

# BASELINE

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## ENVIRONMENTAL CONSULTING

### TRANSMITTAL

**TO:** Mr. Barney Chan  
Hazardous Materials Specialist  
Alameda County Health Care Services,  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Date:** January 10, 2005

**Project No:** Y0323-01

**SUBJECT:** 785 7th Street, Oakland, CA 94607

**ENCLOSED:**

No. of copies	Description:
1	Site History and Data Summary Report - Francis Plating Site

**COMMENTS:**

**Disposition:**


- As requested
- For signature
- For review and comment
- Returned after loan to us

cc: Tom McCoy  
Andrea Cohen

**Via:**

- Mail
- Overnight
- UPS ground
- Courier

**TRANSMITTED BY:**

  
Peter Weiler  
Senior Hydrogeophysicist

5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686 • FAX: (510) 420-1707

Emeryville Petaluma San Francisco

# **BASELINE**

## **ENVIRONMENTAL CONSULTING**

10 January, 2005  
Y0323-01

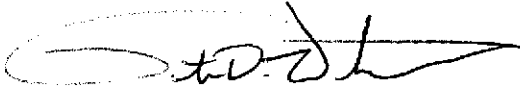
Mr. Barney Chan,  
Hazardous Materials Specialist  
Alameda County Health Care Services,  
Environmental Health Services - Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Subject: Site History and Data Summary Report, 785 - 7<sup>th</sup> Street, Oakland, California**

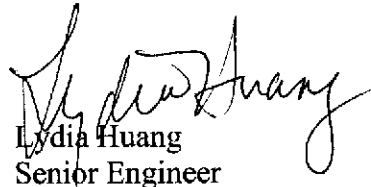
Dear Mr. Chan:

Please find enclosed our Site History and Data Summary Report for the former Francis Plating Site, 785 - 7<sup>th</sup> Street in Oakland, California, prepared on behalf of Brush Street Group. Should you have any questions or need any additional information, please don't hesitate to contact us at your convenience.

Sincerely,



Peter Weiler  
Senior Hydrogeophysicist



Lydia Huang  
Senior Engineer

cc: Mr. Tom McCoy, BBI

Y0323-01CompHistRpt.wpd-1/10/05

# SITE HISTORY AND DATA SUMMARY REPORT

785 - 7<sup>TH</sup> STREET  
Oakland, California

JANUARY 2005

For:  
BRUSH STREET GROUP  
Oakland, California

Y0323-01

BASELINE Environmental Consulting  
5900 Hollis Street, Suite D • Emeryville, California 94608  
(510) 420-8686

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## 1. INTRODUCTION

This report was prepared on behalf of Brush Street Group by BASELINE Environmental Consultants (BASELINE) to provide a summary of past land uses, subsurface sampling activities, and results for the former Francis Plating facility, located at 785 Seventh Street in Oakland, California (site) (Figure 1). Brush Street Group currently owns the property and is planning on selling the property to a developer. Brush Street Group has requested regulatory oversight from Alameda County Health Care Services Agency, Environmental Health Services (ACEH).

It is our understanding that the current development plan for the site involves construction of multi-story housing, designed to ensure isolation of site soil from future users (all site soils are to be covered by either pavement or several feet of imported soil).

BASELINE completed a subsurface investigation at the site in 2003, and the report of that investigation was submitted to ACEH for review (BASELINE, 2003). Mr. Barney Chan of ACEH provided comments on the 2003 BASELINE report and requested additional information in a letter dated 1 October 2004. In his letter, Mr. Chan requested copies of available previous reports and regulatory agency documents which would provide detailed descriptions of plating processes and activities, chemicals used and stored on the site, locations of various operations, waste disposal documentation and permits, and the rationale for previous subsurface investigation activities.

BASELINE prepared a response letter, dated 22 October 2004, which also transmitted several reports related to the site, prepared by other consultants and obtained by Brush Street Group. In several telephone conversations, Mr. Chan indicated that he did not have sufficient information to assess the adequacy of the 2003 BASELINE investigation. Mr. Chan verbally requested a comprehensive summary of the site history, operational details, and subsurface data to be submitted to ACEH to facilitate his review.

## 2. HISTORICAL SITE ACTIVITIES

The following sources of information were used to identify the historical site activities, including land uses, site ownership, regulatory agency involvement, site operations, and waste disposal practices:

- Sanborn fire insurance maps from the years 1889, 1902, 1912, 1951, 1952, 1957, 1958, 1961, 1967, and 1970 (Appendix A)
- Aerial photographs from 1939, 1946, 1958, 1965, 1982, and 1993 (Appendix B)
- Agency records and other documents obtained from a file review at the City of Oakland Fire Services Agency, Hazardous Materials Division (Oakland HMD), which is the Certified Unified Program Agency (CUPA) and repository for files pertaining to the site
- City Directories at approximately 3-year intervals from 1925 through 2002
- Phase I report prepared by Hillman Environmental (1997)
- Preliminary investigation results prepared by Versar Engineering (1993a,b)
- Assessment and Removal Report documenting a U.S. EPA emergency response and removal action conducted at the site in 1999 (E&E, 2000)

- A Hazardous Materials Management Plan (HMMP) prepared in 1993 and a Hazardous Materials Business Plan (HMBP) prepared in 1987 by Francis Plating (1987, 1993)
- Hazardous waste generator manifest records listing hazardous wastes disposed by the facility between 1993, when data tracking began, and 1999, when all operations at the facility ceased (Appendix C)

## 2.1 Land Use

Based on review of the resources listed above, the following is the chronology of land uses at the site.

- 1889 - 1912** The site was occupied by a number of structures identified on Sanborn Fire Insurance maps as: dwellings, Santa Fe Express Co., lodgings, Chinese laundry, Japanese laundry, marble works, stable, and other unlabeled structures (Figures A1 to A3 in Appendix A).
- 1951 - 1952** A building in the western portion of the site was occupied by an auto truck sales and service facility. According to the Phase I report prepared by Hillmann Environmental, a building permit was issued for this building in 1945, and a second, smaller office building was permitted in 1950 (Hillman, 1997). The northeastern corner of the site was occupied by two small buildings (a residence and store). A gasoline station was opened prior to 1951 on an adjacent parcel to the west (Figures A4 and A5 in Appendix A).
- 1957- 1961** The building on the western portion of the site was changed from auto and truck sales to a plating works (Spar-Tan Engineering; Hillman, 1997). A small building identified as "heater room" had been added along the southern perimeter of the site. Two gasoline service stations were added to the southwest and southeast of the site prior to 1957, and an auto cylinder facility had been added adjacent to the site on the south (Figures A6 to A8 in Appendix A).
- 1965 -1967** The gasoline stations to the southwest of the site and the two small buildings in the northeastern corner of the site appear to have been removed. The auto cylinder shop and other buildings to the south of the site had been replaced by an armature factory and warehouse. (Figure A9 in Appendix A).
- 1970** A new gasoline service station had been opened west of the site, and the western boundary of the block had been reconfigured and extended slightly further west (Figure A10 in Appendix A). A building permit was issued to Francis Plating in 1970 to construct a building on the eastern portion of the site, which subsequently housed the plating operations (Hillman, 1997).
- 1992** A fire on 18 November 1992 significantly damaged the plating facility. The then existing building on the west side of the site was razed and some electroplating operations moved to the present-day plating building in the northeastern quarter of

the site (Figure 2). Agencies including the Oakland Fire and Police Departments, U.S. EPA, U.S. Coast Guard, East Bay Municipal Utility District (EBMUD), San Francisco Regional Water Quality Control Board (RWQCB), Alameda County Hazmat, Berkeley Hazmat, and California Department of Fish and Game responded to the emergency. Approximately one million gallons of water was used to fight the fire, and an unknown quantity of high pH water containing chromium was released to the Oakland Estuary through storm drains. Erthco Environmental, Inc. and OHM Remediation Services Corporation were contracted to carry out emergency stabilization, sampling, and clean-up. Air monitoring and water and sediment sampling in storm drains and in the Oakland estuary were performed, and liquids in containment pits were vacuumed out over several days. Erthco prepared an emergency remedial response action plan for approval by the U.S. EPA.

**1998 - 1999** An inspection by the EBMUD on 26 August 1998 indicated that the site had been abandoned by the most recent owner and that large quantities of improperly stored hazardous materials remained onsite. Oakland Fire Department requested assistance from the U.S. EPA Office of Emergency Response to remove and stabilize hazardous materials at the site. The removal action was completed in 1999 and was documented in a report prepared by Ecology and Environment (E&E, 2000). The site has remained abandoned to the present day.

## 2.2 Site Ownership

The historical chain of title is as shown below (Hillman, 1997):

<u>Record Date</u>	<u>Owner</u>
Prior to 1940	H.D. Clark
August 23, 1945	Autocar Sales and Service
April 28, 1955	John R. Lambrecht and Hazel A. Lambrecht
April 28, 1955	Spar-Tan Engineering Co.
October 13, 1959	Gordon F. Cronkhite and Elizabeth I. Cronkhite
February 23, 1967	Wallace M. Francis and Kathryn C. Francis
February 6, 1987	Wallace M. Francis and Kathryn C. Francis, Trustees of the 1986 Francis Family Trust
July 13, 1994	Erthco Environmental Services, Inc.

After the 1992 fire, Mr. Francis experienced financial difficulties and offered Erthco Environmental, Inc. ownership of Francis Plating in lieu of payment for the cleanup. Erthco Environmental continued to operate Francis Plating, but also experienced financial difficulties. In May 1997, Erthco Environmental placed the property under the receivership of Wells Fargo Bank. Wells Fargo relinquished receivership on 23 January 1998, and Erthco resumed management of the Francis Plating facility. In June 1998, Erthco Environmental filed a voluntary Chapter 11 bankruptcy which

was converted to a Chapter 7 bankruptcy in July 1998. The property went under trusteeship to Tevis T. Thompson, a bankruptcy trustee, and in September 1998 Mr. Thompson filed a notice of intent to abandon the property. An objection was filed by the State of California, and the trustee withdrew the notice to abandon on 3 December 1998 to allow the State to proceed with cleanup efforts (Thompson, 2000).

Removal of hazardous materials was completed by Ecology and Environment in 1999 under an emergency response action by the U.S. EPA, and the Trustee offered the property for sale free and clear of all liens. Several liens are recorded against the property, including judgement liens recorded by Wells Fargo Bank, Aram Kinosian, and OHM Remediation Services Corporation, and tax liens recorded by the U.S. Internal Revenue Service, the County of Alameda, and the City of Oakland.

### 2.3 Regulatory History

BASELINE contacted the Cal EPA Department of Toxic Substances Control (DTSC), the Bay Area Air Quality Management District (BAAQMD), EBMUD, and Oakland HMD to identify available records related to regulatory permits, inspections, and any other files pertaining to regulatory history of the site.

DTSC prepared a preliminary assessment related to the 1999 U.S. EPA directed emergency response action dated 12 June 2002, which found that no further action was needed at the site.<sup>1</sup> After completion of the assessment, all files pertaining to the site were sent to the Oakland HMD (the CUPA), and no documents were retained by DTSC (Hilf, 2004).

BASELINE submitted telephone and formal requests for file review to BAAQMD and EBMUD in early December, but has not received authorization to review files as of 5 January 2005. As a result, the information pertaining to the regulatory and permitting history discussed below are from the files reviewed at the Oakland HMD and/or telephone conversations with agency staff.

In a telephone conversation, the BAAQMD indicated that Francis Plating had a permit which was current to 2000. No violations appeared to have been recorded against that permit (Richardson, 2004). The only BAAQMD records available at the Oakland HMD pertain to air monitoring performed during the emergency response to the 1992 fire.

Available inspection reports reviewed at the Oakland HMD indicate that the ACEH inspected the site in 1989, 1991, and 1994. In 1989, the inspection report noted that the HMMP for the facility needed to be updated and required proper labeling of unlabeled or inadequately labeled hazardous materials. In 1991, additional revisions to the HMMP and map to reflect current inventory were required. In 1994, the inspection report noted that a sump was full and had not been emptied (ACEH, 1989, 1991, 1994).

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<sup>1</sup> The preliminary assessment is available on the internet (<http://www.dtsc.ca.gov/database/Calsites/> - search for Site ID 01330049).



Inspection reports by the Oakland HMD were available from 1995, 1996, and 1997 (Oakland Fire Department, 1995, 1996, 1997). A number of violations were noted as quoted below:

#### 1995

- "Emergency contacts not provided"
- "Personnel training program inadequate"
- "Hazardous materials not located in designated areas as indicated on the site map"
- "Containers are not clearly labeled with chemical name and hazard class"
- "Secondary containment is inadequate"

#### 1996

- "Remove inaccurate labels"
- "Dispose of all wastes within 90 days"
- "Separate incompatibles or provide designated areas for oxidizers and flammables"
- "Create containment area for wastes"
- "Keep containers closed when not in use"
- "New HMBP"

#### 1997

- "Remove nickel waste from exterior of building"
- "Provide containment for cyanide baths, should hold total volume"
- "New HMBP for small cyanide baths, large nickel acid tank, anodizing and etching"
- "Waste storage has been a violation, stormwater threat, will follow up"

Prior to 1996, EBMUD issued a permit to Francis Plating to discharge treated wastewater to the municipal sewer. In 1996, EBMUD served the facility with two violation notices for discharging wastewater with elevated levels of nickel. In the fourth quarter of 1996, EBMUD ordered the facility to cease wastewater discharge, and the facility discontinued discharging and sealed the on-site sewer connection with cement (E&E, 2000). After this time, the facility treated wastewater on site under a "permit-by-rule" for on-site hazardous waste treatment and an authorization to operate a fixed treatment unit issued by DTSC.

