

Phase I

6 January 1993

**ENVIRONMENTAL ASSESSMENT  
FOR THREE PARCELS LOCATED IN  
OAKLAND, CALIFORNIA**

**Prepared for:**

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Toronto, Ontario, Canada M4P2M6**

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**Project No. A922503**

6 January 1993  
A922503

Terracorp Properties Inc.  
1092 Mount Pleasant Road  
Toronto, Ontario, Canada M4P2M6

Attention: Mr. Jack Pasht

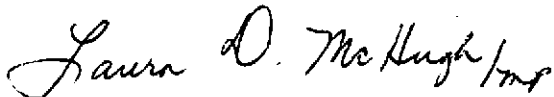
**SUBJECT: RESULTS OF AN ENVIRONMENTAL ASSESSMENT FOR THREE  
PARCELS LOCATED IN OAKLAND, CALIFORNIA**

Dear Mr. Pasht:

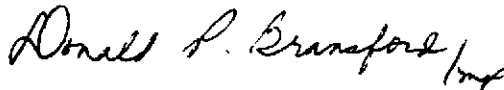
Applied Geosciences Inc. is pleased to submit two copies of this report in general accordance with Attachment 1 to our contract dated 10 December 1992.

If you have any questions regarding the material presented in this report, please feel free to contact either of us at your convenience.

Very truly yours,  
APPLIED GEOSCIENCES INC.



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## TABLE OF CONTENTS

	<u>Page No.</u>
<b>1.0 INTRODUCTION</b> .....	1
<b>2.0 OBJECTIVE</b> .....	1
<b>3.0 SCOPE</b> .....	1
<b>4.0 SITE DATA</b> .....	3
4.1 Site Setting .....	3
4.2 Geology and Hydrogeology .....	3
4.3 Historical Review .....	4
4.3.1 Historical Aerial Photographs .....	4
4.3.2 Sanborn Fire Insurance Map Review .....	6
4.3.3 Business Directories .....	7
4.4 Previous Environmental Work .....	7
4.5 Site Reconnaissance .....	8
4.6 Site Vicinity Reconnaissance .....	8
<b>5.0 REGULATORY AGENCY REVIEW</b> .....	9
5.1 Regulatory Agency Lists .....	9
5.2 Regulatory Agency Files .....	10
5.2.1 Oakland Fire Department .....	10
5.2.2 ACHCSA .....	10
5.2.3 Building Department .....	11
5.2.4 RWQCB .....	11
<b>6.0 DISCUSSION</b> .....	13
6.1 Historical Site Usage .....	13
6.2 Present Site Usage .....	14
6.3 Present Site Vicinity Usage .....	14
<b>7.0 CONCLUSIONS</b> .....	15
<b>8.0 RECOMMENDATIONS</b> .....	16
<b>9.0 REFERENCES</b> .....	17

## **LIST OF TABLES, FIGURES, AND APPENDICES**

**Table 1. Regulatory Agency List Sites**

**Figure 1. Location Map**

**Figure 2. Site Plot Plan**

**Figure 3. Photoprint of Site Features**

**Figure 4. Photoprint of Site Features**

**Figure 5. Photoprint of Site Features**

**Appendix A. James M. Montgomery Consulting Engineers, Inc. Tank Removal Report Information**

**ENVIRONMENTAL ASSESSMENT  
FOR THREE PARCELS LOCATED IN  
OAKLAND, CALIFORNIA**

**1.0 INTRODUCTION**

This report presents the results of an environmental assessment conducted for three parcels of land located on the block bounded by Webster, Harrison, 19<sup>th</sup> Street, and 17<sup>th</sup> Street (site) in the city of Oakland, California (Figure 1). This assessment was conducted by Applied Geosciences Inc. during December 1992 in general accordance with Attachment 1 to the contract dated 10 December 1992 between Terracorp Properties Inc. (Terracorp) and Applied Geosciences Inc. The work was conducted at the request and authorization of Mr. Jack Pasht of Terracorp in conjunction with the possible purchase of the site. The site is currently occupied by parking lots in the downtown area of Oakland, California.

**2.0 OBJECTIVE**

The objective of the environmental assessment summarized in this report was to assess the likelihood that potentially hazardous materials, excluding asbestos, were present at the site.

**3.0 SCOPE**

The scope of work that was used to meet the objective consisted of four tasks, which included the following:

- **Task 1: Data Review**
  - Discussions with readily available personnel familiar with the site. Site drawings and plans were not readily available;
  - Review of readily available Oakland Fire Department (Fire Department) and/or Alameda County Health Care Services Agency (ACHCSA) files for the site and facilities located immediately adjacent to the site (immediate site vicinity);
  - Review of readily available files maintained by the Oakland Building Department (Building Department) for the site;
  - Review of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), list for unauthorized releases of fuel hydrocarbons within a 1-mile radius of the site (site vicinity);
  - Review of the RWQCB North Bay Toxics List for unauthorized releases of non-fuel hazardous materials within the site vicinity;

- Review of the California Environmental Protection Agency, Department of Toxic Substances Control (Cal-EPA) Cal-Sites Annual Work Plan, and U.S. Environmental Protection Agency (U.S. EPA) National Priorities List for State and Federal Superfund sites, respectively, located within the site vicinity;
  - Review of the California Integrated Waste Management Board (CIWMB) and Solid Waste Information Systems (SWIS) lists for active, inactive, and abandoned landfills within the vicinity of the site;
  - Review of the U.S. EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), California Office of Planning and Research (OPR) State of California Hazardous Waste and Substances Sites (Cortese) lists for sites located within the vicinity of the site;
  - Review of the Cal-EPA Cal-Sites list for sites located adjacent to the site;
  - Review of readily available California Division of Oil and Gas (CADOG) records regarding present or past oil field activities within the vicinity of the site; and
  - Review of information regarding the hydrogeology of the site and site vicinity using selected references.
- **Task 2: Site Reconnaissance and Site Vicinity Reconnaissance**
    - A site reconnaissance to look for evidence of present or past operations that use or may have used potentially hazardous materials; and
    - A site vicinity reconnaissance to compile a list of companies/businesses in the immediate site vicinity (and on a selective basis in the site vicinity) that are reported or appear to use or produce hazardous substances that in our judgment may impact the site.
- **Task 3: Historical Review**
    - Review of readily available historical aerial photographs to provide information on historical land use as it relates to potential sources of hazardous waste; and
    - Review of readily available information in Sanborn Fire Insurance Maps of the site.
- **Task 4: Data Evaluation, Report Compilation, and Management**
    - Evaluation of the data and preparation of this report, which includes a summary of the work performed, pertinent findings, conclusions regarding the likelihood

that potentially hazardous materials are present at the site, and recommendations for further work, if warranted.

#### **4.0 SITE DATA**

In the following discussion, reference to the "site" includes the parcel located at the eastern corner of the intersection of 19<sup>th</sup> Street and Harrison (Parcel 1) and the two adjacent parcels located on the east side of Webster between 17<sup>th</sup> Street and 19<sup>th</sup> Street (Parcels 2 and 3) located in Oakland, California (Figures 1 and 2). The "immediate site vicinity" includes properties with a common property boundary with the site. The "site vicinity" includes the area within an approximate 1-mile radius of the site, as shown in Figure 1. The term "hazardous" is used in a manner that is generally consistent with that promulgated in Title 22, Division 4.5, Chapter 10 of the California Code of Regulations (CCR). The terms "hazardous material," "hazardous waste," and "chemicals" are used interchangeably and no legal distinction is implied between the terms as used herein.

#### **4.1 Site Setting**

The site consists of two parking lots that share a common border in the southwest corner of Parcel 1. However, Parcels 2 and 3 are elevated approximately four feet above Parcel 1 and the are separated from Parcel 1 by a retaining wall.

Parcel 1 is currently bounded on the north and east by 19<sup>th</sup> Street and Harrison, respectively (Figure 2). South and west of Parcel 1 are parking lots and a restaurant/office/retail building elevated above Parcel 1 and separated from Parcel 1 by retaining walls.

Parcels 2 and 3 are bound on the west by Webster and south by an apartment building. North and east of Parcels 2 and 3 are parking lots (Figure 2).

#### **4.2 Geology and Hydrogeology**

The site is located within an area dominated by deposition during Recent geologic time within the San Francisco Bay area of the Coast Range Geomorphic Province. The Coast Range Geomorphic Province is characterized by north-northwest-trending mountain ranges and valleys formed by oblique compression along the San Andreas fault and associated strike-slip faults.

