1a, "Groundwater Screening Levels (groundwater is a current or potential drinking water resource)," December 2013.
 3 = SFRWQCB ESL, Table F-1b, "Groundwater Screening Levels (groundwater is not a current or potential drinking water resource)," December 2013.
 4 = SFRWQCB Basin Plan, Table 3-5: Water Quality Objectives for Municipal Supply
 5 = prepared and analyzed outside of hold time

Bold = Result is greater than the laboratory reporting limits for the given parameter but does not exceed listed comparison value
Bold Blue = Result exceeds parameter objective in SFRWQCB Basin Plan, Table 3-5: Water Quality Objectives for Municipal Supply
Bold Green = Result is less than SFRWQCB ESL for "is not a drinking water resource" but greater than for "is a drinking water source"
Bold Red = Sample result exceeds the SFRWQCB ESL

bgs = below ground surface
 EPA = U.S. Environmental Protection Agency
 ESLs = environmental screening levels
 MTBE = methyl tert-butyl ether
 NA = not analyzed
 NL = not listed
 SFRWQCB = San Francisco Bay Regional Water Quality Control Board
 TPH = total petroleum hydrocarbons
 VOCs = volatile organic compounds
 Y = sample resembles chromatographic pattern, which does not resemble standard
 <0.30 = sample result is less than the laboratory reporting limit for the given analyte

Table 2. Grab Groundwater Analytical Results

Table 2 - Park Avenue Soil and Groundwater Data

Location	Sample Date	Sample Name	Depth (feet bgs)	Total Dissolved Solids (by SM 2540C) (mg/L)	Total Petroleum Hydrocarbons (by EPA Method 8015B) (µg/L)			Purgeable Aromatics (Select VOCs by EPA Method 8260B) (µg/L)					Priority Pollutant Polycyclic Aromatic Hydrocarbons (EPA Method 8270 SIM) (µg/L)																
				Total Dissolved Solids	TPH-gasoline	TPH-diesel ¹	TPH-motor oil ¹	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylenes	Napthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo (a) anthracene	Chrysene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (e) pyrene	Indeno (1,2,3-cd) pyrene	Dibenz (a,h) anthracene	Benzo (g,h,i) perylene
SFRWQCB ESLs ²				NL	100	100	100	5.0	1.0	40	30	20	20	6.1	30	20	3.9	4.6	0.73	8.0	2.0	0.027	0.35	0.056	0.056	0.014	0.056	0.016	0.10
SFRWQCB ESLs ³				NL	500	640	640	1800	27	130	43	100	100	24	30	23	3.9	4.6	0.73	8.0	2.0	0.027	0.35	0.056	0.056	0.014	0.056	0.25	0.10
Water Quality Objectives for Municipal Supply ⁴				500	NL	NL	NL	130/5.0	1.0	150	700	1,750	1,750	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
S1	3/1/2013	Apex-S1-GW-030113	3.5-9.0	NA	5,600 Y	31,000	2,500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.7	0.8	1.9	5.8	2.2	1.2	1.3	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
S2	3/1/2013	Apex-S2-GW-030113	3.5-9.0	NA	9,300 Y	15,000	680	<0.5	<0.5	<0.5	<0.5	<0.5	<0.7	<0.7	0.9	<0.7	2.4	1.3	1.6	1.7	<0.7	1.0	0.9	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
S3	3/1/2013	Apex-S3-GW-030113	4.0-9.0	NA	7,200 Y	9,100	330	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
S4	3/1/2013	Apex-S4-GW-030113	4.0-9.0	NA	7,100 Y	83,000	5,200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
S5	4/17/2014	APEX-S5-GW-041714	4.5-7.0	NA	4,500 Y	15,000	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S6	4/16/2014	APEX-S6-GW-041614	4.5-6.0	NA	<50	94 Y	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S7	4/17/2014	APEX-S7-GW-041714	5.5-7.0	NA	<50	<53	<320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S8	4/16/2014	APEX-S8-GW-041614	4.5-6.0	NA	<50	<49	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S9	4/16/2014	APEX-S9-GW-041614	4.75-6.0	NA	<50	<49	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S10	4/17/2014	APEX-S10-GW-041714	4.0-6.0	NA	190 Y	<52	<310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S10	4/17/2014	APEX-S14-GW-041714	4.0-6.0	NA	180 Y	99 Y	<290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S13	4/17/2014	APEX-S13-GW-041714	4.25-6.0	NA	<50 ⁵	290 Y ⁵	<300 ⁵	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW1	9/26/2014	APEX-MW1-092614	2.0-7.0	1,220	170 Y	350	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW1	9/26/2014	APEX-MW1-092614-FD	2.0-7.0	1,280	160 Y	350	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW1	12/29/2014	APEX-MW1-122914	2.0-7.0	220	63 Y	250 Y	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW1	12/29/2014	APEX-MW1-122914-FD	2.0-7.0	240	58 Y	250 Y	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
 1 = Analysis run with silica gel cleanup
 2 = SFRWQCB ESL, Table F-1a, "Groundwater Screening Levels (groundwater is a current or potential drinking water resource)," December 2013.
 3 = SFRWQCB ESL, Table F-1b, "Groundwater Screening Levels (groundwater is not a current or potential drinking water resource)," December 2013.
 4 = SFRWQCB Basin Plan, Table 3-5: Water Quality Objectives for Municipal Supply
 5 = prepared and analyzed outside of hold time