On 26 August 1998, EBMUD conducted an inspection which found that the site was abandoned with large quantities of plating solutions in open tanks and improper storage of hazardous materials and wastes (EBMUD, 1998). The inspection was referred to the Oakland HMD on 1 September 1998, noting that the site posed a health risk to people and property. The Oakland HMD requested assistance from U.S. EPA, and in December 1998, U.S. EPA began a time-critical removal action which is documented in the Assessment and Removal Report (E&E, 2000). At this time U.S. EPA was listed as the lead agency.

In 2003, the Oakland HMD completed a contaminated site case transfer request to transfer regulatory function for the site to the ACEH.

## 2.4 Site Operations

Tables 1 and 2 list chemicals, maximum quantities, and storage and process locations reported by Francis Plating in the HMMP prepared in 1987 and the HMBP prepared in 1993 (Francis Plating, 1987, 1993). The 1987 HMMP did not contain a map showing specific chemical storage locations. The 1993 HMMP contained a fairly detailed map which shows the same general layout as that shown on Figure 2. Ecology and Environment prepared three detailed layout maps of the site during the 1999 emergency response action, which were composited into Figure 2. These maps were not drawn to scale so features shown in Figures 2 and 3 should be considered approximate.

Since at least 1993, the site was divided into three areas: the plating building in the northeast corner, the "rear yard" in the southeast corner, and the "front yard" throughout the western half of the site (Figure 2). The site is covered with concrete except for small strips of exposed soil along the eastern (along Brush Street) and western (adjacent to the Shell Station) perimeters and the northern perimeter along 7<sup>th</sup> Street (Figure 2).

The plating operations at the site were described in an EBMUD inspection report in 1998 after the facility was abandoned:

Francis Plating historically performed anodizing, passivating, phosphate and chromium conversion coatings, electroless nickel, and electroplating of nickel, cadmium, chromium, silver, and zinc. Interviews with previous production managers by EBMUD as part of their inspection report indicated that the facility performed largely anodizing (approximately 60%) and nickel and cadmium plating (EBMUD, 1998).

The plating building contained tanks for anodizing, acid activation, phosphate coatings, chromium conversion coating, cadmium cyanide plating, chrome plating, electrolytic nickel plating, and nitric acid stripping/passivation (Figure 2). These process tanks had secondary containment consisting of a large sump (25 feet x 70 feet) referred to as the "pit". Nickel process tanks were contained in a separate stainless steel sump in the southwestern portion of the plating building (EBMUD, 1998).

Prior to 1992, plating and anodizing operations, water treatment and acid storage were located in the eastern half of the site, including the rear yard. Electroless nickel and cadmium plating and chromium electroplating were carried out in the long containment sump in the southwestern portion of the site referred to as the "Frog Pond" (Figure 2). Offices, drying ovens and a paint shop were located in the front yard. After the fire, the electroplating operations were moved to the northeastern quarter of the site and the Frog Pond was used as a repository for liquids spilled during onsite treatment. Residual waste from the fire also seemed to have been disposed in the Frog Pond (EBMUD, 1998).

After sealing of the EBMUD sewer connection in 1996, the facility treated wastewater on-site, using the pit in the plating building as a catch basin for spilled plating liquids and rinseate. The front yard was used for waste treatment. Batch pretreatment of wastewater from nickel plating and nitric acid stripping processes was done in this area, and wastewater was contained in the Frog Pond. After increasing the pH in the pit, precipitating metals out of the solution, the excess liquid was pumped

off the top into a 5,000 gallon Baker Tank in the southwestern corner of the front yard. The pH of the residual liquid in the Baker Tank was raised, sent to a boiler and evaporated. Metal precipitates were collected and compressed in a filter press. No records are available indicating how the filter cakes were disposed; it is possible that all precipitates remained onsite until discovered in 1998 during the EBMUD inspection when a large amount of improperly stored filter cake was observed (EBMUD, 1998).

## **2.5 Waste Disposal Practices**

Hazardous waste manifests from Francis Plating are available from 1993, when data tracking began, to 1999 when all operations ceased. Manifest summaries are included as Appendix C showing the description and quantities of wastes transported per year. No manifests were found associated with Erthco Environmental at this site address, although many generator and transporter manifests were associated with Erthco in Sacramento and Rancho Cordova, California.

## **3. SUBSURFACE QUALITY**

Three investigations have been performed at the site. All of these investigations included soil sampling and analysis; groundwater sampling was only performed in 2003. Boring and soil sampling locations from all three studies are shown on Figure 2, groundwater sampling locations are shown on Figure 3, and analytical results are summarized in Tables 3 and 4.

### **3.1 Previous Investigations**

#### **3.1.1 VERSAR - 1993**

Versar, Inc. of Sacramento, California performed a subsurface investigation in 1993. A report of the investigation may never have been prepared. As part of their investigation, Versar appeared to have installed 19 shallow soil borings (BH-1 through BH-19 in Figure 2). Soil samples were analyzed for various combinations of total petroleum hydrocarbons (TPH) as diesel by U.S. EPA Method 8015, volatile organic compounds (VOCs) by U.S. EPA Method 8240, semi-volatile organic compounds (SVOCs) by U.S. EPA Method 8270, polychlorinated biphenyls (PCBs) by U.S. EPA Method 8080, cyanide by U.S. EPA Method 9010, pH by U.S. EPA Method 150.1, and Title 22 metals.

Analytical results tabulated in draft preliminary results were listed as "Significant Laboratory Results of Soil Samples" which did not contain all analytes or reporting limits. These results are included in Table 3. Laboratory reports were not included and the summary table was labeled "draft". The criteria Versar used to determine which results were considered "significant" are unknown. Based on the limited documentation available, it appears that groundwater sampling was recommended as a follow up to the draft report, but may never have been conducted.

#### **3.1.2 ECOLOGY AND ENVIRONMENT - 2000**

Ecology and Environment (2000) was contracted by U.S. EPA to perform sampling as part of the 1999 emergency response action. The sampling effort mainly involved characterization of stored liquids, sludges, and sediments contained in tanks, pits, and ponds, all located above the concrete

pavement. All of these materials were subsequently removed from the site. Soil samples were collected in July of 1999 and analyzed for selected metals and total cyanide only.<sup>2</sup> All laboratory results associated with the soil samples are included in Table 3.

Surface soils were removed from several locations as part of the emergency response action to ensure that remaining surface soils did not contain cadmium, chromium, nickel, and lead concentrations above U.S. EPA Industrial Preliminary Remedial Goal (PRGs). During the removal action, soil was removed from the following areas:

- Exposed surface soil in the rear yard along Brush Street to a depth of one foot below ground surface (bgs) (soil represented by sampling locations RY-SS-1, RY-SS-2, and RY-SS-3 in Figure 2). Additional six to 12 inches of soil was excavated from the vicinity of RY-SS-3.
- Exposed surface soil at the rear of the Front Yard to a depth of one foot (soil represented by sampling locations FY-SS-1, FY-SS-4, FY-SS-5, FY-SS-6, and FY-SS-8 in Figure 2).
- Exposed soil in "Tree Well B" to a depth of six inches bgs.

### **3.1.3 BASELINE - 2003**

BASELINE performed a soil and groundwater investigation in 2003 (BASELINE, 2003). Results of subsurface soil analyses are summarized in Table 3 (soil samples) and Table 4 (groundwater samples). A total of seven soil borings were advanced by direct-push methods, using a double-barrel coring device, to depths ranging from 16 to 25 feet bgs (B-FP1 through B-FP7 in Figure 2), and two monitoring wells were installed (MW-FP1 and MW-FP2 in Figure 3).

Soil samples were analyzed for Title 22 metals (U.S. EPA Method 6000/7000 Series), TPH as gasoline and diesel (U.S. EPA Method 8015M), VOCs (U.S. EPA Method 8260B), polycyclic aromatic hydrocarbons (PAHs) (U.S. EPA Method 8310), PCBs (U.S. EPA Method 8082), pH (U.S. EPA Method 9045C), hexavalent chromium (U.S. EPA Method 7196A) and cyanide (U.S. EPA Method 7196A). Soil samples were collected at approximately two feet and five feet bgs (in the fill and just beneath the fill/native material interface). Soil samples from these shallow intervals were analyzed initially. One composite sample of the native material was created from seven-foot interval samples from the front yard and the second from seven-foot samples collected in the rear yard. Both composites were analyzed. All deeper soil samples (to approximately 16 to 25 feet bgs) were screened in the field, but laboratory analyses were not performed based on the analytical results from shallower intervals. Analytical results are summarized in Table 3.

Groundwater samples were collected from the two wells installed during the investigation (MW-FP1 and MW-FP2 in Figure 3). In addition, grab groundwater samples were collected from two boreholes to assess groundwater quality directly beneath the property (B-FP4 and B-FP5 in Figure

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<sup>2</sup> Field screening for metals was performed using a field-portable X-ray fluorescence spectrophotometer; results of the X-ray fluorescence screening are not summarized in this report because of the uncertainties in the data. These results are contained in the assessment and removal report (E&E 2000).

3). These groundwater and grab samples were analyzed for TPH, VOCs, PAHs, PCBs, and cyanide. Finally, a grab groundwater sample was also collected from boring B-FP3 and analyzed for TPH to assess the potential presence of petroleum hydrocarbons which might have migrated from the adjacent Shell Service Station site. Analytical results for groundwater samples are summarized on Table 4.

### 3.2 Soil Quality

All available analytical results determined by a laboratory for soil samples collected at the site are summarized in Table 3. Results associated with the 2003 BASELINE investigation were discussed in detail in the report for that investigation (BASELINE, 2003). With a few exceptions, the results from the Versar and Ecology and Environment samples were consistent with those from the BASELINE investigation. Since the Versar investigation was not formally documented and only partial draft results (without laboratory reports) are available, those data are not considered definitive. (*acceptable*)

During the Versar investigation, PAHs were identified at boring BH-6, located just west of the pit inside the plating building. This is consistent with the findings from the 2003 BASELINE investigation, where PAHs were identified in boring B-FP7, which was located in the same area (Table 3 and Figure 2).

Several metals were identified during the Versar and Ecology and Environment sampling efforts at higher concentrations than those generally observed during the BASELINE investigation. These metals were cadmium, lead, and nickel. In several shallow soil samples, cadmium and/or nickel were above Oakland Tier 1 risk-based screening levels and the Total Threshold Limit Concentrations (TTLC) (Table 3). One of the samples collected by Ecology and Environment exceeded the TTLC for lead. Soluble lead and nickel concentrations determined using the Waste Extraction Test (WET) exceeded the Soluble Threshold Limit Concentration in several samples collected by Versar (Table 3).

### 3.3 Groundwater Quality

Groundwater samples were only collected during the 2003 BASELINE investigation. Those results were discussed in detail in the report for that investigation (BASELINE, 2003).

## 4. CONCLUSIONS

This report has presented a comprehensive historic land use review of the site. In addition, a thorough search of regulatory agency records related to the former plating operations has been completed. The site is currently capped with concrete and vacant. Therefore, there is no existing human health risk posed by constituents present in the subsurface. Present development plans are for construction of a multi-story building for residential use. It is our understanding that the planned building would be entirely aboveground, with no underground story or garage. We also understand that the design for the planned building would completely isolate the existing soil from future occupants by foundations, asphalt, and/or concrete. All landscaping would be planted in above-

ground containers using imported soil. At a minimum, risk management measures would need to be developed to ensure that construction workers would be protected from constituents in the soil during the initial phase of construction before the soils are capped, to ensure that excess soil excavated during construction would be classified appropriately prior to off-site disposal, and to specify procedures to be used if unknown contamination were to be discovered during construction activities.