The area of the site has been mapped as being underlain by "beach (?) and dune deposits" of the Merritt Sand. This material has a thickness of up to 50 feet and is reported to overlie peaty mud deposits that are more than 40,000 years old. The Merritt Sand is reported to be characterized by loose, well-sorted, fine- to medium-grained sand with minor amounts of silt. The sands are reported to extend southwest of the site, under San Francisco Bay (Helley, et al., 1979).

Groundwater has been reported to have been encountered in the vicinity of the site at depths of approximately 18 to 24 feet below the ground surface, based on information reviewed at the RWQCB. From the material reviewed, the regional groundwater gradient is reported to have

slope to the east at the former Chevron facility located approximately 0.1 mile south of the site (no. 39 on Figure 1). The groundwater gradient in the area of the site is interpreted to slope towards Lake Merritt, to the east. Present and potential beneficial uses of the groundwater beneath the site have been designated as municipal supply, industrial process water supply, industrial service supply, and agricultural supply (RWQCB, 1986).

### 4.3 Historical Review

#### 4.3.1 Historical Aerial Photographs

Readily available historical aerial photographs of the site were reviewed to assess the historical land uses of the site and site vicinity that could have been sources of potentially hazardous materials. Pacific Aerial Survey (PAS), located in Oakland, California, supplied aerial photographs used in this assessment. The available historical aerial photographs of the site from PAS dated back to 1947. The following paragraphs present interpretation of observations from review of the following photographs:

<u>Date</u>	<u>Scale</u>
24 March 1947	1:20,000
14 April 1950	1:7,200
14 August 1953	1:10,000
3 May 1957	1:12,000
25 July 1963	1:36,000
24 April 1973	1:12,000
14 September 1979	1:12,000
21 June 1983	1:12,000
30 March 1988	1:12,000
8 April 1992	1:12,000

#### 1947

Observations of the 1947 aerial photograph indicated that Parcel 1 was occupied by a circular building with what is interpreted to be a paved parking area surrounding the building. An L-shaped building occupied the southwest corner of Parcel 1. Parcels 2 and 3 appeared to be paved and used for automobile parking. The lots adjacent to the site were occupied by what are interpreted to be multistory buildings. The vicinity of the site was observed to be a mixture of multistory buildings and parking lots. What are interpreted to be gasoline stations were present at the southwest corner of 17<sup>th</sup> Street and Harrison and the northwest corner of 19<sup>th</sup> Street and Webster. The present Snow Park was observed present northeast of the site.

Changes observed in the photographs the site and site vicinity in subsequent years included the following:



1950

No significant changes from the 1947 photograph observed.

1953

The building previously observed on the lot south of Parcel 1 was no longer present and the lot was used for parking.

1957

No significant changes from the 1953 photograph observed.

1963

The building observed on the lot north of Parcel 2 was no longer present and the lot was used for parking. The Kaiser Center located north-northeast of the site was present.

1969

The structures previously observed on Parcel 1 were no longer present and the site was used for parking. The second lot south of Parcel 1 was observed to be used for parking. A building was observed to be under construction on the northeast corner of 17<sup>th</sup> Street and Webster, south of the site.

1973

A small rectangular structure had been constructed on the eastern corner of Parcel 1. Automobiles were also observed to be parked on this parcel. The gasoline station interpreted to have been present at the southwest corner of 17<sup>th</sup> Street and Harrison was no longer observed.

1979

What is interpreted to be a concrete pad was observed west of the small structure located on Parcel 1.

1983 and 1988

The high-rise building presently located across Harrison from the site at the southeast corner of 19<sup>th</sup> Street and Harrison was observed present in the 1983 photograph. The parking structure south of this building and the current World Savings Center located across 19<sup>th</sup> Street from the site at the northwest corner of 19<sup>th</sup> Street and Harrison was observed present in the 1988 photograph.

1992

The small rectangular structure previously observed on Parcel 1 was no longer present.

#### 4.3.2 Sanborn Fire Insurance Map Review

A request for maps was made to Sanborn Mapping and Geographic Information Service (Sanborn) of Pelham, New York. Sanborn provided maps dated 1899, 1903, 1911, 1950, and 1969. In general, the maps did not provide information judged by Applied Geosciences Inc. to indicate the presence of hazardous materials at the site in the past. A summary of the information interpreted from the maps provided is presented below. Historical site addresses obtained from the maps are also listed below.

1899

Parcels 1 and 3 are interpreted to have been occupied by residential structures with smaller buildings located along the back boundaries. Parcel 2 is interpreted to have been vacant. The majority of the vicinity of the site is interpreted to have been residential.

**Parcel 1 addresses - 1389 and 1395 Harrison**

**Parcel 2 address - none**

**Parcel 3 address - 1386 Webster**

1903

No changes interpreted for Parcels 1 and 3. Parcel 2 is interpreted to have been occupied by a residential structure.

No changes to Parcel 1 and 3 addresses

**Parcel 2 address - 1390 Webster**

1911

No significant changes interpreted, except that the lot north of Parcel 2 had a residential structure present.

No change to Parcel 1, 2, and 3 addresses

1950

Parcel 1 had a circular structure noted to be a restaurant with an L-shaped building at the southwest corner noted to be an office and water closet (noted as "W.C." on the map). Parcels 2 and 3 were noted to be used for parking with a small structure noted as an office along Webster.

Parcel 1 address - 1833 Harrison and 301 19<sup>th</sup> Street  
Parcels 2 and 3 address - 1750 Webster

1969

Each of the site parcels was noted to be used for parking.

No change to Parcel 1, 2, and 3 addresses

#### 4.3.3 Business Directories

The 1936 Reverse Directory, Polk Business Directory, and Haines Business Directory were reviewed at the Oakland Public Library. Directories for 1936, 1967, 1974, 1979, 1984, and 1990 were reviewed. Directories between 1936 and 1967 were not reviewed since they were not available with listings organized by address. The information reviewed is summarized below.

1936 Only names for the residential occupants  
1967 No listing for site except for 1746 Webster - Douglas Motors Parking Lot  
1969 1833 Harrison - Avis Rent A Car  
~~1746 Webster - Douglas Motors Parking Lot~~ ?  
1974 No listing for site  
1979 No listing for site  
1984 1833 Harrison - Thrifty Rent A Car  
1990 No listing for site

#### 4.4 Previous Environmental Work

A report documenting tank removal activities conducted at Parcel 1 (Montgomery, 1991) supplied by Terracorp was reviewed by Applied Geosciences Inc. In September 1991, James M. Montgomery Consulting Engineers, Inc. (Montgomery) removed a 5,000-gallon underground storage tank (underground tank) and associated fuel piping and dispenser reported to have been used to store unleaded gasoline by the previous car rental agencies and a two-stage wash-rack clarifier (clarifier) from Parcel 1 (Montgomery, 1991). These features were formerly located in the northeast portion of Parcel 1, in the area utilized by the car rental agencies (Appendix A). A small waste oil tank was also thought to have existed at the site based on the presence of what was interpreted by Montgomery to be two underground tank vent lines. This waste oil tank was not encountered during the tank removal activities and is not believed by Montgomery to have existed at the site.

The clarifier was constructed from reinforced concrete and reported to have been used to clarify wash water generated by washing of cars prior to disposal to the sewer. The clarifier was reported to have been in good condition at the time of removal. Soil beneath the clarifier was reported to have had a light greenish gray staining. The staining was judged by Montgomery to not be the result of petroleum hydrocarbons. A soil sample collected from beneath the

clarifier was collected and not reported to contain detectable concentrations of gasoline, diesel, benzene/toluene/xylene/ethylbenzene (BTXE), or oil and grease.

The underground tank was observed by Montgomery to be constructed of steel with a tar coating. The underground tank was reported to appear structurally competent. Groundwater was not encountered during tank removal activities. The tank excavation extended to a depth of approximately 18 feet below the ground surface. The soil in the vicinity of the underground tank, product piping, and dispenser was not reported to have been stained. Two soil samples were collected beneath the former underground tank location and one soil sample was collected the former fuel dispenser location. The soil samples were not reported to contain detectable concentrations of gasoline or BTXE. Lead was reported in the soil samples, but at concentrations judged by Applied Geosciences Inc. to represent background concentrations of lead within the soil.

Copies of site maps and tabulated analytical results presented in the Montgomery tank removal report (Montgomery, 1991) are included in Appendix A. *gh*

#### 4.5 Site Reconnaissance

A site reconnaissance was conducted on 15 December 1992 by personnel of Applied Geosciences Inc. The site was observed to be used as pay parking lots (Figures 3A and 3B). No evidence for underground tanks, such as fill pipes, was observed on the site or along the sidewalks of the site, except where noted below for Parcels 1 and 3.