Bold = Result is greater than the laboratory reporting limits for the given parameter but does not exceed listed comparison value
Bold Blue = Result exceeds parameter objective in SFRWQCB Basin Plan, Table 3-5: Water Quality Objectives for Municipal Supply
Bold Green = Result is less than SFRWQCB ESL for "is not a drinking water resource" but greater than for "is a drinking water source"
Bold Red = Sample result exceeds the SFRWQCB ESL

bgs = below ground surface
 EPA = U.S. Environmental Protection Agency
 ESLs = environmental screening levels
 MTBE = methyl tert-butyl ether
 NA = not analyzed
 NL = not listed
 SFRWQCB = San Francisco Bay Regional Water Quality Control Board
 TPH = total petroleum hydrocarbons
 VOCs = volatile organic compounds
 Y = sample resembles chromatographic pattern, which does not resemble standard
 <0.30 = sample result is less than the laboratory reporting limit for the given analyte

TABLE 3 - Technichem Groundwater Data

Table 3

Summary of Detected VOCs in Groundwater (ug/L)

Technichem Incorporated Site Investigation

May 2013

Sample Name	Date	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	Vinyl chloride	trans-1,2-Dichloroethene
MCL		5.0	5.0	6.0	0.50	100
GW-4	1/4/2013	<0.50	<0.50	<0.50	<0.50	<0.50
GW-5	1/4/2013	<0.50	<0.50	<0.50	<0.50	<0.50
GW-6	1/4/2013	<0.50	<0.50	<0.50	<0.50	<0.50
GW-7	1/4/2013	<0.50	<0.50	<0.50	<0.50	<0.50
GW-8	1/4/2013	<0.50	<0.50	0.98	<0.50	<0.50
GW-12	1/4/2013	14	16	14	<0.50	<0.50
GW-90 ¹	1/4/2013	14	15	13	<0.50	<0.50
GW-13	3/18/2013	9900	42	21	6.8	0.17 J
GW-91 ²	3/18/2013	12000	42	21	7.2	<0.50

Notes

µg/L = micrograms per liter

Shaded values are above their respective MCLs

MCL = State of California Established Maximum Contaminant Level

VOCs = Volatile Organic Compounds

< = not detected at concentrations greater than the reporting limit shown

¹ = GW-90 is field duplicate of GW-12

² = GW-91 is field duplicate of GW-13

J = Value is estimated

APPENDIX A
1996 CASE CLOSURE SUMMARY

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

May 6, 1996

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. John Pelligrini
Pelligrini & Refrigeration
1550 Park Avenue
Emeryville, California 94608

RE: Pelco Distributors
1550 Park Avenue, Emeryville, California 94608
STID # 4042

Dear Mr. Pelligrini:

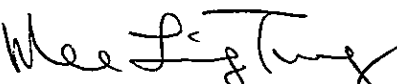
This letter confirms the completion of site investigation and remedial action for the 1,500 gallon gasoline underground storage tank removed on January 10, 1994 at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the gasoline underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721 (e). If a change in the present land use is proposed, the property owner must promptly notify this agency.