## 5.0 REFERENCES

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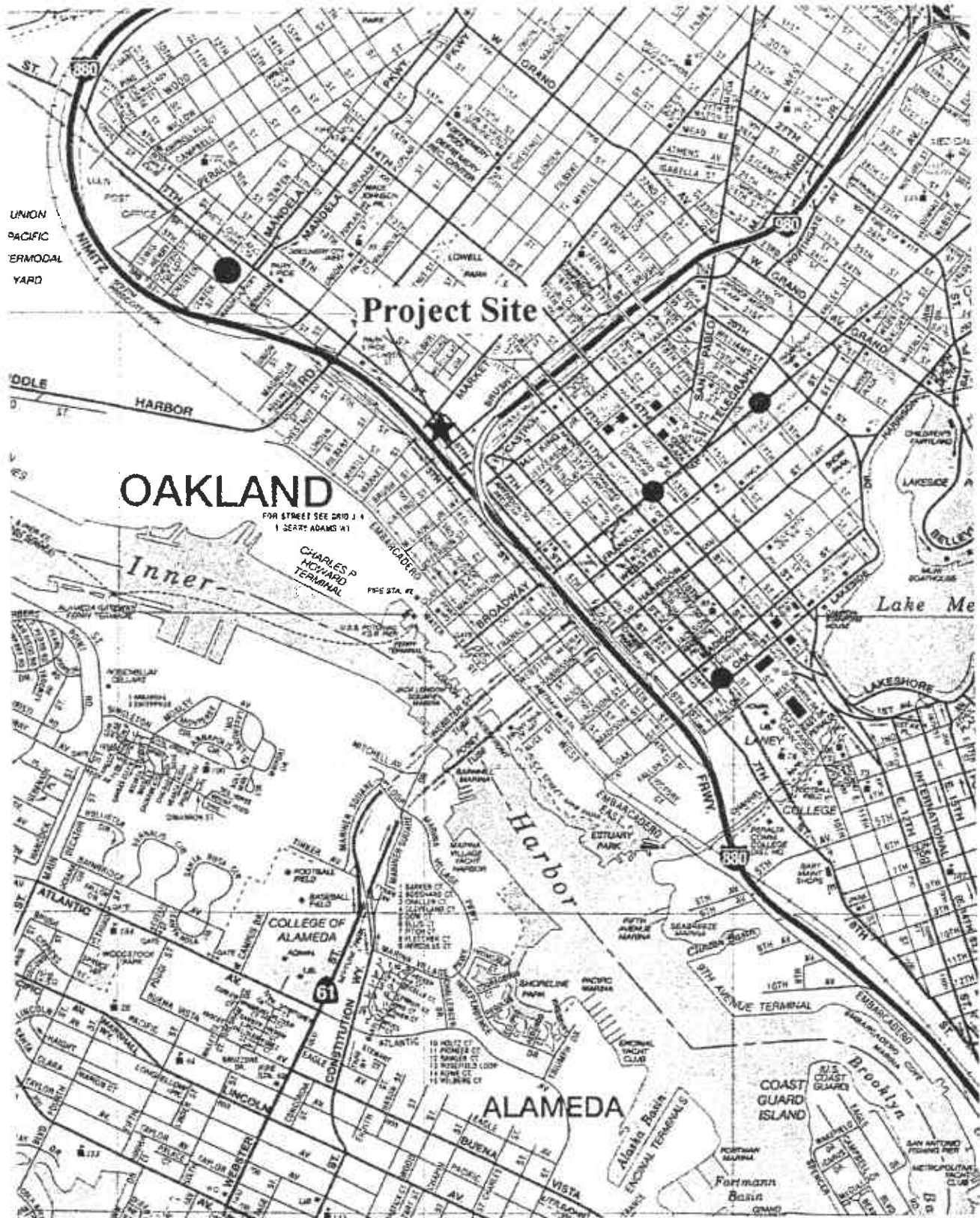
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# REGIONAL LOCATION

Figure 1



UNION  
PACIFIC  
ERMOTAL  
YARD

**OAKLAND**

FOR STREET SEE GRID J 4  
1 SEART ADAMS W1

CHARLES P  
MCWARD  
TERMINAL

**Project Site**

Inner

Harbor

**ALAMEDA**

Lake Me

COAST  
GUARD  
ISLAND

**785 7th Street  
Oakland, California**

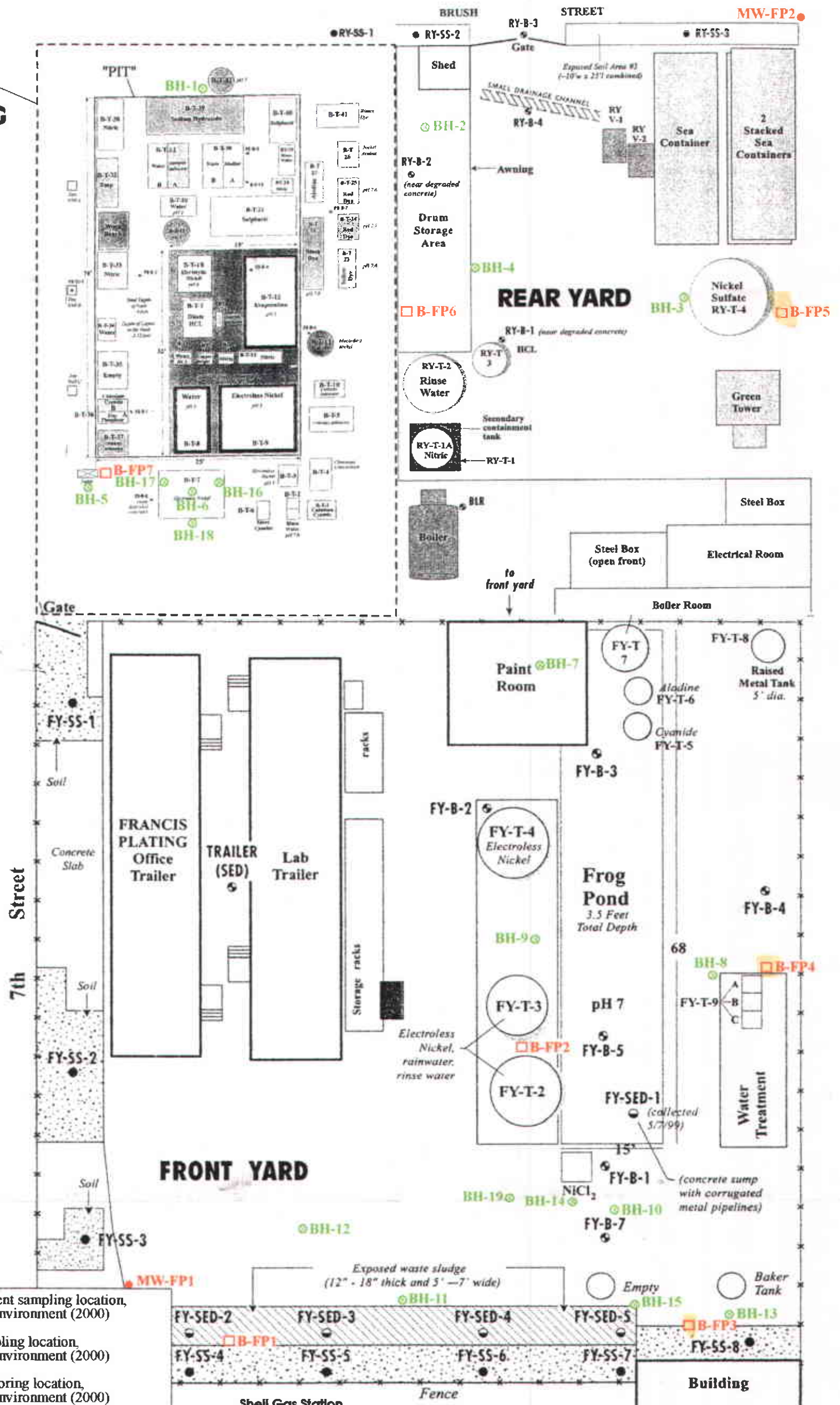




# CHEMICAL STORAGE AND SOIL SAMPLING LOCATIONS

Figure 2

**PLATING BUILDING**



**Legend**

- FY-SED-2** ● Waste sediment sampling location, Ecology & Environment (2000)
- FY-SS-7** ● Surface sampling location, Ecology & Environment (2000)
- FY-B-2** ● Subsurface boring location, Ecology & Environment (2000)
- BH-5** ● Boring location, Versar (1993)
- B-FP5** □ Boring location, BASELINE (2003)
- MW-FP2** ◆ Monitoring well location, BASELINE (2003)

Notes: All non-permanent features and all chemicals and wastes shown on this figure have been removed. They are shown for illustration only.

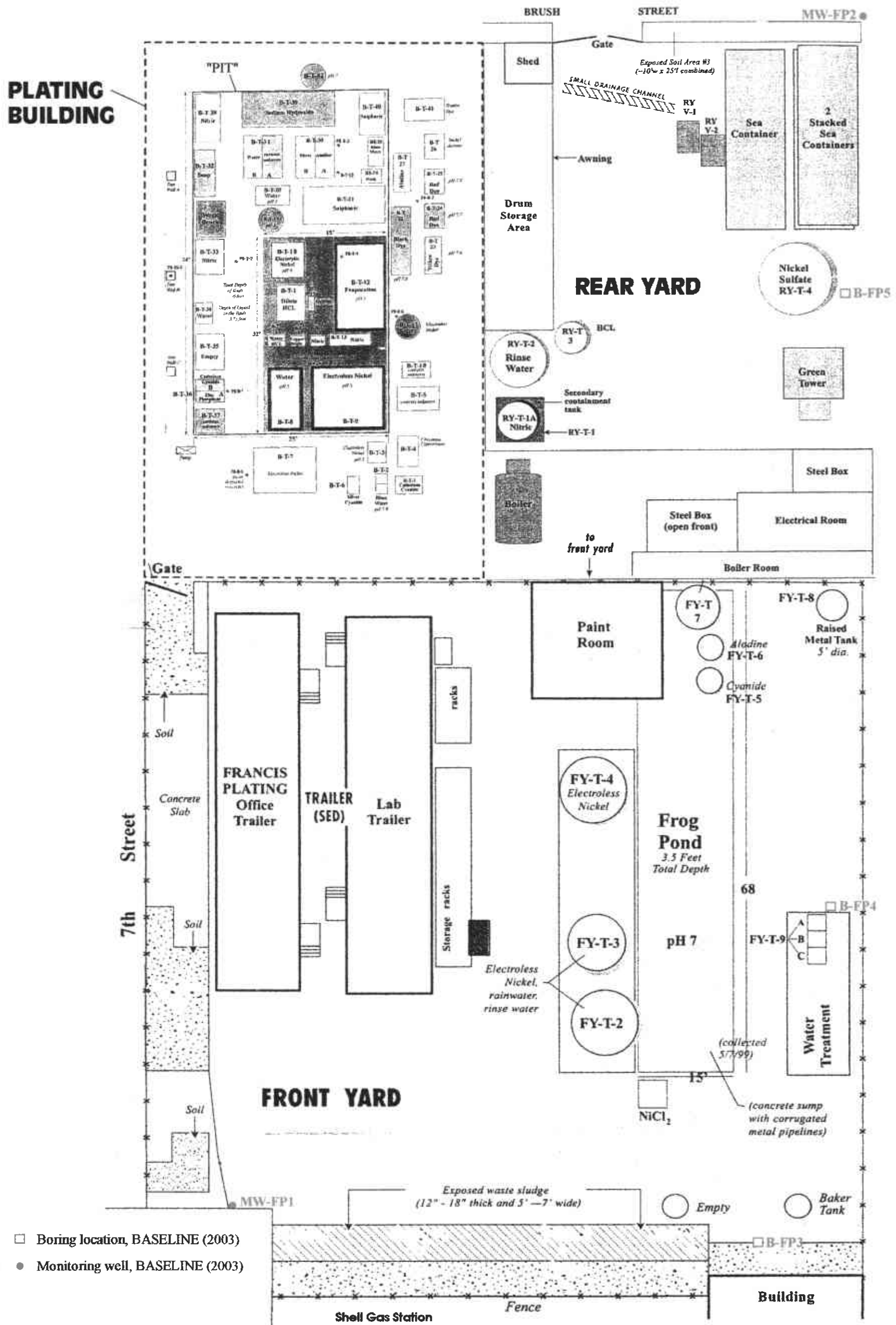
This figure is a composite of three figures created at different scales by Ecology and Environment. All locations should be considered approximate.

Source: Ecology and Environment, Inc. (2000).

**785 7th Street  
Oakland, California**

Not to Scale  
**BASELINE**

# CHEMICAL STORAGE AND GROUNDWATER SAMPLING LOCATIONS Figure 3



- Legend
- P-FP5    □ Boring location, BASELINE (2003)
  - MW-FP2    ● Monitoring well, BASELINE (2003)

Notes: All non-permanent features and all chemicals and wastes shown on this figure have been removed. They are shown for illustration only.

This figure is a composite of three figures created at different scales by Ecology and Environment. All locations should be considered approximate.

Source: Ecology and Environment, Inc. (2000).