What is interpreted to be a former transformer pad was located in the northern corner of Parcel 1 (Figures 2 and 4A). Several uncapped plastic pipes were present within the concrete pad. These are interpreted to be former electrical conduits. No staining was noted in the vicinity of the former transformer. Several sections of the asphalt in the eastern portion of Parcel 1 where the underground tank and clarifier are reported to have been removed were noted to be relatively recently repaved (Figures 2 and 4B).

Parcels 2 and 3 were noted to be contiguous with each other and separated from Parcel 1 by an approximately 4-foot high retaining wall. A long, narrow asphalt patch was observed on Parcel 2 (Figure 2). A rectangular asphalt patch approximately 10 feet by 6 feet in size was present on the back portion of Parcel 3, away from Webster (Figures 2 and 5). Approximately 15 to 20 feet west of this patch a circular patch with an approximate diameter of 1 foot was present (Figure 5).

#### 4.6 Site Vicinity Reconnaissance

A reconnaissance of properties in the immediate vicinity, and selected properties in the vicinity of the site, was performed on 15 December 1992 by personnel of Applied Geosciences Inc. to record readily observable visual evidence that would suggest the storage or use of potentially hazardous materials in the vicinity of the site. The immediate site vicinity and site vicinity were

observed to be either parking lots or office, restaurant, and retail buildings. No evidence for the use or storage of potentially hazardous materials was observed.

## **5.0 REGULATORY AGENCY REVIEW**

### **5.1 Regulatory Agency Lists**

Publications, records, and/or documents from selected regulatory agencies were reviewed during the performance of this environmental assessment. The following regulatory agency lists were reviewed:

- RWQCB list for unauthorized releases of fuel hydrocarbons (RWQCB, 1992b); 72 sites reported in site vicinity (Table 1)
- RWQCB North Bay Toxics list for unauthorized releases of nonfuel hazardous materials (RWQCB, 1992a); 5 sites reported in site vicinity (Table 1)
- Cal-EPA Cal-Sites Annual Work Plan for State Superfund sites (Cal-EPA, 1991); no sites reported in site vicinity
- U.S. EPA National Priorities List for Federal Superfund sites (U.S. EPA, 1992b); no sites reported in site vicinity
- CIWMB and SWIS lists for active, inactive, and abandoned landfills (CIWMB, 1992a; 1992b; SWIS, 1986); no landfills reported in site vicinity
- U.S. EPA CERCLIS list for facilities that have been reviewed by the U.S. EPA (U.S. EPA, 1992a); 3 sites reported in site vicinity (Table 1)
- OPR Cortese list for hazardous waste and substances sites (OPR, 1990); 51 sites reported in site vicinity (Table 1)
- Cal-EPA Cal-Sites lists for sites that have been reviewed by the Cal-EPA or former California Department of Health Services, Department of Toxic Substances Control (Cal-EPA, 1992); no sites reported adjacent to the site
- California Division of Oil and Gas records regarding present or past oil field activities (CADOG, 1982); no oil and gas exploration reported in site vicinity

A tabulation of the sites included on the lists reviewed is presented on Table 1; these facilities are shown in Figure 1.

## 5.2 Regulatory Agency Files

Files for the site and facilities located immediately adjacent to the site from the Fire Department and ACHCSA, and files maintained by the Building Department for the site, were reviewed where readily available. Files for selected facilities reported to have released hazardous materials in the vicinity of the site were reviewed at the RWQCB. Because of the large number of reported releases in the vicinity of the site, only files for facilities located near the site were reviewed. These facilities were selected based on the assumption that hazardous materials released to the subsurface generally do not migrate laterally substantial distances within the soil, but tend to migrate with groundwater in the general direction of the slope of the groundwater gradient and their location relative to the site. Hazardous materials reported released from other facilities in the vicinity of the site not reviewed are judged to have a low likelihood of having migrated to, and being present in, the subsurface of the site based on their reported location in relation to the site.

### 5.2.1 Oakland Fire Department

Permits for the installation, modification, removal, and abandonment of underground tanks were reviewed at the Fire Department. These permits generally dated from the 1970's to the present. Older permits were not available for review, since they had been destroyed. Other files regarding hazardous materials were available for review.

A permit dated 30 July 1991 was on file for the removal of a 500-gallon waste oil tank and 1,000-gallon gasoline tank from 1833 Harrison (Parcel 1). No permits for underground tanks were present for Parcels 2 and 3, or adjacent properties. This permit is interpreted to have been for the removal of the underground tank conducted by Montgomery since the permit had a Health and safety Plan prepared by Montgomery attached. The 500-gallon waste oil tank is reported by Montgomery to not have been located and was judged by Montgomery to not have been present at the site.

Two permits were on file for the removal of three tanks from 1721 Webster, located across Webster from Parcels 2 and 3 (Figure 1).

### 5.2.2 ACHCSA

Files for the site and properties immediately adjacent to the site were reviewed at the ACHCSA. The ACHCSA did not have any files for Parcels 2 and 3, or properties adjacent to the site. The only information available at the ACHCSA pertained to Parcel 1 and a nearby, off-site property. A summary of the information reviewed is presented below.

#### 1881 Harrison

- Noted to be also be 301 19<sup>th</sup> Street
- Letter from ACHCSA to Douglas Parking requesting closure plan or permit application regarding underground storage tanks at the site

### 1721 Webster

- Located approximately 100 to 200 feet west of site, across Webster
- Three underground storage tanks removed in August 1992
- Up to 1,500 milligrams per kilogram (mg/kg) gasoline reported in soil samples collected from beneath the tanks

### 5.2.3 Building Department

Limited information regarding Parcel 1 was found at the building department and none was located for Parcels 2 and 3. A summary of the information reviewed is presented below.

### 301 19<sup>th</sup> Street

- Parcel formerly used by Avis Rent A Car
- On-site activities included washing of cars in a wash rack and some minor servicing
- A catch basin was located on a concrete pad west of the on-site building, possibly related to the wash rack

### 1833 Harrison

- Plans present for a proposed restaurant and associated service building dated 26 December 1945
  - Building plan overlain on a base map that was not legible, but indicated two pump islands were present in the northeastern portion of Parcel 1
- 1958 alteration permit application indicated parcel used for drive-in-restaurant
- 1964 permit to demolish the on-site building
- 1968 permits for building construction to Avis Rent A Car
- Sign construction permits for Thrifty Rent A Car

### 5.2.4 RWQCB

A summary of the information obtained from RWQCB files reviewed is presented below.

### Lake Point Towers, No. 14 in Table 1 and Figure 1

- Located approximately 0.3 mile east-southeast of the site
- Two 500-gallon underground fuel oil tanks discovered during construction excavation
- Up to 2,400 mg/kg diesel reported in the soil
  - excavated soil to nondetectable levels
- No further action required by the ACHCSA

Kaiser regional Parking, No. 32 in Table 1 and Figure 1

- Located approximately 0.15 mile north of the site
- Two underground fuel tanks reported to have been removed
- Up to 8,600 mg/kg petroleum hydrocarbons reported in the soil

Harrison Street Garage, No. 38 in Table 1 and Figure 1

- Located approximately 0.2 mile south of the site
- Up to 9,300 mg/kg total petroleum hydrocarbons and 99 mg/kg benzene reported in soil from underground tank located in basement of parking structure
- Material reviewed indicated that groundwater was thought to be impacted, but no groundwater information in the file

Chevron, No. 39 in Table 1 and Figure 1

- Located approximately 0.1 mile south of the site
- Elevated concentrations of petroleum hydrocarbons reported in soil and groundwater
  - Up to 50,000 mg/kg gasoline in soil
- Groundwater reported to be present at approximately 22 to 24 feet below the ground surface
  - Dissolved plume of petroleum hydrocarbons (up to 600 milligrams per liter [mg/l] gasoline) and volatile organic compounds (VOCs; 540 micrograms per liter [ $\mu$ g/l] tetrachloroethene) reported to extend east from this facility
  - Groundwater samples collected from two wells located on north side of 17<sup>th</sup> Street reported to contain 7.4 and 73  $\mu$ g/l tetrachloroethene
- Chevron proposing to remediate soil and groundwater using vapor extraction and carbon adsorption, respectively

Regillius Condominiums, No. 48 in Table 1 and Figure 1

- Located approximately 0.15 mile east of the site
- Approximately 67 year old underground tank reported to have been removed in 1988
- Soil remediation reported to have included removal of 24 cubic yards of soil
  - Up to 110 mg/kg oil and grease and 34 mg/kg diesel remain in soil
- Groundwater reported to be nondetect for oil and grease, gasoline, diesel, and VOCs
  - Groundwater flow reported to be affected by a sump pump in condominium basement