Please contact Susan L. Hugo at (510) 567-6780 if you have any questions regarding this matter.

Sincerely,


Mee Ling Tung, Director

Enclosure

c: Gordon Coleman, Acting Chief, Environmental Protection - files
Kevin Graves, RWQCB
Mike Harper, SWRCB (with enclosure)

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> <u>(include units)</u>	<u>Action (Treatment</u> <u>of Disposal w/destination)</u>	<u>Date</u>
Tank	1,500 gal	Disposed at H & H Service Co. San Francisco, CA	1/10/94
Piping	NA		
Free Product	NA		
Soil	20 yards	Redwood Landfill, Novato, CA	3/10/94
Groundwater	110 gal purged water from the excavation	Unknown	
Barrels	NA		

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		* Water (ppb)	
	Before	After	Before	After
TPH (Gas)	ND<1.0	-	2,700	ND<50
Benzene	ND<0.005	-	24	ND<0.5
Toluene	ND<0.005	-	24	ND<0.5
Xylene	ND<0.005	-	61	ND<0.5
Ethylbenzene	ND<0.005	-	20	ND<0.5
Lead	9.3	-	-	-

* Grab groundwater sample from the excavation

Comments (Depth of Remediation, etc.):

One 1,500 gallon gasoline underground storage tank was removed on January 10, 1994. Inspection of the tank during the removal activities revealed one small pin hole in the middle of the UST. Strong hydrocarbon staining and odor was present in the excavated soil. A sheen was also observed in the groundwater found in the excavation.

The composite soil sample (from three discreet stockpile samples) showed up to 39 ppm TPH gasoline, 0.05 ppm benzene, 0.086 ppm toluene, 0.061 ppm ethyl benzene, and 0.25 ppm xylene. However, the samples (S-1 & S-2) collected from the native soil beneath the ends of the UST at five feet depth did not detect any petroleum hydrocarbon contamination.

On January 11, 1994, approximately 110 gallons of water was removed from the excavation. A grab water sample was collected the next day (January 12, 1994) and the analytical results showed petroleum hydrocarbon concentrations as presented above. On February 16, 1994, an additional grab groundwater sample was collected to verify the previous results. The second grab groundwater sample revealed petroleum hydrocarbon contamination up to 690 ppb TPH gasoline, 5.6 ppb benzene, 5.7 ppb toluene, 1.6 ppb ethyl benzene, and 18 ppb xylenes.

Leaking Underground Storage Tank Programs

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does corrective action protect public health for current land use? **YES**
Site management requirements: **NA**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **NO** (pending case closure)
Number Decommissioned: **0** Number Retained: **1**

List enforcement actions taken: **None**

List enforcement actions rescinded: **None**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Susan L. Hugo** Title: **Sr. Hazardous Materials Specialist**
Signature: *Susan L. Hugo* Date: *11/28/95*

Reviewed by
Name: **Dale Klettke** Title: **Hazardous Materials Specialist**
Signature: *Dale Klettke* Date: *11/30/95*

Name: **Thomas Peacock** Title: **Sup. Hazardous Materials Specialist**
Signature: *Thomas Peacock* Date: *11-29-95*

VI. RWQCB NOTIFICATION

Date Submitted to RB: *12/1/95* RB Response: *Approved*
RWQCB Staff Name: **Kevin Graves** Title: **Water Resources Control Engineer**
Kevin Graves Date: *12/2/95*

VII. ADDITIONAL COMMENTS, DATA, ETC.

On June 22, 1994, one shallow groundwater monitoring well was installed within 10 feet of the former tank area in the assumed downgradient flow direction (based on the regional groundwater flow in the area and the groundwater data collected from two neighboring sites - Sherwin Williams located at 1450 Sherwin Avenue & City of Emeryville located at 1333 Park Avenue). The boring was drilled to a total depth of 13.5 feet and the well was screened at approximately 5 feet to 13 feet depth. Both soil and groundwater samples collected during the well construction activities did not detect any contamination. The well was sampled again in February 10, 1995 and showed no detectable concentration of petroleum hydrocarbon.

Leaking Underground Storage Tank Program

Based on the data submitted for the referenced site, the potential beneficial uses of the groundwater do not appear to be impacted by the release associated with the UST. Therefore, this office recommends that no further work is required regarding the former gasoline UST at the subject site.