**785 7th Street  
Oakland, California**

Not to Scale  
**BASELINE**

TABLE 1: Hazardous Materials Inventory-1987  
785 - 7<sup>th</sup> Street, Oakland, California

Maximum Daily Amount	Chemical or Mixture	Historic Location
200 gal.	Sodium diethyldithiocarbamate 38% ("Bulfoc 528")	Building*
30 gal.	Zinc dihydrogen phosphate 12%	Building*
	Zinc nitrate 12%	
	Phosphoric acid 12% ("Gronodine")	
200 gal.	Sulfuric acid 98%	Rear yard (sea containers location)
100 gal.	Hydrochloric acid 95%	Rear yard (sea containers location)
50 gal.	Propionic acid 100%	Rear yard (sea containers location)
10 gal.	Molybdenum disulfide 5%	Building*
	Graphite 2%	
	Solvent 20%	
	Solvent 50% ("Everlube")	
50 gal.	Stoddard solvent 75%	Building*
400 lb.	Caustic soda 90%	Building*
400 lb.	Sodium hydroxide 85%	Building*
	Alkaline 15% ("Aluminetch Lf")	
55 gal.	Dimethyl ketone (acetone)	Building*
100 lb.	Chromic acid 25%	Building*
	Sodium fluoride 8%	
	Potassium fluozirconate 8%	
	Potassium fluoborate 25%	
	Potassium ferricyanide 12% ("Alodine")	
500 lb.	Chromium trioxide 100%	Building*
100 lb.	Cadmium cyanide 100%	Building*
100 lb.	Sodium cyanide 100%	Building*
30 gal.	Phosphoric acid 8%	Building*
	Nitric acid 2%	
	Manganese dihydrogen 20%	
	Phosphate ("Gronodine 112")	
50 gal.	Hydroxyacetic acid 70%	Building*
50 gal.	Nitric acid 96%	Building*
4,000 lb.	Calcium hydroxide 95%	Building*
	Calcium hydroxide 5%	
	Magnesium hydroxide 5%	
	Silicon dioxide 1%	
400 lb.	Sodium bisulfate 90%	Building*
	Inorganic fluorides 10% ("Metex M-629")	
1,000 lb.	Sodium carbonate 100%	Building*
50 gal.	Methyl isobutyl ketone 100%	Building*

TABLE 1: Hazardous Materials Inventory 1987 - *continued*

Maximum Daily Amount	Chemical or Mixture	Historic Location
2,000 lb.	Potassium carbonate 91%	Building*
1,000 lb.	Nickel sulfate hexahydrate 100%	Building*
2,000 lb.	Sodium metabisulfite 100%	Building*
4,000 lb.	Sodium hypophosphite 100% Monohydrate	Building*
50 gal.	Toluene 100%	Building*
50 gal.	Methylene chloride 3% Xylene 6% Kerosene 85% CO-630 3% CO-43 3% ("FCC Clean up 101")	Building*
400 lb.	Borates, tetra, sodium salts-decahydrate, pentahydrate	Building*
600 ft. <sup>3</sup>	Acetylene 100%	Building*
600 ft. <sup>3</sup>	Oxygen 100%	Building*
24.5 tons	Calcium hydroxide 5% Nickel hydroxide 12% Trivalent chromium 12% Sodium diethyldithiocarbamate 5% Magnesium oxide 5% Water 60% ("Waste treatment sludge")	Building*

Source: Compiled from detailed inventory sheets included in Hazardous Materials Business Plan dated 30 June 1987 (Francis Plating, 1987).

\* Historic building, located on the western portion of site, destroyed in 1992 fire.

TABLE 2: Hazardous Materials Inventory 1993  
785 - 7<sup>th</sup> Street, Oakland, California

Maximum Daily Amount	Chemical or mixture	Location
55 gal.	Methylene chloride 3% Xylene 6% Kerosene 85% CO-630 3% CO-43 3% ("FCC Clean up 101")	Rear yard-sea containers (south)
55 gal.	Toluene 100%	Rear yard-sea containers (south)
300 gal.	Sodium dimethyldithiocarbamate ("Mid Flocc 1300L")	Rear yard-drum storage area
100 gal.	Zinc phosphate	Rear yard-sea container (north)
400 gal.	Sulfuric acid	Rear yard-boiler location
400 gal.	Hydrochloric acid	Rear yard-boiler location
100 gal.	Propionic acid	Rear yard-boiler location
500 lb.	Sodium hydroxide 90%	Plating building
500 lb.	Sodium hydroxide 85%	Plating building
100 gal.	Acetone	Rear yard-stacked sea containers (south)
100 lb.	"Chromic acid mixture"	Plating building
200 lb.	Cadmium	Rear yard-sea containers (south)
200 lb.	Sodium cyanide 98%	Rear yard-sea containers (south)
4,000 gal.	Nitric acid	Rear yard
150 gal.	Nitric acid	Rear yard-boiler location
100 gal.	Hydroxyacetic acid 70%	Plating building
500 lb.	Sodium bisulfate 90% Inorganic fluorides 10%	Rear yard-sea container (north)
55 gal.	Methyl-isobutyl ketone	Rear yard-sea containers (south)
55 gal.	Methyl-ethyl ketone	Rear yard-sea containers (south)
2,000 lb.	Potassium carbonate	Rear yard-dry chemical storage (steel box ?)
2,400 lb.	Nickel sulfate	Rear yard-dry chemical storage (steel box ?)
2,400 lb.	Sodium metabisulfite 100%	Rear yard-drum storage area

TABLE 2: Hazardous Materials Inventory 1993 - *continued*

Maximum Daily Amount	Chemical or mixture	Location
4,000 lb.	Sodium hypophosphite 100%	Plating building
500 lb.	Borates, tetra, sodium salts-decahydrate	Rear yard stacked sea containers (south)
1,000 ft. <sup>3</sup>	Acetylene	Rear yard-sea container (north)
1,500 ft. <sup>3</sup>	Oxygen	Rear yard-sea container (north)
25 yd. <sup>3</sup>	"Waste treatment sludge"	Rear yard-shed
10 yd. <sup>3</sup>	"Waste treatment sludge"	Rear yard- drum storage area
500 lb.	Sodium dodecylbenzene sulfamate	Rear yard-sea containers (south)
55 gal.	Hydrofluoric, nitric, chromic acid mixture	Rear yard-sea containers (south)
5,000 lb.	Magnesium oxide 90%	Rear yard- drum storage area
5,000 gal.	Nickel sulfate, sodium hypophosphite, sodium hydroxide mixture	Rear yard
5,000 gal.	Nickel sulfate, sodium hypophosphite, sodium hydroxide mixture	Rear yard
5,000 gal.	Nickel sulfate, sodium hypophosphite, sodium hydroxide mixture	Plating building
500 lb.	Sodium dichromate 100%	Rear yard-sea container (north)
300 lb.	Zinc	Rear yard-sea containers (south)
300 lb.	Zinc cyanide	Rear yard-sea containers (south)
100 gal.	Glacial acetic acid	Rear yard-boiler location

Source: Compiled from detailed inventory sheets included in Hazardous Materials Management Plan (Francis Plating, 1993).



TABLE 3: Summary of Analytical Results, Soil, 785 - 7th Street, Oakland

Boring ID	Oakland RBCA RBSLs			BH-1 <sup>1</sup>	BH-2 <sup>1</sup>	BH-4 <sup>1</sup>	BH-6 <sup>1</sup>	BH-6 <sup>1</sup>	BH-8 <sup>1</sup>	BH-9 <sup>1</sup>	BH-10 <sup>1</sup>	BH-10 <sup>1</sup>	BH-11 <sup>1</sup>	BH-11 <sup>1</sup>	BH-13 <sup>1</sup>	BH-13 <sup>1</sup>	BH-14 <sup>1</sup>	BH-14 <sup>1</sup>	BH-14 <sup>1</sup>	BH-15 <sup>1</sup>	BH-15 <sup>1</sup>	BH-17 <sup>1</sup>	
	Sample Depth (ft. bgs, except where noted)	Tier 1 RBSLs for Surficial Soil - Residential (<1 meter)	Tier 1 RBSLs for Subsurface Soil - Indoor Air Residential (>1 meter)	Tier 1 RBSLs for Subsurface Soil - Outdoor Air Residential (>1 meter)	1.5	1.0	2.0	1.5	14.0	2.0	2.0	5.0	15.5	2.0	13.5	2.0	15.5	7.0	12.5	15.5	6.5	15.0	3.0
Date Collected				1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
				Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
<b>Metals (mg/kg)</b>																							
Antimony	--	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Arsenic	0.32	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Barium	5,200	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Beryllium	370	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Cadmium	37	--	--	*	*	*	*	*	*	14 (1.2)	*	*	*	*	*	*	*	*	*	*	*	*	*
Chromium (Total)	74,000	--	--	*	*	52	*	63	*	120	*	66	*	74	*	93	*	67	*	51	50	*	*
Hexavalent Chromium	1.3	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Cobalt	--	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Copper	2,800	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lead	--	--	--	330 (21)	*	*	500 (34)	*	*	*	*	*	*	*	67	*	*	*	*	*	*	*	67
Molybdenum	--	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Nickel	1,500	--	--	*	660 (66)	580 (42)	610 (96)	*	*	350 (33)	1,100 (200)	1,300	*	*	*	260	1,300	1,200	1,000	530	330	*	*
Selenium	370	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Silver	370	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Thallium	--	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Vanadium	520	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Zinc	22,000	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mercury	4.7	12	40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>CYANIDE (mg/kg)</b>	3,000	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>VOCs (µg/kg)</b>																							
Toluene	9,000,000	--	--	*	*	*	*	*	*	*	*	*	16	*	*	*	*	*	*	*	*	*	*
1,1,1-Trichloroethane	1,800,000	260,000	870,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Trichloroethene	19,000	1,100	3,000	*	*	*	*	*	*	*	*	*	*	26	*	*	*	*	*	*	*	*	*
Xylenes	54,000,000	--	--	*	*	*	*	*	23	*	*	*	29	*	*	*	*	*	*	*	*	*	*
<b>PAHs (µg/kg)</b>																							
Naphthalene	2,000,000	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Acenaphthylene	3,100,000	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Acenaphthene	3,100,000	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Fluorene	2,100,000	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Phenanthrene	16,000,000	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Anthracene	16,000,000	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Fluoranthene	2,100,000	SAT	SAT	*	*	*	7,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Pyrene	1,600,000	SAT	SAT	*	*	*	11,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzo (a) Anthracene	250	SAT	SAT	*	*	*	3,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Chrysene	2,500	SAT	SAT	*	*	*	4,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzo (b) Fluoranthene	250	SAT	SAT	*	*	*	5,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzo (k) Fluoranthene	250	SAT	SAT	*	*	*	3,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzo (a) Pyrene	25	SAT	SAT	*	*	*	7,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dibenz (a,h) Anthracene	74	SAT	SAT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzo (g,h,i) Perylene	210,000	SAT	SAT	*	*	*	7,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Indeno (1,2,3-c,d) Pyrene	250	SAT	SAT	*	*	*	5,000	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>PCBs (µg/kg)</b>	50	69,000	190,000	*	*	*	*	*	*	*	*	*	*	*	9	*	*	*	*	*	*	*	*
<b>TPH (mg/kg)</b>																							
as Gasoline	--	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
as Diesel	--	--	--	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>pH (pH units)</b>	--	--	--	*	*	8.04	*	*	*	*	12.1	*	*	*	*	*	*	*	*	*	*	*	*

TABLE 3: Summary of Analytical Results, Soil, 785 - 7th Street, Oakland

Boring ID	Oakland RBCA RBSLs			BH-19 <sup>1</sup>	BH-19 <sup>1</sup>	BH-19 <sup>1</sup>	FY-SS-1R <sup>2</sup>	FY-SS-1AR <sup>2</sup>	FY-SS-2 <sup>2</sup>	FY-SS-4R <sup>2</sup>	FY-SS-5R <sup>2</sup>	FY-SS-6R <sup>2</sup>	FY-SS-8R <sup>2</sup>	FY-SS-9R <sup>2</sup>	RY-SS-1 <sup>2,3</sup>	RY-SS-1 <sup>2</sup>	RY-SS-1R <sup>2</sup>	RY-SS-2 <sup>2,3</sup>	RY-SS-2 <sup>2</sup>	RY-SS-2R <sup>2</sup>	RY-SS-3A <sup>2</sup>	
	Sample Depth (ft. bgs, except where noted)	Tier 1 RBSLs for Surficial Soil - Residential (<1 meter)	Tier 1 RBSLs for Subsurface Soil - Indoor Air Residential (>1 meter)	Tier 1 RBSLs for Subsurface Soil - Outdoor Air Residential (>1 meter)	3.0	8.5	14.5	Unknown	Unknown	0	Unknown	Unknown	Unknown	Unknown	1	0	1	Unknown	0	1	Unknown	Unknown
Date Collected				1993	1993	1993	10/1999	10/1999	07/1999	10/1999	10/1999	10/1999	10/1999	10/1999	07/1999	07/1999	10/1999	07/1999	07/1999	10/1999	10/1999	
				Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
<b>Metals (mg/kg)</b>																						
Antimony	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.32	--	--	*	*	*	1.4	7.4	3.2	2.5	4.1	2.6	4.1	3.5	4.9	1.9	2.8	6.2	2.4	1.8	1.2	
Barium	5,200	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	370	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	37	--	--	*	*	*	1.3	20	9.4	3.1	6.2	4.5	4.4	2.1	3	0.32	7.4	15	0.41	0.7	12	
Chromium (Total)	74,000	--	--	72	68	54	26	92	72	33	46	140	54	43	730	31	210	390	29	68	13	
Hexavalent Chromium	1.3	--	--	*	*	*	--	--	--	--	--	--	--	--	ND <sup>UJ</sup>	--	--	--	--	--	--	--
Cobalt	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	2,800	--	--	*	*	*	9.7	56	52	21	19	50	26	22	72'	6.4'	110	93'	9.6'	24	100	
Lead	--	--	--	*	*	*	25	70	58	89	43	68	88	220	680'	4.7'	250	220'	41'	150	22	
Molybdenum	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	1,500	--	--	*	*	*	37	340	140	41	130	370	210	73	100	17	300	250	18	70	53	
Selenium	370	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	370	--	--	*	*	*	ND	ND	ND	ND	ND	ND	ND	ND	0.92	ND	ND	1.8	ND	ND	ND	
Thallium	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	520	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	22,000	--	--	*	*	*	150	390	110	140	92	85	130	80	250'	20'	200	200'	45'	99	58	
Mercury	4.7	12	40	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>CYANIDE (mg/kg)</b>	3,000	--	--	*	*	*	--	--	ND <sup>UJ</sup>	--	--	--	--	--	ND	ND	--	7.7'	ND	--	--	
<b>VOCs (µg/kg)</b>																						
Toluene	9,000,000	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	1,800,000	260,000	870,000	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	19,000	1,100	3,000	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes	54,000,000	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>PAHs (µg/kg)</b>																						
Naphthalene	2,000,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	3,100,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	3,100,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	2,100,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	16,000,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	16,000,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	2,100,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	1,600,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Anthracene	250	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	2,500	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (b) Fluoranthene	250	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (k) Fluoranthene	250	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Pyrene	25	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz (a,h) Anthracene	74	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (g,h,i) Perylene	210,000	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno (1,2,3-c,d) Pyrene	250	SAT	SAT	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>PCBs (µg/kg)</b>	50	69,000	190,000	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>TPH (mg/kg)</b>																						
as Gasoline	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
as Diesel	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH (pH units)	--	--	--	*	*	*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