PG&E, No. 55 in Table 1 and Figure 1

- Located approximately 0.1 mile north of the site
- Low concentrations of ethylbenzene, toluene, and xylene reported in the soil in the vicinity of an underground tank
  - No diesel or oil and grease reported in the soil samples



City of Oakland Galleria Project, No. 63 in Table 1 and Figure 1

- Located approximately 0.25 mile northwest of the site
- No file available for review

Chevron, No. 79 in Table 1 and Figure 1

- Located approximately 0.25 mile northwest of the site
- Up to 1,400 mg/kg petroleum hydrocarbons reported in soil in vicinity of underground tanks following removal
- Groundwater reported at 18 feet below the ground surface
  - Groundwater reported to be nondetect for petroleum hydrocarbons

## 6.0 DISCUSSION

### 6.1 Historical Site Usage

The site and site vicinity have generally developed since at least 1899. Parcels 2 and 3 are interpreted to have been used for residential purposes until at least 1936 based on the Reverse Business Directory. Since 1936, Parcels 2 and 3 have been used for parking lots. A rectangular patched area of asphalt was observed on Parcel 3 during the site reconnaissance. The rectangular patch may indicate that an underground tank was removed from the site. Further, the circular asphalt patch may have been a soil boring drilled near an underground tank to assess whether a release had occurred. No information was available at the RWQCB, Fire Department, or ACHCSA concerning the removal of an underground tank at Parcel 3. However, the past residence on the parcel may have had an underground heating oil storage tank. Home heating oil storage tanks are not required to be permitted for removal (Hugo, 1993). Based on the presence of the asphalt patches at Parcel 3 and current regulatory guidelines for home heating oil tanks, it is the judgment of Applied Geosciences Inc. that there is a moderate likelihood that an an underground tank was removed from Parcel 3. Since no information was available regarding soil conditions in the vicinity of the possible former underground tank, it is further the judgment of Applied Geosciences Inc. that there is a moderate likelihood that elevated concentrations of hazardous materials may be present in the subsurface of Parcel 3 from past use of the site.

Susan

Parcel 1 is interpreted to have been used for residential purposes, a restaurant, a parking lot, and a car rental facility. Information contained in the Building Department files indicated that pump islands may have been present on Parcel 1 prior to development as a restaurant. This is interpreted to indicate that the site may have been used as a gasoline station sometime between 1911, the last indication of residential use based on Sanborn maps, and 1947 when the site was observed to consist of the circular structure judged by Applied Geosciences Inc. to be the drive-in restaurant. The restaurant was demolished sometime between 1964 and 1969 and the parcel is interpreted to have been used as a parking lot until approximately 1969. From approximately 1969 until sometime between 1988 and 1990 the site was used as a car rental facility.

*This was  
not investigated*

No information was reviewed regarding the possible use of Parcel 1 as a gasoline station. Further, there were no data reviewed concerning the presence or removal of underground tanks and fuel dispensers utilized by the gasoline station interpreted to have been present on Parcel 1 during the period between 1911 and 1947. Based on this, it is the judgment of Applied Geosciences Inc. that there is currently a lack of information from which to make a conclusion on the likelihood that underground tanks from this potential gasoline station are present at the site. ~~The tank removal report prepared by Montgomery (Montgomery, 1991) reported that it was their judgment that the tanks and dispenser system was installed within the last 15 years. Based on this information, it is the judgment of Applied Geosciences Inc. that there is a high likelihood that the underground tanks removed by Montgomery were not used by the potential gasoline station interpreted to have been present sometime between 1911 and 1947 at the site.~~

Based on information presented in Montgomery (1991), the car rental agencies are interpreted to have installed an underground tank and clarifier at Parcel 1 in the approximate locations shown on the figures included in Appendix A. Upon removal of these features, no evidence for releases was reported to have been observed and soil analytical data collected during removal activities were not reported to contain detectable concentrations of potentially hazardous materials, except lead which is interpreted to have been present in background concentrations.

The area where the underground tank and clarifier were removed is the general area indicated to have possibly had pump islands prior to development of the site as a restaurant. The investigation conducted by Montgomery did not encounter indications of the presence of elevated concentrations of hazardous materials within the subsurface. Based on this and the interpreted historical use of Parcel 1, it is the judgment of Applied Geosciences Inc. that there is a low likelihood that hazardous materials are present in the subsurface of Parcel 1 from past use of the site.

## 6.2 Present Site Usage

The site is currently utilized for parking lots. No evidence for the presence of hazardous materials was observed during the site visit. Based on this, it is the judgment of Applied Geosciences Inc. that there is a low likelihood that hazardous materials are present in the subsurface of the site based on current use of the site.

## 6.3 Present Site Vicinity Usage

There are no reported State or Federal Superfund sites, landfills, or oil and gas exploration in the site vicinity. Therefore, it is the judgment of Applied Geosciences Inc. that there is a very low likelihood that potentially hazardous materials from State or Federal Superfund sites, landfills, or oil and gas exploration are present in the subsurface of the site. Although there are no reported State or Federal Superfund sites in the vicinity of the site, there are numerous locations where potentially hazardous materials have been released to the subsurface in the vicinity of the site.

Materials released in the vicinity of the site include predominantly petroleum hydrocarbons, with some VOCs reported. Potentially hazardous materials released to the subsurface generally do not migrate laterally substantial distances within the soil, but tend to migrate with groundwater in the general direction of the slope of the groundwater gradient. The groundwater gradient in the vicinity of the site is reported to slope to the east. It is judged likely that the gradient in the area of the site also slopes to the east.

Based on the material reviewed, the releases of hazardous materials reported in the vicinity of the site are generally restricted to the soil, limited to the groundwater at the reported facility, or are reported to be migrating away from the site. In general, materials reported to have been released in the vicinity of the site are judged by Applied Geosciences Inc. to have a low likelihood of being present at the site, except for material released at 1721 Webster. This facility is located in the interpreted general upgradient direction from the site. The release of hazardous materials at 1721 Webster may impact groundwater, in our judgment. Based on the information concerning the release at this facility, the lack of groundwater data for the release, and the location of the release relative to the site, it is the judgment of Applied Geosciences Inc. that there is a moderate likelihood that materials released at 1721 Webster may be present in the subsurface of the site.

The judgments, conclusions, and recommendations described in this report pertain to the conditions judged to be present or applicable at the time the work was performed. Future conditions may differ from those described herein, and this report is not intended for use in future evaluations of the site unless an update is conducted by a consultant familiar with environmental assessments and/or subsurface investigations. Use of this report is provided to Terracorp, solely for their exclusive use and shall be subject to the terms and conditions in the applicable contract between Terracorp, and Applied Geosciences Inc. Any third party use, including use by Client's lender, of this report shall also be subject to the terms and conditions governing the work in the contract between Terracorp and Applied Geosciences Inc. Any unauthorized release or misuse of this report shall be without risk or liability to Applied Geosciences Inc.

Certain information contained in this report may have been rightfully provided to Applied Geosciences Inc. by third parties or other outside sources. Applied Geosciences Inc. does not make any warranties or representations, whether expressed or implied, regarding the accuracy of such information, and shall not be held accountable or responsible in the event that any such inaccuracies are present.

## 7.0 CONCLUSIONS

Based on the material presented in this report, current regulatory guidelines, and the professional judgment of Applied Geosciences Inc., the following conclusions have been made:

- There is a moderate likelihood that elevated concentrations of hazardous materials may be present in the subsurface of Parcel 3 from past use of the site;

- There is currently a lack of information from which to make a conclusion on the likelihood that underground tanks from this potential gasoline station are present at the site;
- There is a low likelihood that hazardous materials are present in the subsurface of Parcel 1 from past use of the site;
- There is a low likelihood that hazardous materials are present in the subsurface of the site based on current use of the site;
- There is a very low likelihood that potentially hazardous materials from State or Federal Superfund sites, landfills, or oil and gas exploration are present in the subsurface of the site; and
- There is a moderate likelihood that materials released at 1721 Webster, across the street from the site may be present in the subsurface of the site.

## **8.0 RECOMMENDATIONS**

Based on the material presented in this report, current regulatory guidelines, and the professional judgment of Applied Geosciences Inc., the following recommendations are presented:

- Conduct a geophysical survey at the site to evaluate the presence of underground tanks at Parcels 1 and 3;
- Collect soil samples from Parcel 3 in the vicinity of the patched asphalt to further assess the likelihood that hazardous materials are present in the subsurface near the possible former underground tank; and
- If a greater confidence is desired regarding the likelihood that materials released at 1721 Webster may be present in the subsurface of the site, (1) further attempt to contact local regulatory agencies regarding the potential impacts to groundwater from releases at that facility, or (2) install one to two shallow groundwater monitoring wells to collect groundwater samples for laboratory analyses.