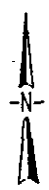
EMERYVILLE
Piles

SITE

OAKLAND

LEGEND

NOTE: REFERENCE: USGS 7.5 MINUTE
SERIES QUADRANGLE MAP
OAKLAND WEST, CALIFORNIA
PHOTOREVISED 1980



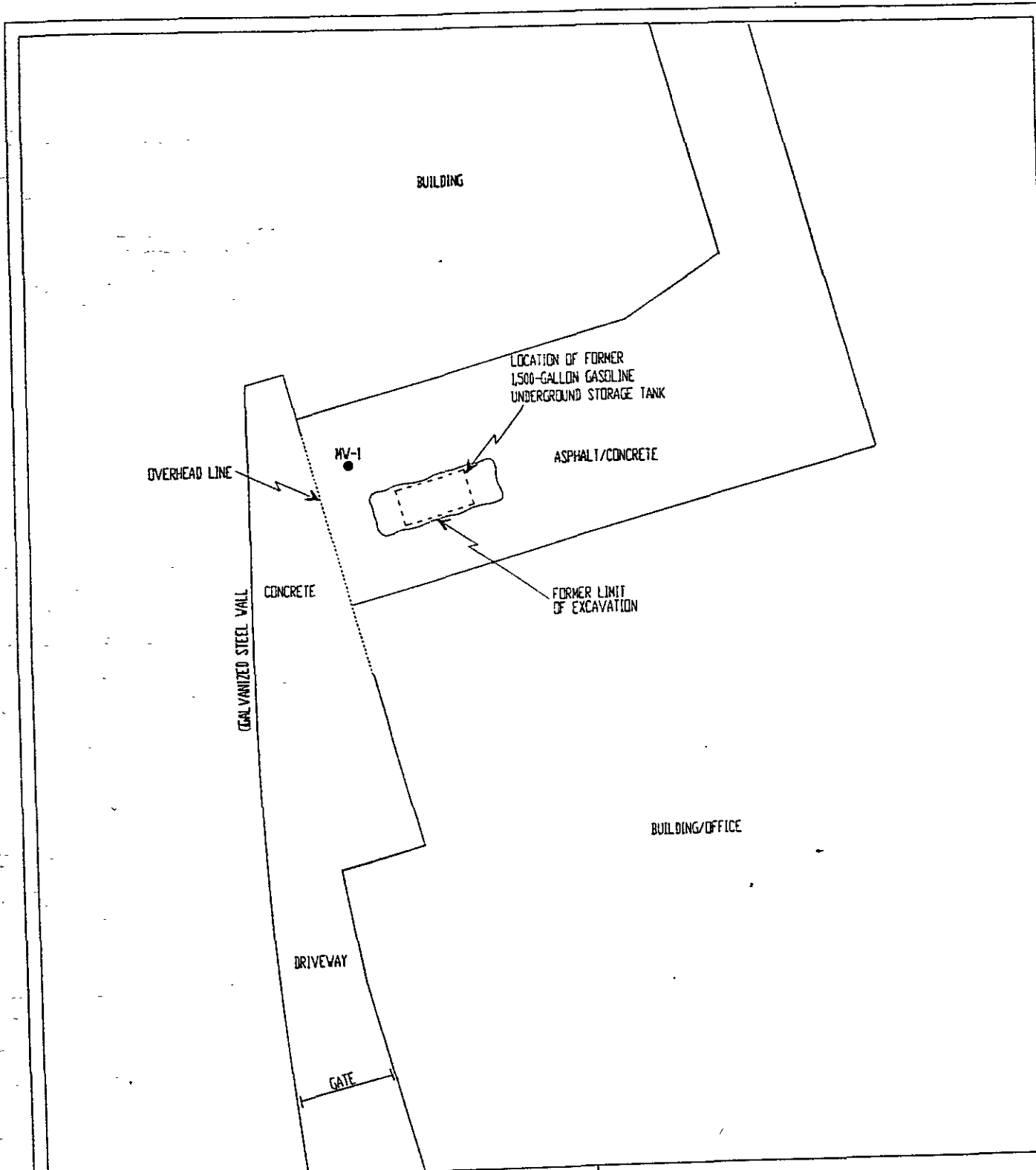
0 2,000
SCALE IN FEET

TANK PROTECT ENGINEERING

SITE VICINITY MAP

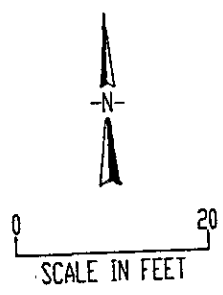
PELEGRINI REFRIGERATION
& RESTAURANT EQUIPMENT CO.
1550 PARK AVENUE
EMERYVILLE, CA 94608