TABLE 3: Summary of Analytical Results, Soil, 785 - 7th Street, Oakland

Boring ID	Oakland RBCA RBSLs			RY-SS-3B <sup>1</sup>	RY-SS-3R <sup>2</sup>	RY-B-1 <sup>1</sup>	RY-B-4 <sup>2</sup>	PB-B-1 <sup>2</sup>	PB-B-1 <sup>2a</sup>	B-FP1 <sup>3</sup>	B-FP1 <sup>3</sup>	B-FP1 <sup>3</sup>	B-FP1 <sup>3</sup>	B-FP2 <sup>3</sup>	B-FP2 <sup>3</sup>	B-FP2 <sup>3</sup>					
	Sample Depth (ft. bgs, except where noted)	Tier 1 RBSLs for Surficial Soil - Residential (<1 meter)	Tier 1 RBSLs for Subsurface Soil - Indoor Air Residential (>1 meter)	Tier 1 RBSLs for Subsurface Soil - Outdoor Air Residential (>1 meter)	Unknown	Unknown	0	0	0	0	2.5 <sup>4</sup>	2.5-3.0	5.5 <sup>4</sup>	5.5-6.0	2.5 <sup>4</sup>	2.5-3.0	5.5 <sup>4</sup>				
					10/1999	10/1999	07/1999	07/1999	07/1999	07/1999	2/5/2003	2/5/2003	2/5/2003	2/5/2003	2/5/2003	2/5/2003	2/5/2003				
Date Collected				Result	Result	Result	Result	Result	Result	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.				
<b>Metals (mg/kg)</b>																					
Antimony	--	--	--	--	--	--	--	--	--	--	ND	0.750	--	--	ND	0.750	--	--			
Arsenic	0.32	--	--	--	2.7	2.3	4.7	4.8	3.6	3.7	--	--	1.15	0.750	--	--	1.04	0.750			
Barium	5,200	--	--	--	--	--	--	--	--	--	--	52.7	0.5	--	--	60.2	0.5	--	--		
Beryllium	370	--	--	--	--	--	--	--	--	--	--	ND	0.250	--	--	0.382	0.250	--	--		
Cadmium	37	--	--	--	7.4	7.5	13	130	570	620	--	--	ND	0.500	--	--	ND	0.500	--	--	
Chromium (Total)	74,000	--	--	--	300	220	410	--	44	44	--	--	28.1	0.2	--	--	49.2	0.2	--	--	
Hexavalent Chromium	1.3	--	--	--	--	--	--	0.32 <sup>1</sup>	--	--	--	--	ND	0.05	--	--	0.59	0.05	--	--	
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	3.89	0.25	--	--	16.8	0.2	--	--	
Copper	2,800	--	--	--	140	120	220 <sup>1</sup>	230	5.5 <sup>1</sup>	4.8 <sup>1</sup>	--	--	5.31	0.50	--	--	9.01	0.50	--	--	
Lead	--	--	--	--	450	260	1,600 <sup>1</sup>	700	68 <sup>1</sup>	95 <sup>1</sup>	--	--	2.25	0.50	--	--	3.75	0.50	--	--	
Molybdenum	--	--	--	--	--	--	--	--	--	--	--	ND	0.250	--	--	ND	0.250	--	--		
Nickel	1,500	--	--	--	370	350	7,200	2,000	130	130	--	--	16.1	0.2	--	--	53.6	0.2	--	--	
Selenium	370	--	--	--	--	--	--	--	--	--	--	ND	0.750	--	--	ND	0.750	--	--		
Silver	370	--	--	--	ND	ND	1	1.4	ND	ND	--	--	ND	0.250	--	--	ND	0.250	--	--	
Thallium	--	--	--	--	--	--	--	--	--	--	--	ND	0.750	--	--	ND	0.750	--	--		
Vanadium	520	--	--	--	--	--	--	--	--	--	--	19.6	0.2	--	--	34.8	0.2	--	--		
Zinc	22,000	--	--	--	280	190	630 <sup>1</sup>	660	81 <sup>1</sup>	93 <sup>1</sup>	--	--	14.9	1.0	--	--	23.7	1.0	--	--	
Mercury	4.7	12	40	--	--	--	--	--	--	--	--	ND	0.0835	--	--	ND	0.0835	--	--		
CYANIDE (mg/kg)	3,000	--	--	--	--	--	1.5 <sup>1</sup>	4.4	440	380	--	--	ND	1.0	--	--	ND	1.0	--	--	
<b>VOCs (µg/kg)</b>																					
Toluene	9,000,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane	1,800,000	260,000	870,000	--	--	--	--	--	--	ND	4.9	--	--	ND	4.4	--	--	ND	4.7	--	--
Trichloroethene	19,000	1,100	3,000	--	--	--	--	--	--	ND	4.9	--	--	ND	4.4	--	--	ND	4.7	--	--
Xylenes	54,000,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>PAHs (µg/kg)</b>																					
Naphthalene	2,000,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Acenaphthylene	3,100,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Acenaphthene	3,100,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Fluorene	2,100,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Phenanthrene	16,000,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Anthracene	16,000,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Fluoranthene	2,100,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Pyrene	1,600,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Benzo (a) Anthracene	250	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Chrysene	2,500	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Benzo (b) Fluoranthene	250	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Benzo (k) Fluoranthene	250	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Benzo (a) Pyrene	25	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Dibenz (a,h) Anthracene	74	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Benzo (g,h,i) Perylene	210,000	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
Indeno (1,2,3-c,d) Pyrene	250	SAT	SAT	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
PCBs (µg/kg)	50	69,000	190,000	--	--	--	--	--	--	--	--	ND	50	--	--	ND	50	--	--	ND	50
<b>TPH (mg/kg)</b>																					
as Gasoline	--	--	--	--	--	--	--	--	--	ND	0.19	--	--	ND	0.16	--	--	ND	0.19	--	--
as Diesel	--	--	--	--	--	--	--	--	--	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0
pH (pH units)	--	--	--	--	--	--	--	--	--	--	--	5.9	--	--	--	6.3	--	--	5.7	--	--

TABLE 3: Summary of Analytical Results, Soil, 785 - 7th Street, Oakland

Boring ID Sample Depth (ft. bgs, except where noted) Date Collected	Oakland RBCA RBSLs			B-FP2 <sup>3</sup>		B-FP3 <sup>3</sup>		B-FP3 <sup>3</sup>		B-FP3 <sup>3</sup>		B-FP4 <sup>3</sup>		B-FP4 <sup>3</sup>		B-FP4 <sup>3</sup>		B-FP5 <sup>3</sup>		B-FP5 <sup>3</sup>			
	Tier 1 RBSLs for Surface Soil - Residential (<1 meter)	Tier 1 RBSLs for Subsurface Soil - Indoor Air Residential (>1 meter)	Tier 1 RBSLs for Subsurface Soil - Outdoor Air Residential (>1 meter)	5.5-6.0		1.5 <sup>4</sup>		1.5-2.0		5 <sup>4</sup>		5.0-5.5		2.5 <sup>4</sup>		2.0-2.5		5-5.5		2.5 <sup>4</sup>		2-2.5	
				2/5/2003		2/4/2003		2/4/2003		2/4/2003		2/4/2003		2/4/2003		2/4/2003		2/4/2003		2/4/2003		2/4/2003	
	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	
<b>Metals (mg/kg)</b>																							
Antimony	--	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	ND	0.750	--	--	ND	0.750
Arsenic	0.32	--	--	ND	0.750	--	--	0.928	0.750	--	--	1.42	0.75	--	--	ND	0.750	1.07	0.75	--	--	0.794	0.750
Barium	5,200	--	--	70.6	0.5	--	--	71.1	0.5	--	--	53.3	0.5	--	--	75.6	0.5	43	0.5	--	--	55.9	0.5
Beryllium	370	--	--	0.321	0.250	--	--	ND	0.250	--	--	0.349	0.250	--	--	ND	0.250	0.326	0.250	--	--	ND	0.250
Cadmium	37	--	--	ND	0.500	--	--	ND	0.500	--	--	ND	0.500	--	--	ND	0.500	ND	0.500	--	--	ND	0.500
Chromium (Total)	74,000	--	--	83.4	0.2	--	--	37.5	0.2	--	--	66.8	0.2	--	--	27.3	0.2	47.9	0.2	--	--	36.6	0.2
Hexavalent Chromium	1.3	--	--	ND	0.05	--	--	ND	0.05	--	--	ND	0.05	--	--	ND	0.05	ND	0.05	--	--	ND	0.05
Cobalt	--	--	--	6.88	0.25	--	--	4.43	0.25	--	--	9.7	0.25	--	--	4.05	0.25	10.8	0.2	--	--	3.86	0.25
Copper	2,800	--	--	10.2	0.5	--	--	5.6	0.50	--	--	10.1	0.5	--	--	5.77	0.50	6.61	0.50	--	--	4.79	0.50
Lead	--	--	--	3.33	0.50	--	--	5.04	0.50	--	--	3.54	0.50	--	--	2.43	0.50	3.22	0.50	--	--	2.83	0.50
Molybdenum	--	--	--	ND	0.250	--	--	0.367	0.250	--	--	ND	0.250	--	--	ND	0.250	0.872	0.250	--	--	ND	0.250
Nickel	1,500	--	--	99.2	0.2	--	--	17.2	0.2	--	--	995 (31)	0.250	--	--	16.5	0.2	37	0.2	--	--	17.3	0.2
Selenium	370	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	ND	0.750	--	--	ND	0.750
Silver	370	--	--	ND	0.250	--	--	ND	0.250	--	--	ND	0.250	--	--	ND	0.250	ND	0.250	--	--	ND	0.250
Thallium	--	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	ND	0.750	--	--	ND	0.750
Vanadium	520	--	--	34.9	0.2	--	--	18.2	0.2	--	--	42.5	0.2	--	--	19.1	0.2	32.5	0.2	--	--	20.3	0.2
Zinc	22,000	--	--	24.4	1.0	--	--	15.8	1.0	--	--	24	1.0	--	--	16.5	1.0	45.1	1.0	--	--	13.9	1.0
Mercury	4.7	12	40	ND	0.0835	--	--	ND	0.0835	--	--	ND	0.0835	--	--	ND	0.0835	ND	0.0835	--	--	ND	0.0835
CYANIDE (mg/kg)	3,000	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	ND	1.0	--	--	ND	1.0
<b>VOCs (µg/kg)</b>																							
Toluene	9,000,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	1,800,000	260,000	870,000	--	--	ND	4.7	--	--	ND	4.7	--	--	ND	5	--	--	ND	4.9	5.4	4.4	--	--
Trichloroethene	19,000	1,100	3,000	--	--	24	4.7	--	--	ND	4.7	--	--	ND	5	--	--	ND	4.9	33	4.4	--	--
Xylenes	54,000,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>PAHs (µg/kg)</b>																							
Naphthalene	2,000,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Acenaphthylene	3,100,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Acenaphthene	3,100,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Fluorene	2,100,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Phenanthrene	16,000,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Anthracene	16,000,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Fluoranthene	2,100,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Pyrene	1,600,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Benzo (a) Anthracene	250	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Chrysene	2,500	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Benzo (b) Fluoranthene	250	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Benzo (k) Fluoranthene	250	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Benzo (a) Pyrene	25	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Dibenz (a,h) Anthracene	74	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Benzo (g,h,i) Perylene	210,000	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
Indeno (1,2,3-c,d) Pyrene	250	SAT	SAT	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
PCBs (µg/kg)	50	69,000	190,000	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	ND	50	--	--	ND	50
<b>TPH (mg/kg)</b>																							
as Gasoline	--	--	--	--	--	ND	0.19	--	--	ND	0.17	--	--	ND	0.2	--	--	ND	1.1	ND	0.17	--	--
as Diesel	--	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	ND	1.0	--	--	3.4 <sup>HY</sup>	1.0
pH (pH units)	--	--	--	5.2	--	--	--	7	--	--	--	6.4	--	--	--	5.9	--	7.5	--	--	--	--	