## 9.0 REFERENCES

- CADOG (California Division of Oil and Gas), 1982, California oil and gas field, northern California: dated 1982.
- Cal-EPA (California Environmental Protection Agency, Department of Toxic Substances Control), 1991, Cal-sites list of active annual workplan sites, FY 1991-92: dated 16 September 1991.
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County, 7.5-minute series (topographic), photorevised 1980, scale 1:24,000.

\_\_\_\_\_, 1959, Oakland west quadrangle, California - Alameda County, 7.5-minute series  
(topographic), photorevised 1980, scale 1:24,000.

**TABLE 1  
REGULATORY AGENCY LIST SITES**

Site No.	Site Name	Address	CERCLIS	CALSITES	NBT	RWQCB	CORTESE	STATUS
1	Francis Plating of Oakland	785 7th Street	X					Deferred
2	PG&E Gas Plant Oakland 601 2A	First & Washington	X					NFA
3	Bedford Property	54 Embarcadero Street	X	X	X	X	X	NFA
4	City of Oakland Redevelopment Agency	11th & Webster			X	X	X	
5	Frank G. Mar Community Housing Project	Harrison and 13th Streets			X			
6	Oakland Redevelopment Agency/Five City Center	13th/14th/Jefferson/ML King			X	X	X	
7	Bramalea Pacific	12th & Clay				X	X	
8	Western Union	125 12th Street				X		
9	Bramalea Pacific	13th & Jefferson				X	X	
10	Alcopark Garage	165 13th Street				X	X	
11	Mobil	160 14th Street				X	X	
12	Chevron	301 14th Street				X		
13	Oakland Community Development	690 15th Street				X	X	
14	Lake Point Towers	17th & Lakeside Drive				X		
15	United Glass	477 25th Street				X		
16	Performance Associates/Oakland Acura	255 27th Street				X	X	
17	Masri Property	290 27th Street				X		
18	Miller Parking	206 2nd Street				X		
19	Union Machine Works	534 2nd Street				X		
20	PE O'Hair & Co.	309 4th Street				X		
21	Balco Properties	55 4th Street				X		
22	Guarantee Forklift	699 4th Street				X		
23	Parking Structure	7th & Jefferson Street				X	X	
24	Exxon	250 8th Street				X		
25	Shell	461 8th Street				X	X	
26	Pacific Renaissance Plaza	9th & Webster				X	X	
27	Fire Station #2	822 Alice Street				X	X	
28	Oakland Federal Building	1305 Clay Street				X		
29	City of Oakland	1417 Clay Street				X	X	
30	Peerless Coffee	255 Fallon Street				X		
31	Laney College	600 Fallon Street				X	X	
32	Kaiser Regional Parking	1901 Franklin Street				X	X	
33	Alex Shaw & Associates	800 Franklin Street				X		
34	Lakeside Park	468 Bellvue Avenue				X	X	
35	Bill Cox Cadillac	30 Bay Place				X	X	
36	Chevron	210 Grand Avenue				X	X	
37	Shell	350 Grand Avenue				X		
38	Harrison Street Garage	1432 Harrison Street				X		
39	Chevron	1633 Harrison Street				X	X	
40	Lake Merritt Towers II	2100 Harrison Street				X		
41	Unocal	800 Harrison Street				X		
42	Oakland Auto Parts & Tires	706 Harrison Street				X		
43	Port of Oakland	Jack London Square				X	X	
44	East Bay Packaging Co.	208 Jackson Street				X	X	
45	Blue Print Service Company	1700 Jefferson Street				X	X	

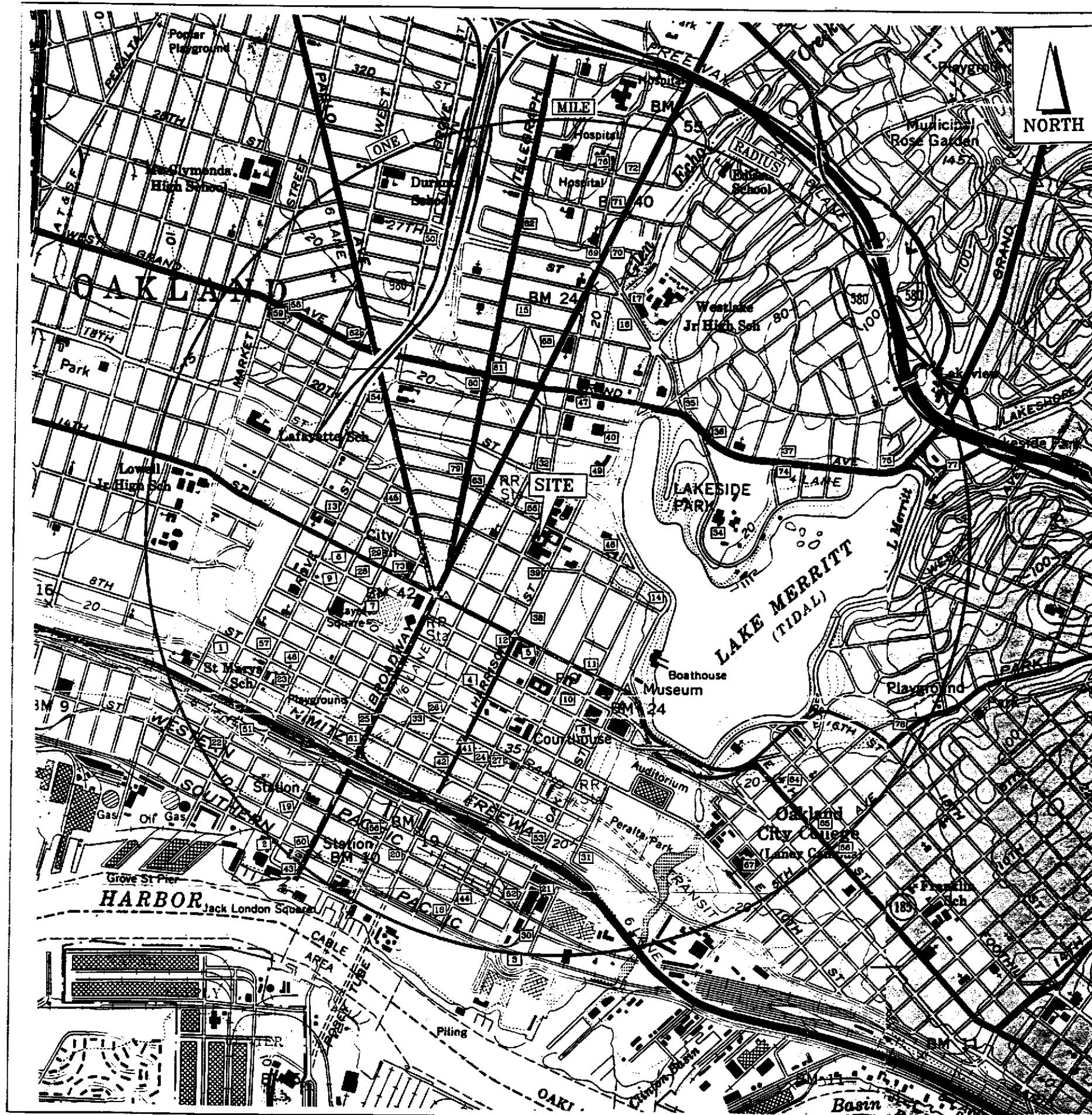
TABLE 1 CONTINUED  
REGULATORY AGENCY LIST SITES