DATE	6/30/94
FIGURE	1
FILE #	294-0
DRAWN BY	TH
CHECKED BY	RA



LEGEND

MW-1 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL



TANK PROTECT ENGINEERING

SITE PLAN

PELEGRINI REFRIGERATION & RESTAURANT EQUIPMENT CO. 1550 PARK AVENUE EMERYVILLE, CA 94608	DATE	6/30/94
	FIGURE	2
	FILE #	294-2
	DRAWN BY	TH
	CHECKED BY	LH

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
(ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total Lead
S-1	01/10/94	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA ²
S-2	01/10/94	5.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	9.3
STK-1,2,3	01/10/94	1.5-2.0	39.0	0.051	0.086	0.061	0.250	NA

¹ PARTS PER MILLION

² NOT ANALYZED

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ppb¹)

Sample ID Name	Date	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes
WS-1	01/12/94	2,700	24	24	20	61
WS-1A	02/16/94	690	5.6	5.7	1.6	18

¹ PARTS PER BILLION

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
 (ppm¹)

Sample ID Name	Date	Depth (Feet)	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes
MW-1	06/22/94	5.0-5.5	<.500	<.0050	<.0050	<.0050	<.015

PARTS PER MILLION

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
 (ppb¹)

Sample ID Name	Date	TPHG	Benzene	Toluene	Ethyl-Benzene	Xylenes
MW-1	06/28/94	<50	<0.50	<0.50	<0.50	<0.50
MW-2	06/28/94	<50	<0.50	<0.50	<0.50	<0.50

¹ PARTS PER BILLION

² TRIP BLANK



LOG NUMBER: 5217
 DATE SAMPLED: 02/10/95
 DATE RECEIVED: 02/10/95
 DATE ANALYZED: 02/18/95
 DATE REPORTED: 02/22/95

CUSTOMER: Tank Protect Engineering
 REQUESTER: Jeff Farhoomand
 PROJECT: No. 294-021095, Pel, 1550 Park Avenue

Blank per John Mulvaney 3/22/95

Sample Type: Water

Method and Constituent:	Units	MW-1		MW-2 <i>Yif</i>		Method Blank	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/l	ND	50	ND	50	ND	50
Modified EPA Method 8020 for:							
Benzene	ug/l	ND	0.50	ND	0.50	ND	0.50
Toluene	ug/l	ND	0.50	ND	0.50	ND	0.50
Ethylbenzene	ug/l	ND	0.50	ND	0.50	ND	0.50
Xylenes	ug/l	ND	1.5	ND	1.5	ND	1.5

QC Summary:

% Recovery: 118
 % RPD: 4.1

Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
 Quality Assurance/Quality Control Manager