TABLE 3: Summary of Analytical Results, Soil, 785 - 7th Street, Oakland

Boring ID	Oakland RBCA RBSLs			B-FP5 <sup>3</sup>		B-FP5 <sup>3</sup>		B-FP6 <sup>3</sup>		B-FP6 <sup>3</sup>		B-FP6 <sup>3</sup>		B-FP6 <sup>3</sup>		B-FP7 <sup>3</sup>		B-FP7 <sup>3</sup>		B-FP7 <sup>3</sup>		
	Sample Depth (ft. bgs, except where noted)	Tier 1 RBSLs for Surficial Soil - Residential (<1 meter)	Tier 1 RBSLs for Subsurface Soil - Indoor Air Residential (>1 meter)	Tier 1 RBSLs for Subsurface Soil - Outdoor Air Residential (>1 meter)	5.5 <sup>4</sup>		5-5.5		2.5 <sup>4</sup>		2-2.5		5.5 <sup>4</sup>		5-5.5		2.5 <sup>4</sup>		2.5-3.0		5.5 <sup>4</sup>	
					2/4/2003		2/4/2003		2/5/2003		2/5/2003		2/5/2003		2/5/2003		2/5/2003		2/5/2003		2/5/2003	
Date Collected				Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	
<b>Metals (mg/kg)</b>																						
Antimony	--	--	--	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	
Arsenic	0.32	--	--	--	--	0.764	0.750	--	--	3.44	0.75	--	--	1.78	0.75	--	--	4.44	0.75	--	--	
Barium	5,200	--	--	--	--	28.4	0.5	--	--	134	0.500	--	--	49.2	0.5	--	--	108	0.500	--	--	
Beryllium	370	--	--	--	--	ND	0.250	--	--	ND	0.250	--	--	0.339	0.250	--	--	ND	0.250	--	--	
Cadmium	37	--	--	--	--	ND	0.500	--	--	0.689	0.500	--	--	ND	0.500	--	--	ND	0.500	--	--	
Chromium (Total)	74,000	--	--	--	--	34.8	0.2	--	--	220	0.250	--	--	49.1	0.2	--	--	38.8	0.2	--	--	
Hexavalent Chromium	1.3	--	--	--	--	ND	0.05	--	--	ND	0.05	--	--	ND	0.05	--	--	ND	0.05	--	--	
Cobalt	--	--	--	--	--	2.55	0.25	--	--	5.17	0.25	--	--	11.3	0.2	--	--	4.55	0.25	--	--	
Copper	2,800	--	--	--	--	4.6	0.50	--	--	19.7	0.5	--	--	7.76	0.50	--	--	24.6	0.5	--	--	
Lead	--	--	--	--	--	2.08	0.50	--	--	1260 (1.5) (<0.3)	5	--	--	3.95	0.50	--	--	141 <sup>7</sup>	0.500	--	--	
Molybdenum	--	--	--	--	--	ND	0.250	--	--	1.95	0.25	--	--	ND	0.250	--	--	0.65	0.250	--	--	
Nickel	1,500	--	--	--	--	19.3	0.2	--	--	368 (17)	0.250	--	--	320 (26)	0.250	--	--	39	0.2	--	--	
Selenium	370	--	--	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	
Silver	370	--	--	--	--	ND	0.250	--	--	ND	0.250	--	--	ND	0.250	--	--	ND	0.250	--	--	
Thallium	--	--	--	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	ND	0.750	--	--	
Vanadium	520	--	--	--	--	21.6	0.2	--	--	19.3	0.2	--	--	35.8	0.2	--	--	21.5	0.2	--	--	
Zinc	22,000	--	--	--	--	11.4	1.0	--	--	1260	10	--	--	22.3	1.0	--	--	94	1.0	--	--	
Mercury	4.7	12	40	--	--	ND	0.0835	--	--	0.415	0.083	--	--	ND	0.0835	--	--	0.139	0.083	--	--	
<b>CYANIDE (mg/kg)</b>	3,000	--	--	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	--	--	
<b>VOCs (µg/kg)</b>																						
Toluene	9,000,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane	1,800,000	260,000	870,000	ND	4.7	--	--	ND	4.8	--	--	5	4.4	--	--	ND	4.7	--	--	ND	4.5	
Trichloroethene	19,000	1,100	3,000	ND	4.7	--	--	ND	4.8	--	--	ND	4.4	--	--	ND	4.7	--	--	ND	4.5	
Xylenes	54,000,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>PAHs (µg/kg)</b>																						
Naphthalene	2,000,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	1,800	50	--	--	
Acenaphthylene	3,100,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	550	50	--	--	
Acenaphthene	3,100,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	140	50	--	--	
Fluorene	2,100,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	91	50	--	--	
Phenanthrene	16,000,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	1,300	500	--	--	
Anthracene	16,000,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	200	50	--	--	
Fluoranthene	2,100,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	3,000	500	--	--	
Pyrene	1,600,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	4,600	500	--	--	
Benzo (a) Anthracene	250	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	1,500	500	--	--	
Chrysene	2,500	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	2,200	500	--	--	
Benzo (b) Fluoranthene	250	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	2,000	500	--	--	
Benzo (k) Fluoranthene	250	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	850	500	--	--	
Benzo (a) Pyrene	25	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	3,900	500	--	--	
Dibenz (a,b) Anthracene	74	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	2,600	500	--	--	
Benzo (g,h,i) Perylene	210,000	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	3,400	500	--	--	
Indeno (1,2,3-c,d) Pyrene	250	SAT	SAT	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	2,400	500	--	--	
<b>PCBs (µg/kg)</b>	50	69,000	190,000	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	ND	50	--	--	
<b>TPH (mg/kg)</b>																						
as Gasoline	--	--	--	ND	0.18	--	--	ND	0.2	--	--	ND	0.18	--	--	ND	0.21	--	--	ND	0.2	
as Diesel	--	--	--	--	--	ND	1.0	--	--	ND	1.0	--	--	ND	1.0	--	--	3.6 <sup>HV</sup>	1.0	--	--	
pH (pH units)	--	--	--	--	--	7.5	--	--	--	5.9	--	--	--	6.1	--	--	--	9.2	--	--	--	

TABLE 3: Summary of Analytical Results, Soil, 785 - 7th Street, Oakland

Boring ID Sample Depth (ft. bgs, except where noted)	Oakland RBCA RBSLs			B-FP7 <sup>3</sup>		COMP FY <sup>5</sup>		COMP RY <sup>5</sup>	
	Tier 1 RBSLs for Surficial Soil - Residential (<1 meter)	Tier 1 RBSLs for Subsurface Soil - Indoor Air Residential (>1 meter)	Tier 1 RBSLs for Subsurface Soil - Outdoor Air Residential (>1 meter)	5-5.5		7-7.5		7-7.5	
				2/5/2003		2/4-5/2003		2/4-5/2003	
Date Collected				Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.
<b>Metals (mg/kg)</b>									
Antimony	--	--	--	ND	0.750	ND	0.750	ND	0.750
Arsenic	0.32	--	--	ND	0.750	1.19	0.75	ND	0.750
Barium	5,200	--	--	81	0.5	64.2	0.5	66.3	0.5
Beryllium	370	--	--	0.418	0.250	0.278	0.250	0.266	0.250
Cadmium	37	--	--	ND	0.500	ND	0.500	ND	0.500
Chromium (Total)	74,000	--	--	84.6	0.2	54.2	0.2	48.2	0.2
Hexavalent Chromium	1.3	--	--	0.09	0.05	ND	0.05	ND	0.05
Cobalt	--	--	--	7.33	0.25	7.79	0.25	6.87	0.25
Copper	2,800	--	--	9.69	0.50	7.49	0.50	7.79	0.50
Lead	--	--	--	4.11	0.50	2.98	0.50	2.76	0.50
Molybdenum	--	--	--	ND	0.250	ND	0.250	ND	0.250
Nickel	1,500	--	--	164	0.250	75.4	0.2	55.4	0.2
Selenium	370	--	--	ND	0.750	ND	0.750	ND	0.750
Silver	370	--	--	ND	0.250	ND	0.250	ND	0.250
Thallium	--	--	--	ND	0.750	ND	0.750	ND	0.750
Vanadium	520	--	--	46.5	0.2	31.8	0.2	30.6	0.2
Zinc	22,000	--	--	27.7	1.0	22.9	1.0	22.4	1.0
Mercury	4.7	12	40	ND	0.0835	ND	0.0835	ND	0.0835
<b>CYANIDE (mg/kg)</b>	3,000	--	--	11	1.0	ND	1.0	ND	1.0
<b>VOCs (µg/kg)</b>									
Toluene	9,000,000	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	1,800,000	260,000	870,000	--	--	ND	5.1	ND	5.2
Trichloroethene	19,000	1,100	3,000	--	--	ND	5.1	ND	5.2
Xylenes	54,000,000	--	--	--	--	--	--	--	--
<b>PAHs (µg/kg)</b>									
Naphthalene	2,000,000	SAT	SAT	ND	50	ND	50	ND	50
Acenaphthylene	3,100,000	SAT	SAT	ND	50	ND	50	ND	50
Acenaphthene	3,100,000	SAT	SAT	ND	50	ND	50	ND	50
Fluorene	2,100,000	SAT	SAT	ND	50	ND	50	ND	50
Phenanthrene	16,000,000	SAT	SAT	ND	50	ND	50	ND	50
Anthracene	16,000,000	SAT	SAT	ND	50	ND	50	ND	50
Fluoranthene	2,100,000	SAT	SAT	ND	50	ND	50	ND	50
Pyrene	1,600,000	SAT	SAT	ND	50	ND	50	ND	50
Benzo (a) Anthracene	250	SAT	SAT	ND	50	ND	50	ND	50
Chrysene	2,500	SAT	SAT	ND	50	ND	50	ND	50
Benzo (b) Fluoranthene	250	SAT	SAT	ND	50	ND	50	ND	50
Benzo (k) Fluoranthene	250	SAT	SAT	ND	50	ND	50	ND	50
Benzo (a) Pyrene	25	SAT	SAT	ND	50	ND	50	ND	50
Dibenz (a,h) Anthracene	74	SAT	SAT	ND	50	ND	50	ND	50
Benzo (g,h,i) Perylene	210,000	SAT	SAT	ND	50	ND	50	ND	50
Indeno (1,2,3-c,d) Pyrene	250	SAT	SAT	ND	50	ND	50	ND	50
<b>PCBs (µg/kg)</b>	50	69,000	190,000	ND	50	ND	50	ND	50
<b>TPH (mg/kg)</b>									
as Gasoline	--	--	--	--	--	ND	1	ND	0.98
as Diesel	--	--	--	ND	1.0	ND	1.0	ND	1.0
pH (pH units)	--	--	--	8	--	6.2	--	7.4	--

Notes:

RBCA = Risk Based Corrective Action

RBSLs = Risk Based Screening Levels (Oakland, 2000)

Conc. = Concentration

Rpt. Lim. = Laboratory reporting limit

-- = Not analyzed

\* = Result not listed in table titled "Significant Laboratory Results of Soil Samples" (Versar, 1993b)

ft. bgs = Feet below ground surface

mg/kg = Milligrams per kilogram

µg/kg = Micrograms per kilogram

x.x = Concentrations shown in italics exceed Tier 1 Oakland RBCA RBSLs for surficial soil.

(y.y) = Soluble metal concentration as determined using the Waste Extraction Test in mg/L.

(z.z) = Soluble metal concentration as determined using the Toxicity Characterization Leaching Procedure in mg/L.

ND = Not identified above the laboratory reporting limit.

SAT = RBSL exceeds saturated soil concentration of chemical.

Sample locations are shown on Figure 2.

<sup>1</sup> Samples collected by Versar, Inc. (Versar, 1993).

<sup>2</sup> Samples collected by Ecology and Environment (E&E, 2000).

<sup>3</sup> Samples collected by BASELINE Environmental Consulting (BASELINE, 2003).

<sup>4</sup> Sample collected in EnCore™ samplers for VOC and TPH as gasoline analyses.

<sup>5</sup> Composite sample COMP FY was generated using samples B-FP1;7-7.5, B-FP2;7-7.5, B-FP3;7-7.5, and B-FP4;7-7.5.

<sup>6</sup> Composite sample COMP RY was generated using samples B-FP5;7-7.5, B-FP6;7-7.5, and B-FP7;7-7.5

<sup>7</sup> Laboratory did not have sufficient sample to perform soluble lead analysis.

<sup>8</sup> Soil represented by sample was excavated and removed from the site.

<sup>9</sup> Sample was labeled as PB-B-9, this was a blind duplicate for sample PB-B-1 (0-4") (Table 4-1, footnote 4, E&E, 2000).

<sup>10</sup> Heavier hydrocarbons contributed to the quantification.

<sup>11</sup> Estimated detect.

<sup>12</sup> Estimated non-detect.

<sup>13</sup> Sample exhibits fuel pattern which does not resemble standard.