Site No.	Site Name	Address	CERCLIS	CALSITES	NBT	RWQCB	CORTESE	STATUS
46	Bramalea USA Inc.	901-999 Jefferson Street				X		
47	Ordway/Broadway Building	1 Kaiser Plaza				X		
48	Regillus Condominiums	200 Lakeside Drive				X	X	
49	Kaiser Center, Inc.	300 Lakeside Drive				X		
50	Mostly Mustangs	2576 Martin Luther King				X	X	
51	Texaco	424 Martin Luther King				X	X	
52	Penn Partners	333 Oak Street				X		
53	Chevron	609 Oak Street				X	X	
54	Greyhound Bus Lines Terminal	2103 San Pablo Avenue				X	X	
55	PG&E	1919 Webster Street				X	X	
56	City's Auto Repair	330 Webster Street				X	X	
57	GTE Telephone Company	670 9th Street					X	
58	Chevron	850 W. Grand					X	
59	Arco	889 W. Grand					X	
60	Unknown	111 Broadway					X	
61	Shell	7th & Broadway					X	
62	Fyne Property	774 W. Grand Avenue					X	
63	City of Oakland Galleria Project	17th & 20th Street			X			
64	Time Oil Co.	255 E. 14th Street				X	X	
65	Tune-up Masters	450 E. 14th Street				X		
66	Shell	510 E. 14th Street				X	X	
67	Unknown	1033 4th Avenue				X	X	
68	Negherbon Lincoln Mercury	2345 Broadway				X		
69	Tracy Buick	2735 Broadway				X	X	
70	Broadway Volkswagen	2740 Broadway				X	X	
71	European Motors	2915 Broadway				X	X	
72	Connel Olsmobile	3093 Broadway				X	X	
73	Oakland City Hall	1 City Hall Plaza				X	X	
74	Quick Stop Market	363 Grand Avenue				X	X	
75	Texaco/Exxon	500 Grand Avenue				X	X	
76	Merritt Hospital Card Pulm Bdg	365 Hawthorne Street				X	X	
77	Chevron	3026 Lakeshore Avenue				X	X	
78	Yuen's Automotive	1901 Park Boulevard				X	X	
79	Chevron	1911 Telegraph Avenue				X	X	
80	Texaco/Exxon	2225 Telegraph Avenue				X	X	
81	Dave's Complete Auto Service	2250 Telegraph Avenue				X		
82	Shell	2800 Telegraph Avenue				X		

Notes:

1. Site No. refers to the number presented in Figure 1.
2. All addresses in Oakland, California
3. CERCLIS = U.S. Environmental Protection Agency Comprehensive Environmental Response, Compensation, and Liability Act list.
4. CALSITES = California Environmental Protection Agency, Department of Toxic Substances Control Cal-sites list.
5. NBT = San Francisco Regional Water Quality Control Board North Bay Toxics List
6. RWQCB = San Francisco Regional Water Quality Control Board Fuel Leak list.
7. CORTESE = California Office of Planning and Research Hazardous Waste and Substance Sites list.
8. STATUS as indicated on either CERCLIS or CALSITES. NFA = No further remedial action planned (CERCLIS) or no further action (Cal-sites). PEARM = Preliminary endangerment assessment required, medium priority (Cal-sites).





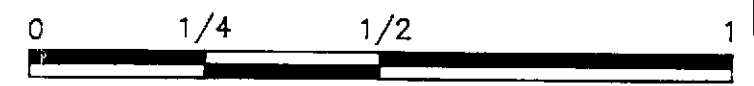
EXPLANATION

NUMBERED SITES REFERED TO IN THE TEXT AND IN TABLE 1.

- NOTES:
1. BASE MAP FROM USGS OAKLAND EAST AND OAKLAND WEST, CALIFORNIA QUADRANGLES, 7.5-MINUTE SERIES (TOPOGRAPHIC), 1959, PHOTOREVISED 1980.
  2. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

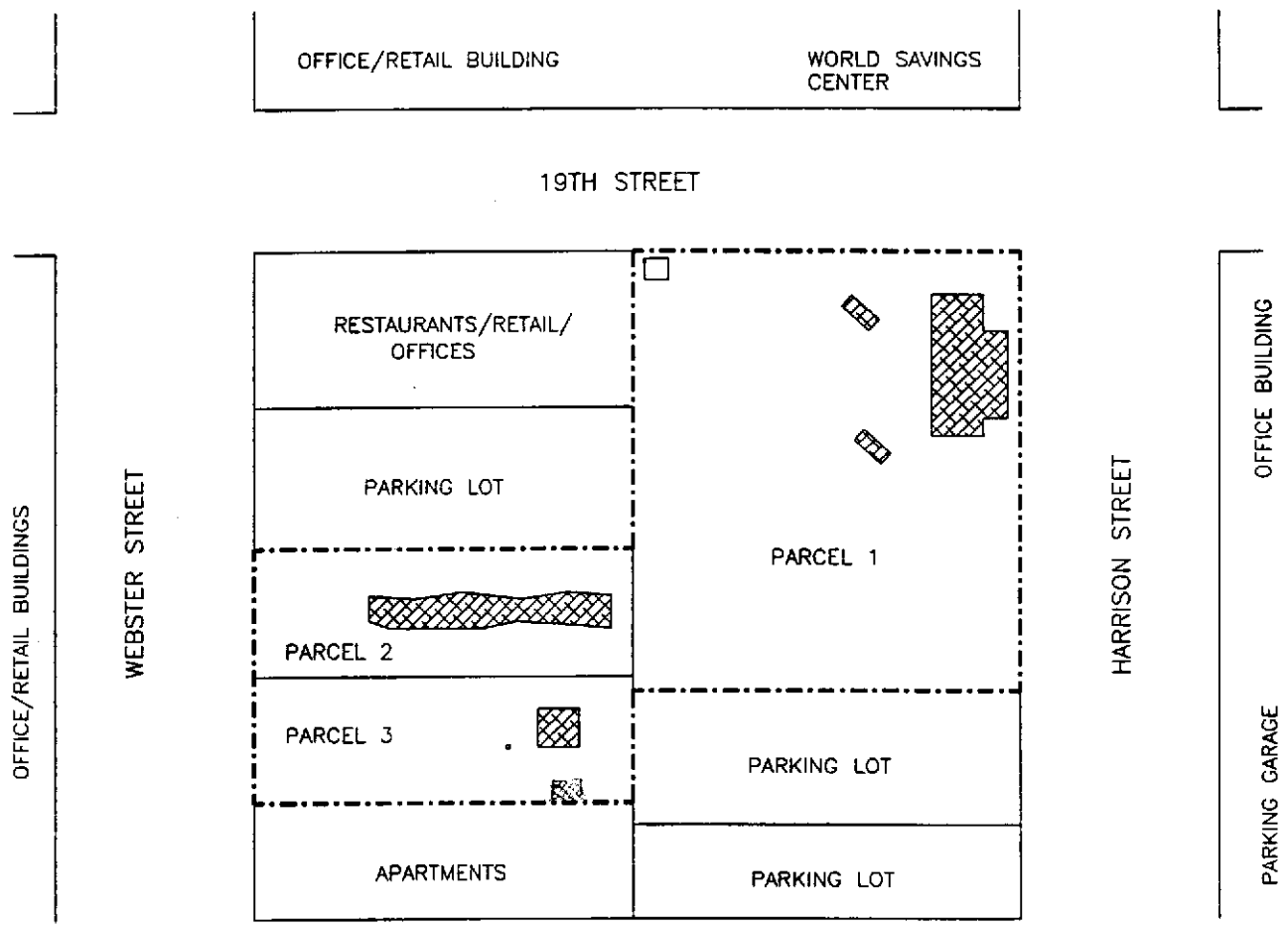


Quadrangle Location








SCALE, MILES

APPLIED GEOSCIENCES INC. Environmental Consultants	
SITE VICINITY MAP	
PROJECT NO. A922503	FIGURE 1




EXPLANATION

-  AREA OF PATCHED ASPHALT
-  CIRCULAR ASPHALT PATCH
-  FORMER TRANSFORMER LOCATION
-  SITE BOUNDARY
-  PARCEL BOUNDARY

NOTES:

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. BASE MAP MODIFIED FROM MAP PROVIDED BY TERRACORP PROPERTIES, INC.
3. NO SCALE