LOG OF EXPLORATORY BORING

PROJECT NUMBER 294

BORING NO. MW-1

PROJECT NAME 1550 Park Avenue, Emeryville, CA

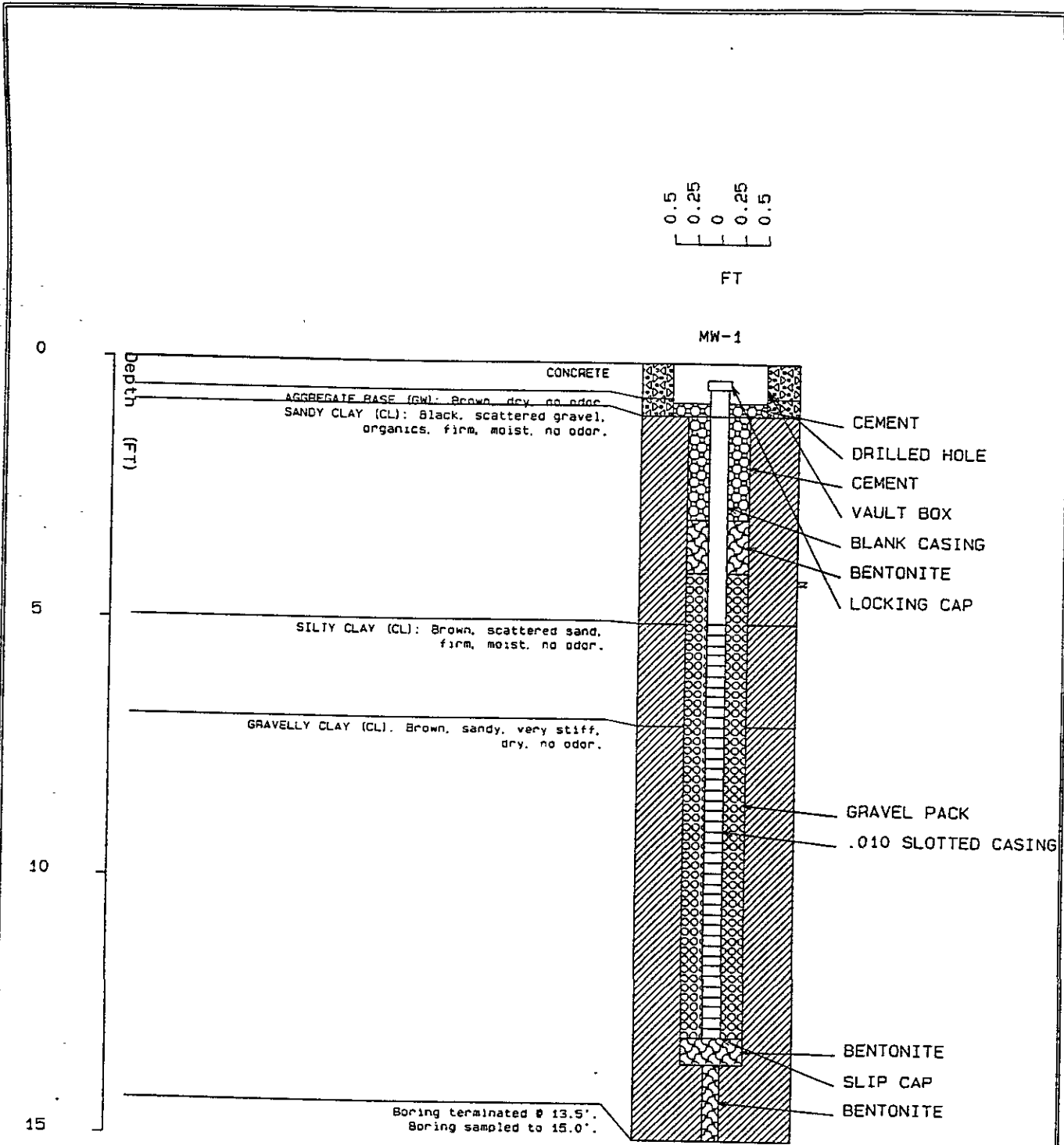
BY LNH

DATE 6/22/94

SURFACE ELEV. 8 FT

RECOVERY (FT/FT)	OVA (PPM)	PENETRA- TION (BLOWS/FT)	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
				1			CONCRETE
				2			AGGREGATE BASE (GW): Brown, dry, no odor.
				3			SANDY CLAY (CL): Black, scattered gravel, organics, firm, moist, no odor.
			N	4			
1.5/1.5	16	6		5			SILTY CLAY (CL): Brown, scattered sand, firm, moist, wet at 5.5', no odor.
				6			
				7			
				8			GRAVELLY CLAY (CL): Brown, sandy, very stiff, dry, no odor.
				9			
1.5/1.5	-	24		10			
				11			
				12			
				13			Boring terminated @ 13.5'. Boring sampled to 15.0'.
				14			
1.0/1.5	-	22		15			

REMARKS: Boring drilled with continuous-flight, hollow-stem,
8-inch O.D. augers. Samples collected in a 2.0-inch
I.D. California sampler.



LEGEND

Static Water Level

GW

CL

WELL ID : MW-1

1550 PARK AVENUE, EMERYVILLE, CA

TANK PROTECT ENGINEERING

Figure :