TABLE 4: Summary of Analytical Results, Groundwater, 785 - 7th Street, Oakland

Well/Boring ID	Oakland RBCA RBSLs			B-FP3-grab		B-FP4-grab		B-FP5-grab		MW-FP1		MW-FP2	
	Date Collected	Tier 1 RBSLs for Groundwater - Inhalation of Indoor Air - Residential	Tier 1 RBSLs for Groundwater - Inhalation of Outdoor Air - Residential	2/4/2003		2/5/2003		2/5/2003		2/12/2003		2/12/2003	
				Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.	Conc.	Rpt. Lim.
<b>Metals (µg/L)</b>													
Antimony	--	--	--	--	--	ND	60	ND	60	ND	60	ND	60
Arsenic	--	--	50	--	--	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Barium	--	--	1,000	--	--	110	10	62	10	67	10	74	10
Beryllium	--	--	4.0	--	--	ND	2.0	ND	2.0	ND	2.0	ND	2.0
Cadmium	--	--	5.0	--	--	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Cobalt	--	--	--	--	--	ND	20	ND	20	ND	20	ND	20
Chromium (total)	--	--	16,000	--	--	ND	10	17	10	ND	10	61	10
Hexavalent Chromium	--	--	50	--	--	ND	10	10	10	ND	10	70	10
Copper	--	--	1,300	--	--	ND	10	ND	10	ND	10	ND	10
Molybdenum	--	--	--	--	--	ND	20	ND	20	ND	20	ND	20
Nickel	--	--	100	--	--	32	20	96	20	24	20	ND	20
Lead	--	--	--	--	--	ND	3.0	ND	3.0	ND	3.0	ND	3.0
Selenium	--	--	50	--	--	ND	5.0	11	5.0	ND	5.0	ND	5.0
Silver	--	--	100	--	--	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Thallium	--	--	--	--	--	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Vanadium	--	--	110	--	--	ND	10	ND	10	ND	10	ND	10
Zinc	--	--	4,700	--	--	ND	20	ND	20	ND	20	ND	20
Mercury	260	16,000	2	--	--	ND	0.2	ND	0.2	ND	0.2	ND	0.2
<b>CYANIDE (mg/L)</b>	--	--	200	--	--	ND	0.01	ND	0.01	ND	0.01	ND	0.01
<b>VOCs (µg/L)</b>													
Trichloroethene	690	41,000	5.0	--	--	21	5.0	42	5.0	ND	5.0	ND	5.0
<b>PAHs (µg/L)</b>	various	various	various	--	--	ND	1.0	ND	1.0	ND	0.09-1.9	ND	0.09-1.9
<b>PCBs (µg/L)</b>	23	320	0.5	--	--	ND	1.0	ND	1.0	ND	0.49-0.97	ND	0.49-0.97
<b>TPH (µg/L)</b>													
Gasoline	--	--	--	150 <sup>Y,Z</sup>	50	ND	50	ND	50	ND	50	ND	50
Diesel	--	--	--	ND	50	ND	50	ND	50	260 <sup>H,Y</sup>	50	110 <sup>H,Y</sup>	50

TABLE 4: Summary of Analytical Results, Groundwater, 785 - 7th Street, Oakland

Notes:

RBCA = Risk Based Corrective Action

RBSLs = Risk based Screening Levels (Oakland, 2000)

Conc. = Concentration

Rpt. Lim. = Laboratory reporting limit

-- = Not analyzed or not available

ND = Not identified above the laboratory reporting limit.

µg/L = micrograms per liter

mg/L = milligrams per liter

*x.x* = Concentration shown in italics exceed Tier 1 RBSL for ingestion of groundwater.

Sample locations are shown on Figure 3.

<sup>11</sup> Heavier hydrocarbons contributed to the quantification.

<sup>Y</sup> Sample exhibits fuel pattern which does not resemble standard.

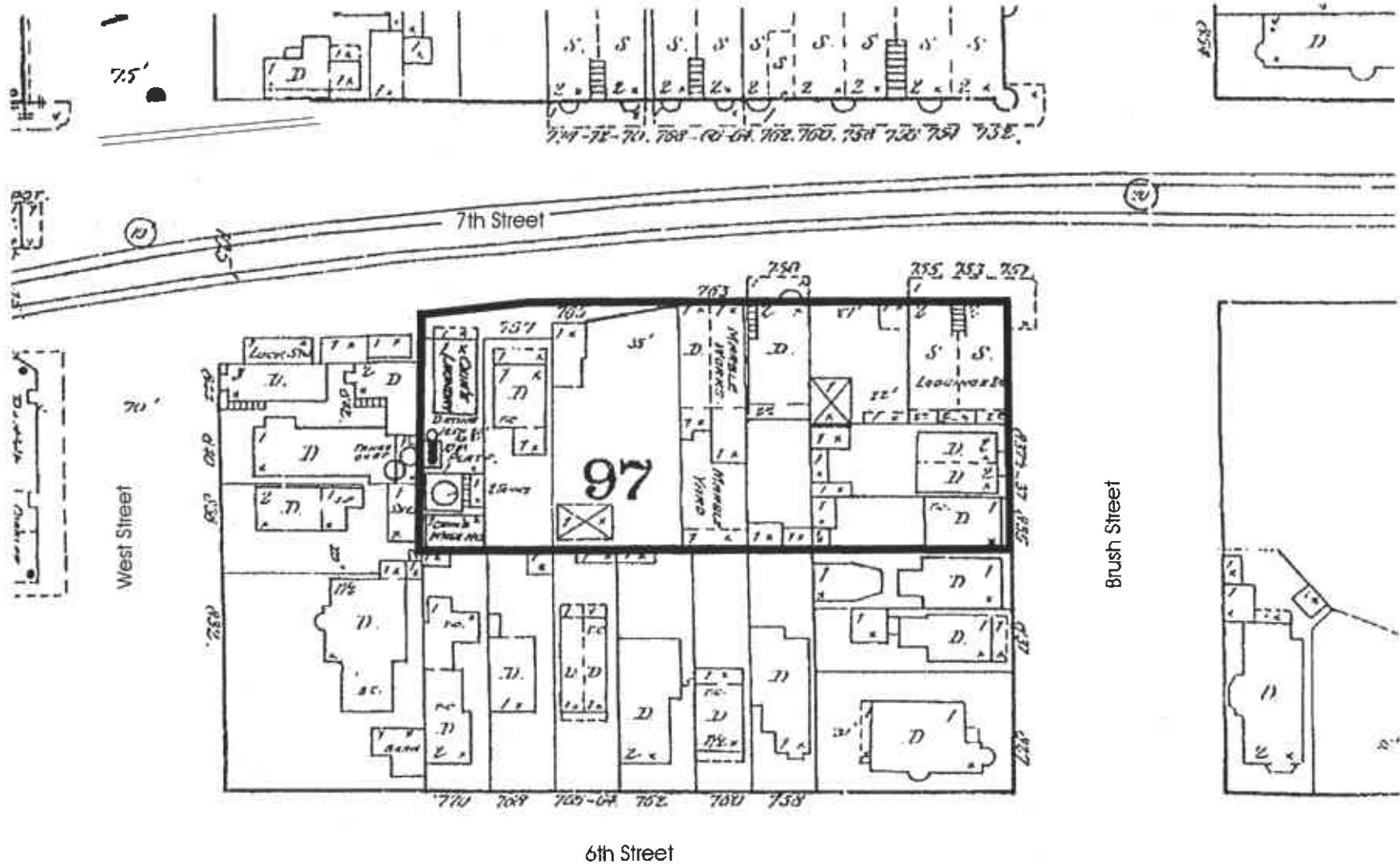
<sup>Z</sup> Sample exhibits unknown single peak or peaks.