<b>APPLIED GEOSCIENCES INC.</b>	
Environmental Consultants	
	
<b>SITE PLOT PLAN</b>	
<b>PROJECT NO. A922503</b>	<b>FIGURE 2</b>

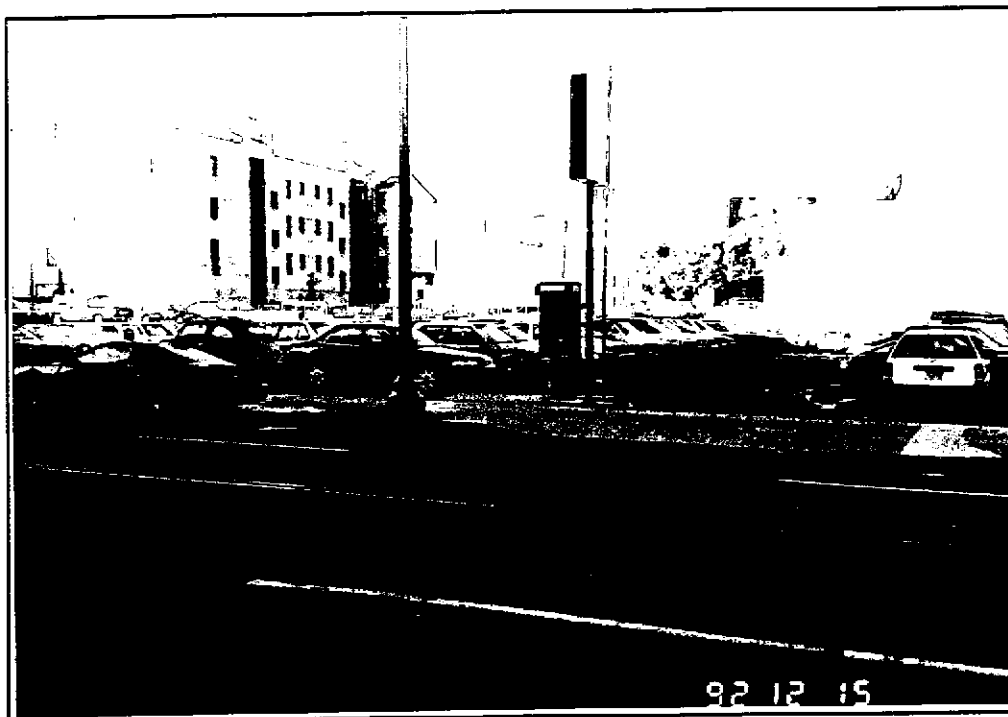


FIGURE 3A. PHOTOPRINT OF PARCEL 1. THIS PARCEL IS UTILIZED FOR AUTOMOBILE PARKING. NOTE THAT THE OFF-SITE PARCEL ADJACENT TO THE SITE IS ELEVATED ABOVE THE SITE. THIS IS DEMONSTRATED BY THE CARS AT THE LEFT OF THE PHOTOPRINT AT A HIGHER ELEVATION THAN THOSE ON-SITE. THE BUILDING IN THE BACKGROUND AT LEFT-CENTER IS THE APARTMENT BUILDING SOUTH OF PARCELS 2 AND 3.

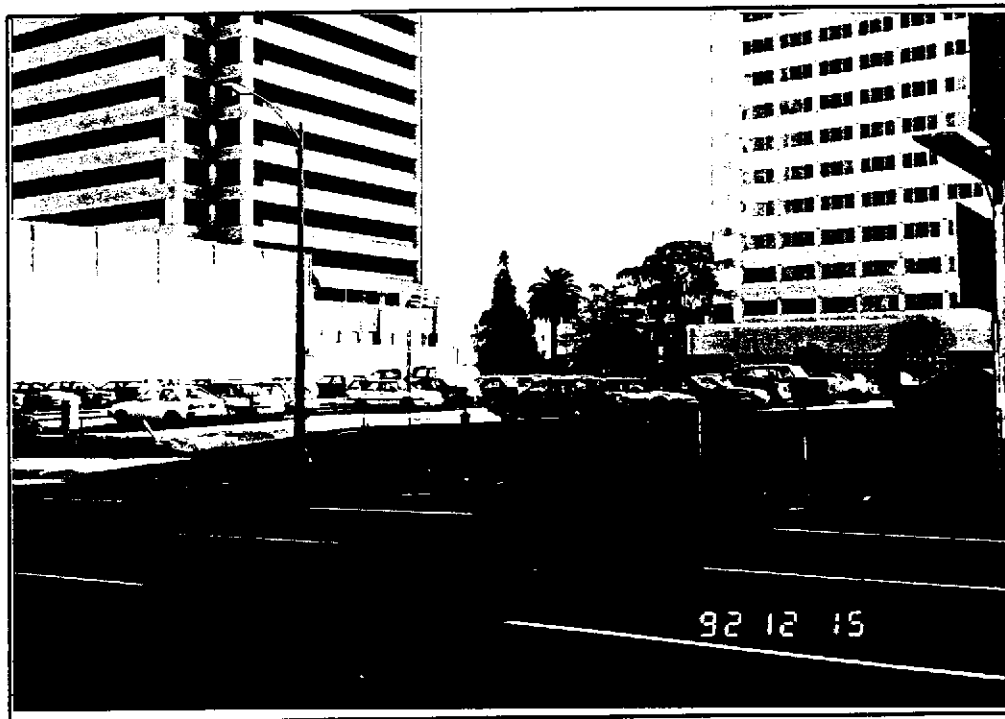


FIGURE 3B. PHOTOPRINT OF PARCELS 2 AND 3. THESE PARCELS ARE UTILIZED FOR AUTOMOBILE PARKING.



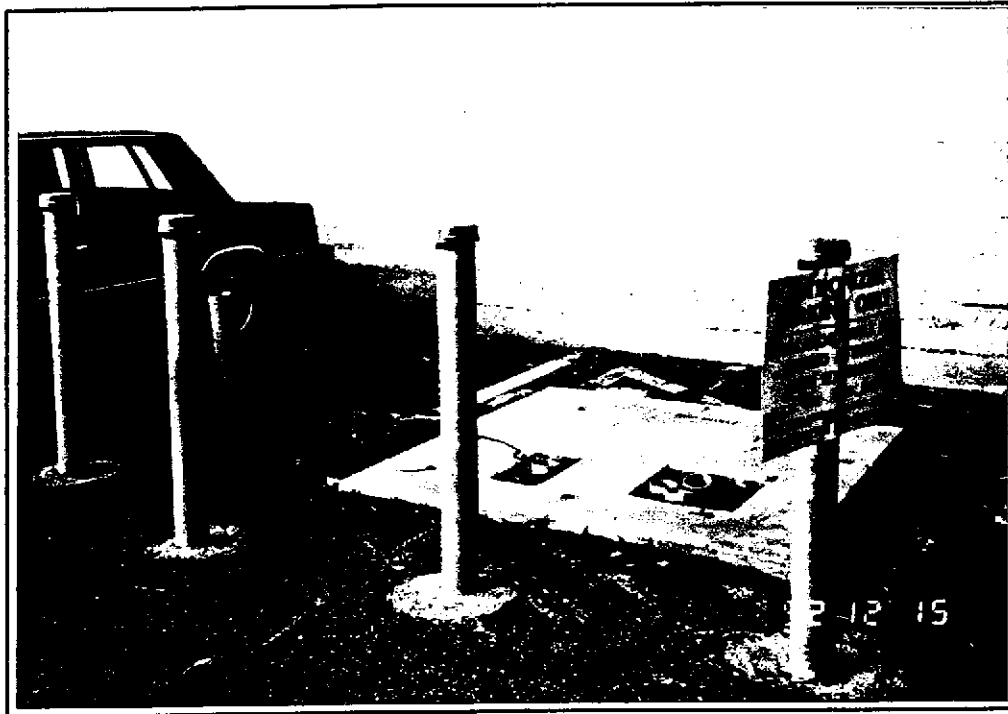


FIGURE 4A. PHOTOPRINT OF INTERPRETED FORMER TRANSFORMER PAD LOCATED IN THE NORTHERN CORNER OF PARCEL 1. OPEN PIPING WITHIN THE CONCRETE PAD IS INTERPRETED TO BE ELECTRICAL CONDUIT.

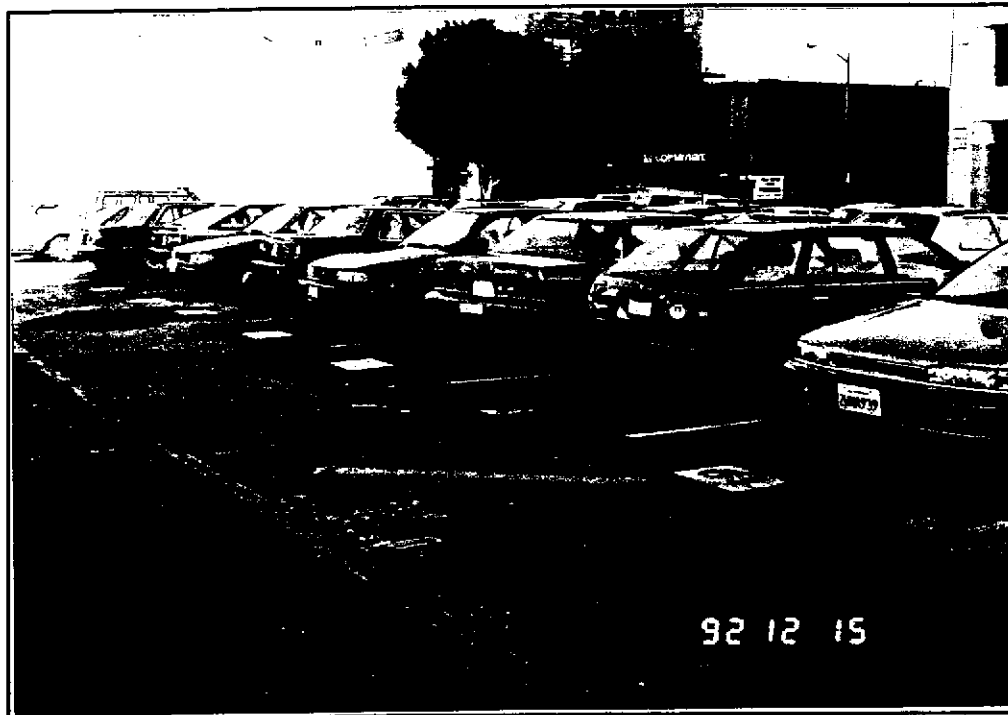


FIGURE 4B. PHOTOPRINT OF PATCHED ASPHALT WITHIN PARCEL 1. VIEW IS OF THE SOUTHERN END OF THE PATCH LOOKING NORTH.



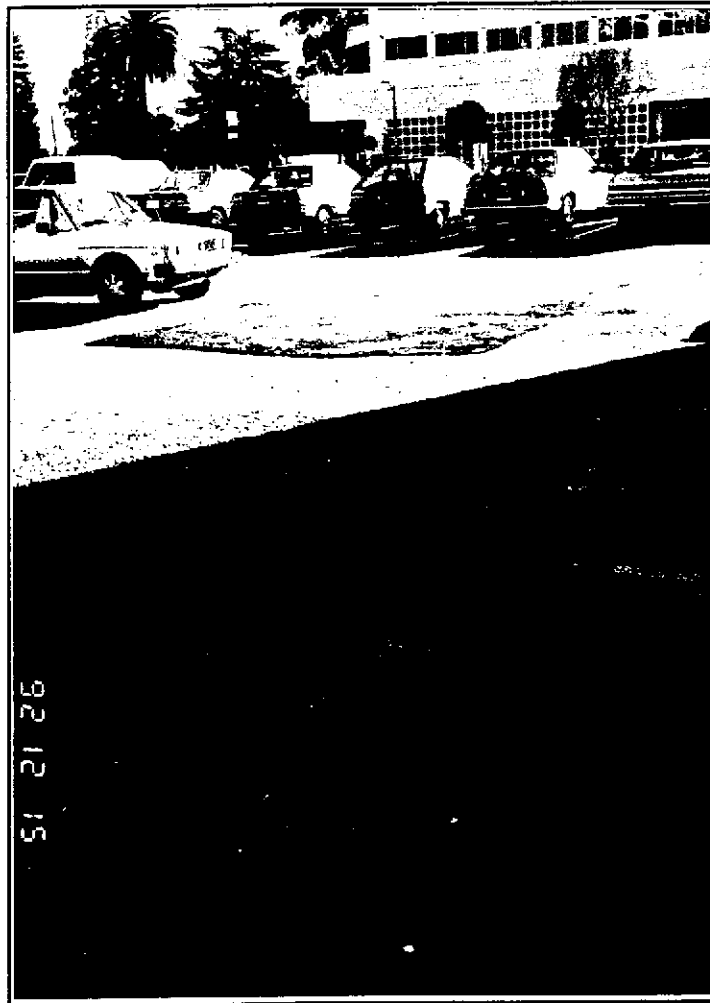


FIGURE 5. PHOTOPRINT OF ASPHALT PATCH IN PARCEL 3. CIRCULA PATCH IS LOCATED TO LEFT OF NUMBER "31" IN PHOTOPRINT. VIEW LOOKS TO THE EAST.



**APPENDIX A**

**JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.  
TANK REMOVAL REPORT INFORMATION**

1991

**TABLE 1**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**1833 HARRISON STREET**

Soil Sample	Location	TPH as Gasoline (mg/kg)	TPH as Diesel (mg/kg)	Total Lead (mg/kg)	Benzene (mg/kg)	Ethyl-benzene (mg/kg)	Toluene (mg/kg)	Xylene (mg/kg)	total Hydrocarbon (mg/kg)	total Oil and Grease (mg/kg)
JM-01	One ft. below SE corner of the wash-rack clarifier	<1.0	<1.0	NA	<0.3	<0.2	<0.2	<0.2	<50	<50
JM-02	Composite sample, clarifier contents	12	35	NA	<0.3	<0.2	<0.2	<0.2	<50	120
JM-03	Composite sample, soil stockpile	NA	<1.0	NA	<0.005 (a)	<0.005 (a)	<0.005 (a)	<0.005 (a)	NA	NA
JM-04	One ft. below W corner of the 5000-gallon UST	<1.0	NA	4.4	<0.3	<0.2	<0.2	<0.2	NA	NA
JM-05	One ft. below E corner of the 5000-gallon UST	<1.0	NA	10.6	<0.3	<0.2	<0.2	<0.2	NA	NA
JM-06	One ft. below the dispenser piping	<1.0	NA	8.8	<0.3	<0.2	<0.2	<0.2	NA	NA
	<b>Detection Limits:</b>	<b>1.0</b>	<b>1.0</b>	<b>6.25</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>50</b>	<b>50</b>
	<b>Method of Analysis:</b>	<b>5030 8015</b>	<b>5030 8015</b>	<b>3050 7420</b>	<b>8240</b>	<b>8240</b>	<b>8240</b>	<b>8240</b>	<b>5520-F</b>	<b>5520-D</b>

(a) Analyzed using EPA Method 8020

NA - Not Analyzed

TPH - Total petroleum hydrocarbons

UST - Underground Storage Tank

19th STREET

Sidewalk

Diversified  
Parking Systems

Site Building

Concrete  
Pad

2-Stage Wash Rack  
Water Clarifier

Vent  
Vent

5,000 Gallon  
UST

Gasoline  
Dispenser

Asphalt

HARRISON STREET

Sidewalk

Asphalt

James M. Montgomery  
Consulting Engineers, Inc.



*Parcel 1*

PRETISS PROPERTIES  
1833 HARRISON STREET, OAKLAND, CA

SITE MAP

FIGURE 2



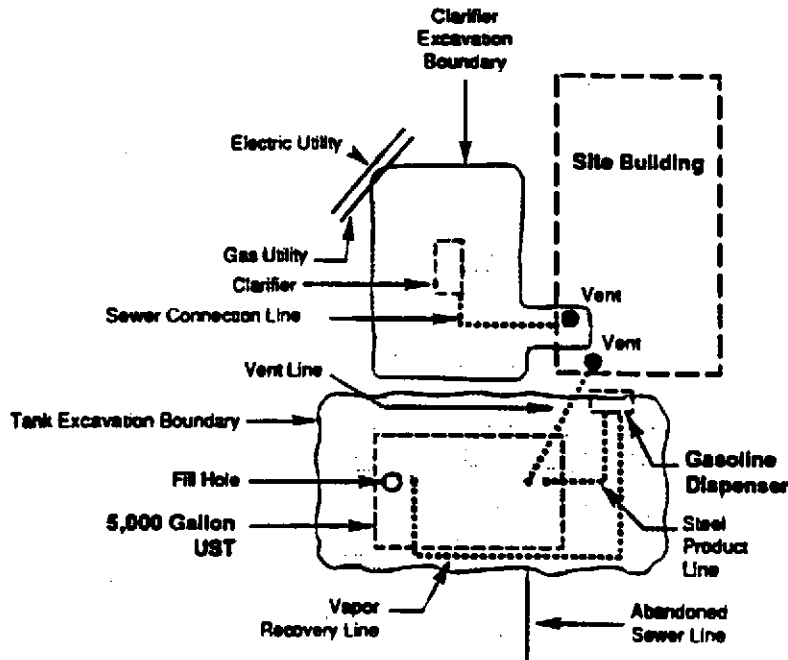


19th STREET

Sidewalk

HARRISON STREET

Sidewalk



Asphalt

*same site - closer*



0 10 20  
SCALE IN FEET

James M. Montgomery  
Consulting Engineers, Inc.



PRETISS PROPERTIES  
1833 HARRISON STREET, OAKLAND, CA  
TANK PIPING AND UNDERGROUND  
UTILITY LINES

FIGURE 3

19th STREET

Sidewalk

HARRISON STREET

Sidewalk

Clarifier  
Excavation  
Boundary

Site Building

Clarifier

JM-01

Tank Excavation Boundary

Gasoline  
Dispenser

JM-06

JM-04

JM-05

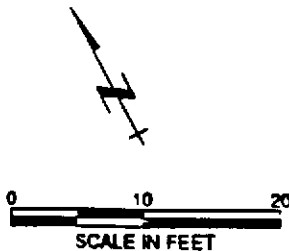
5,000 Gallon  
UST

Asphalt

*SOIL SAMPLE*

LEGEND:

● Soil Sample Location



James M. Montgomery  
Consulting Engineers, Inc.



PRENTISS PROPERTIES  
1833 HARRISON STREET, OAKLAND, CA  
SOIL SAMPLE LOCATIONS

FIGURE 4