**APPENDIX A**

**SANBORN FIRE INSURANCE MAPS**

# SANBORN MAP - 1889

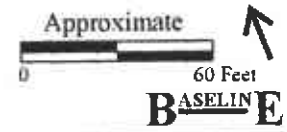
# Figure A1



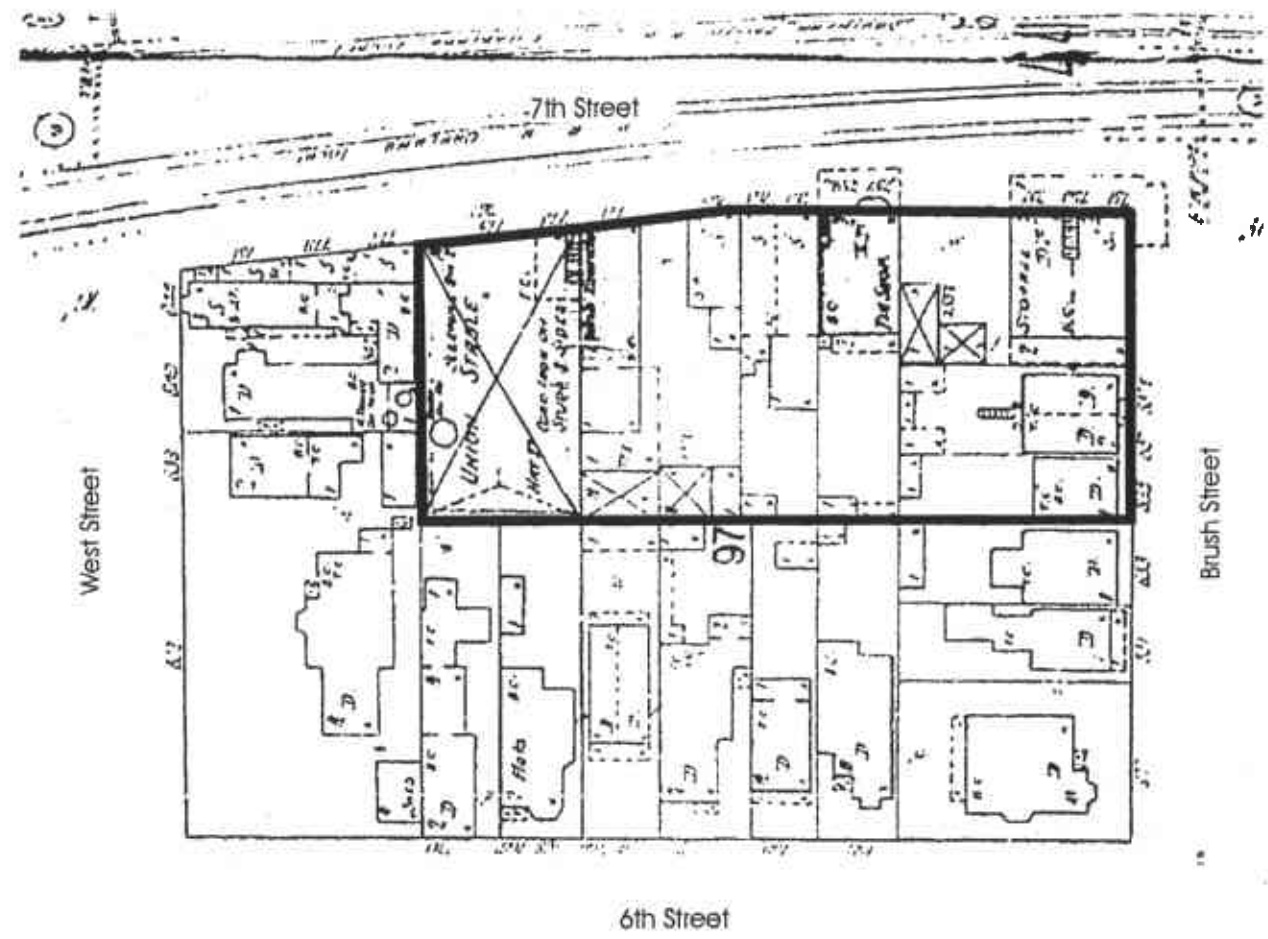
### Legend

**—** Approximate Project Site Boundary

## Brush Street Oakland, California



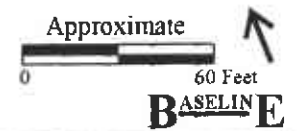




Legend

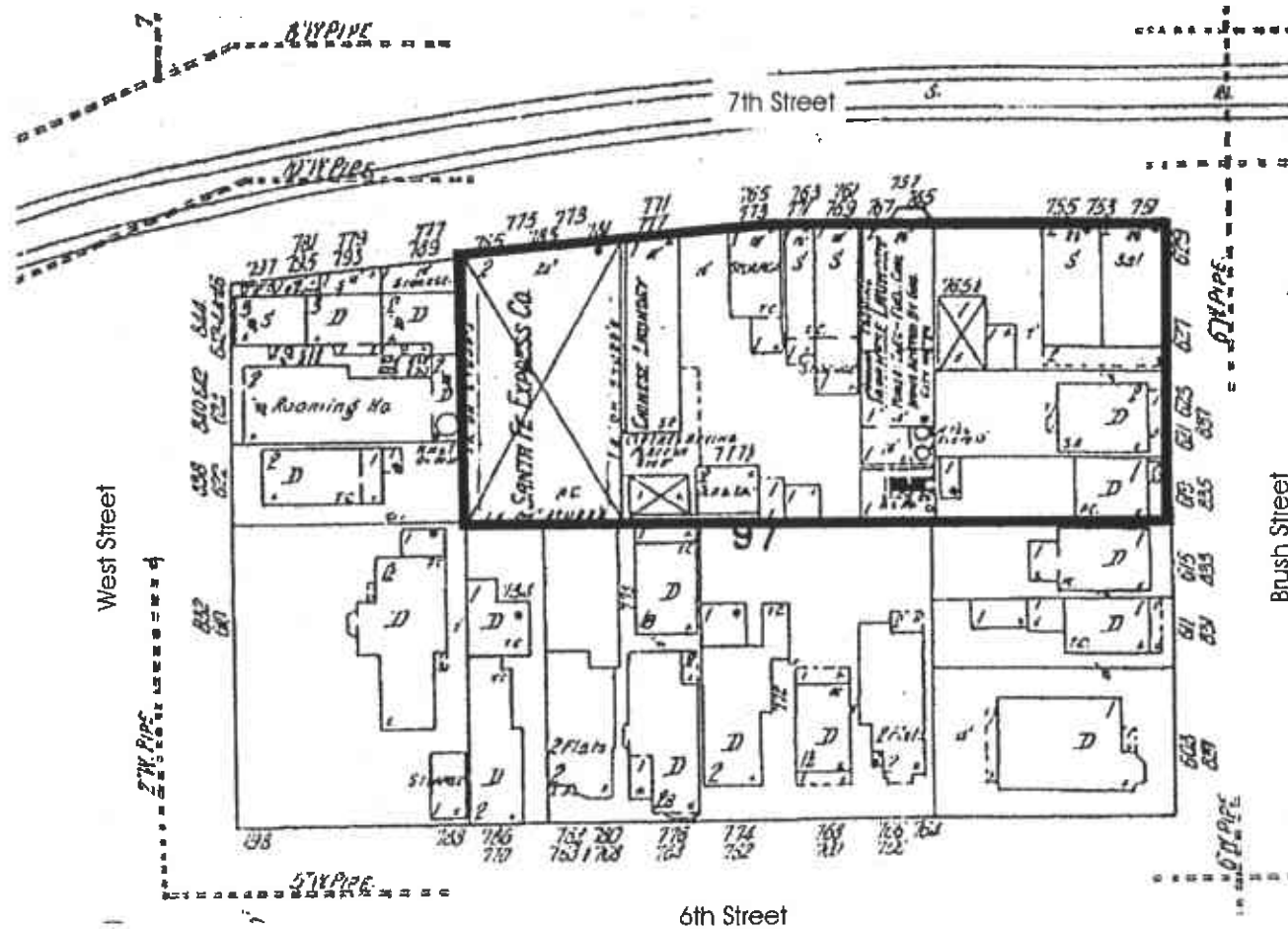
**—** Approximate Project Site Boundary

**Francis Plating  
Oakland, California**



# SANBORN MAP - 1912

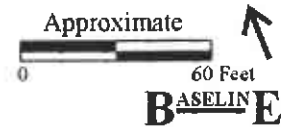
# Figure A3

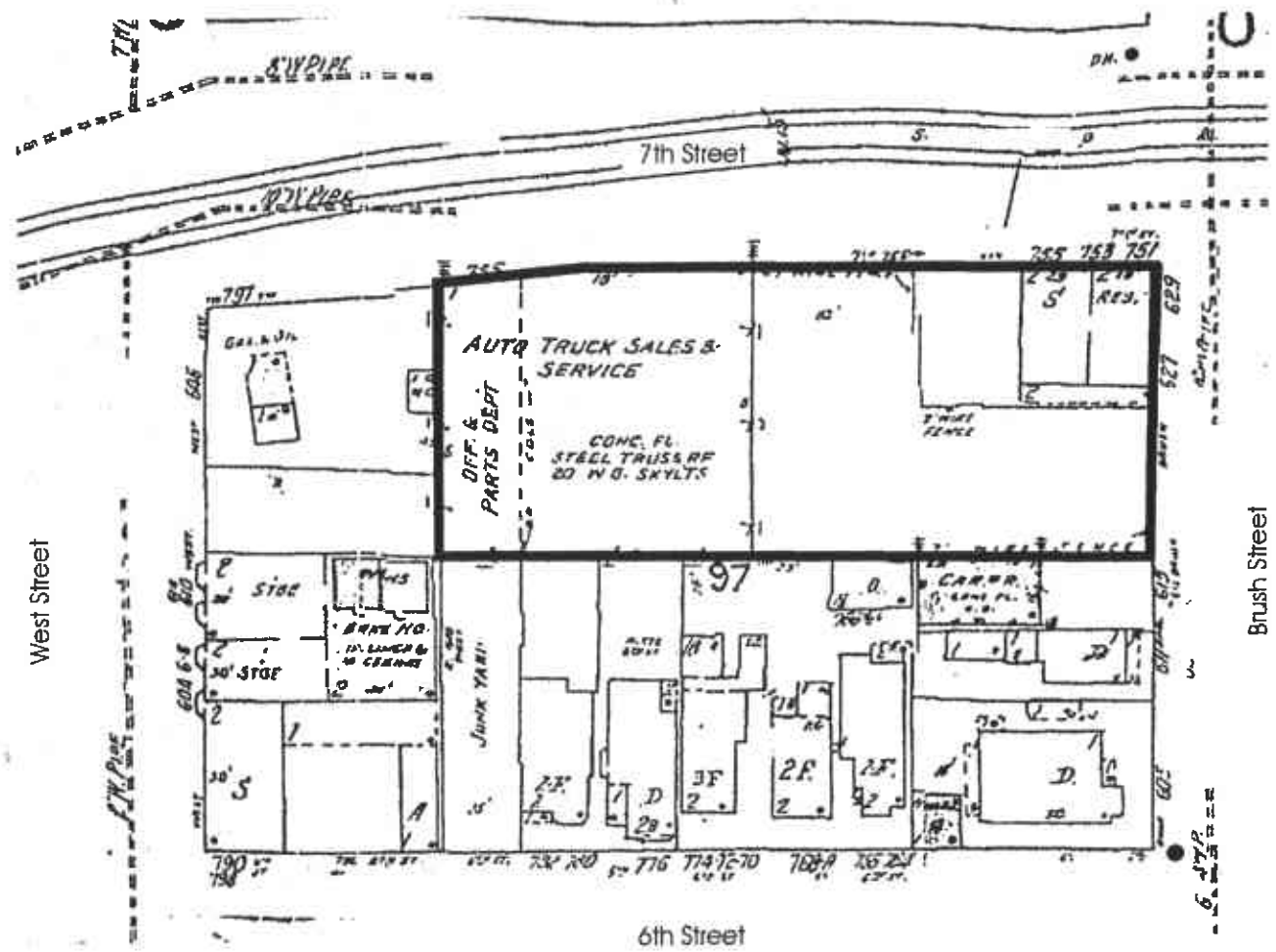


### Legend

— Approximate Project Site Boundary

## Francis Plating Oakland, California



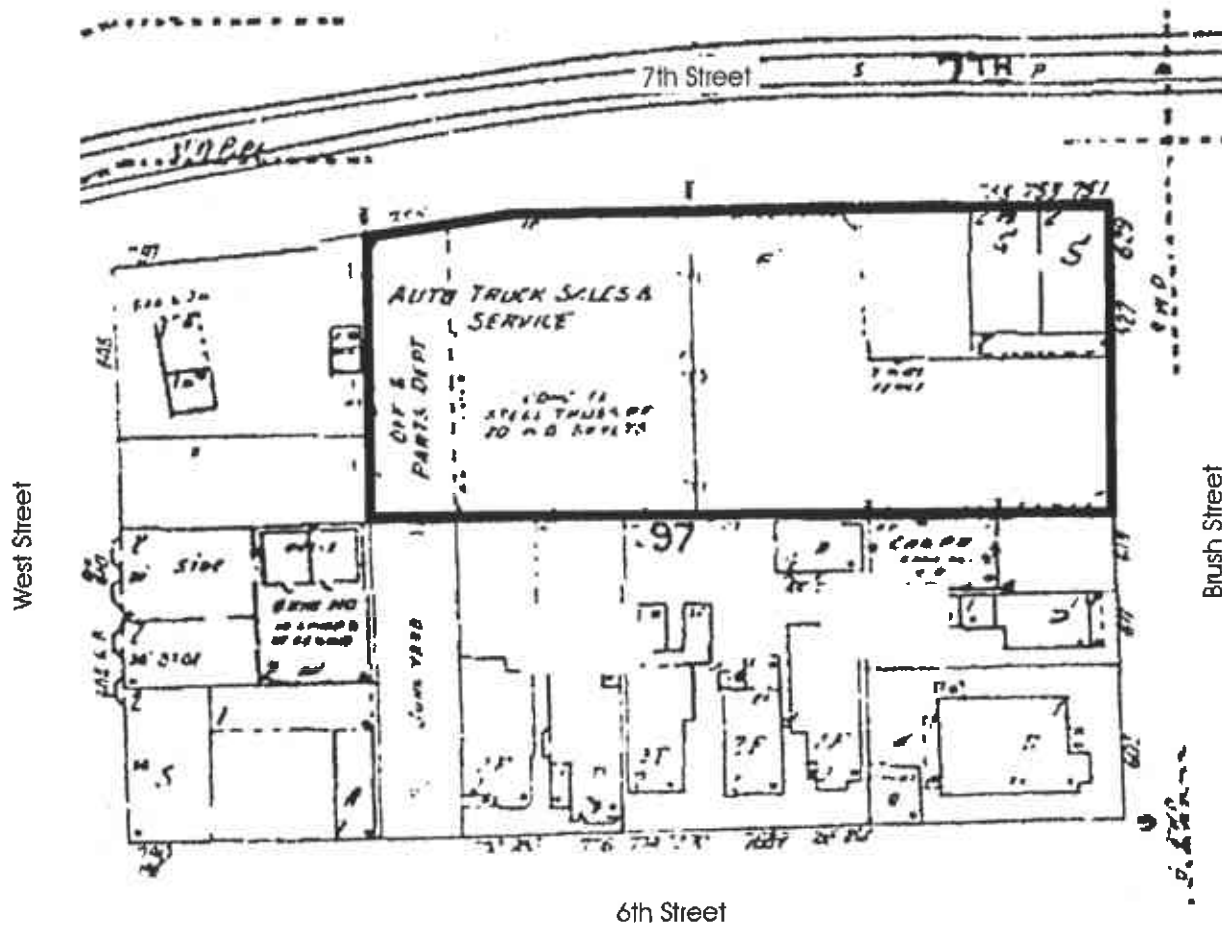


Legend

— Approximate Project Site Boundary

Francis Plating  
Oakland, California



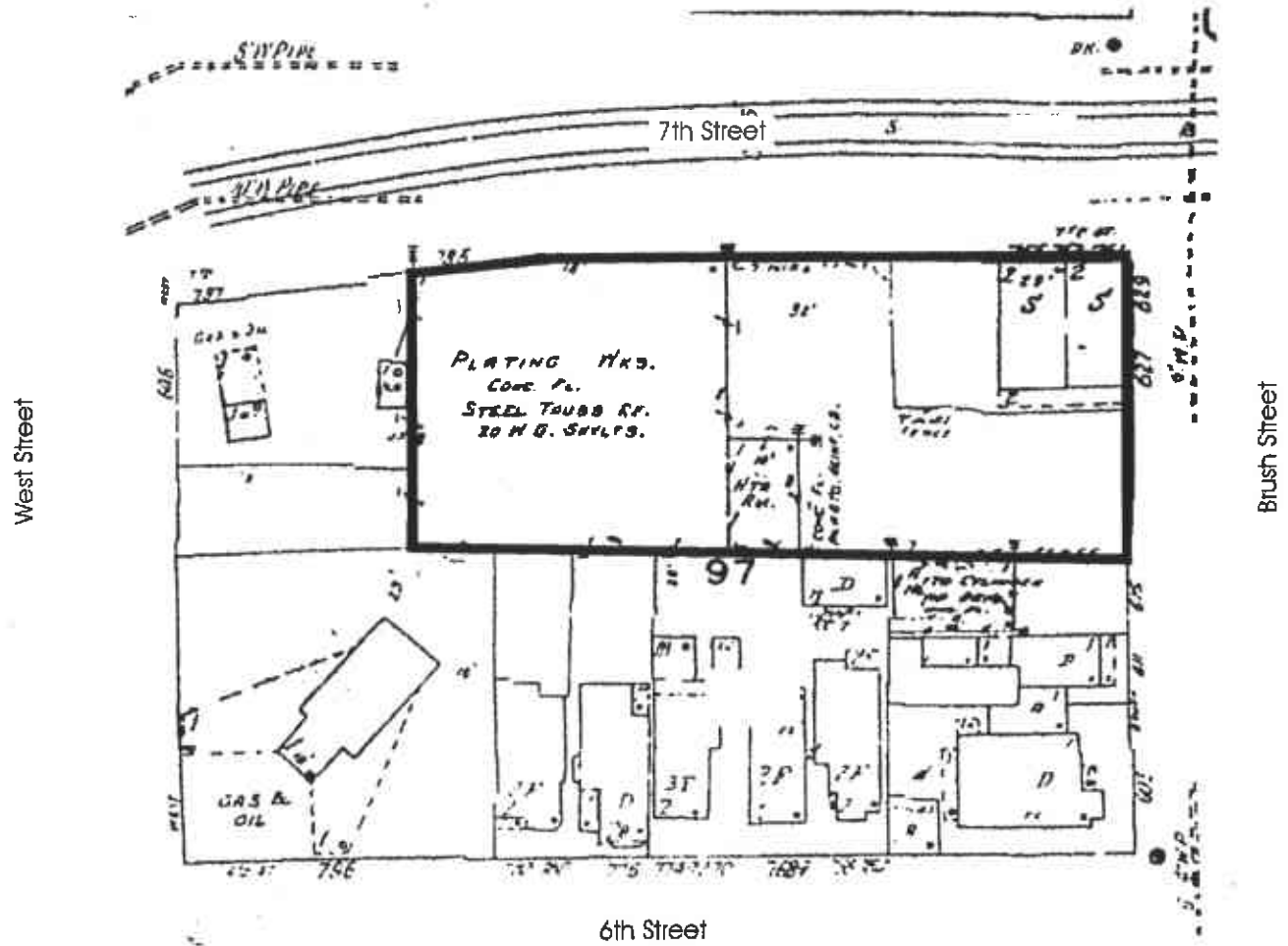


Legend

— Approximate Project Site Boundary

**Francis Plating**  
**Oakland, California**

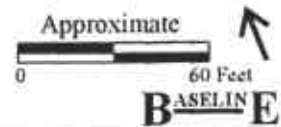


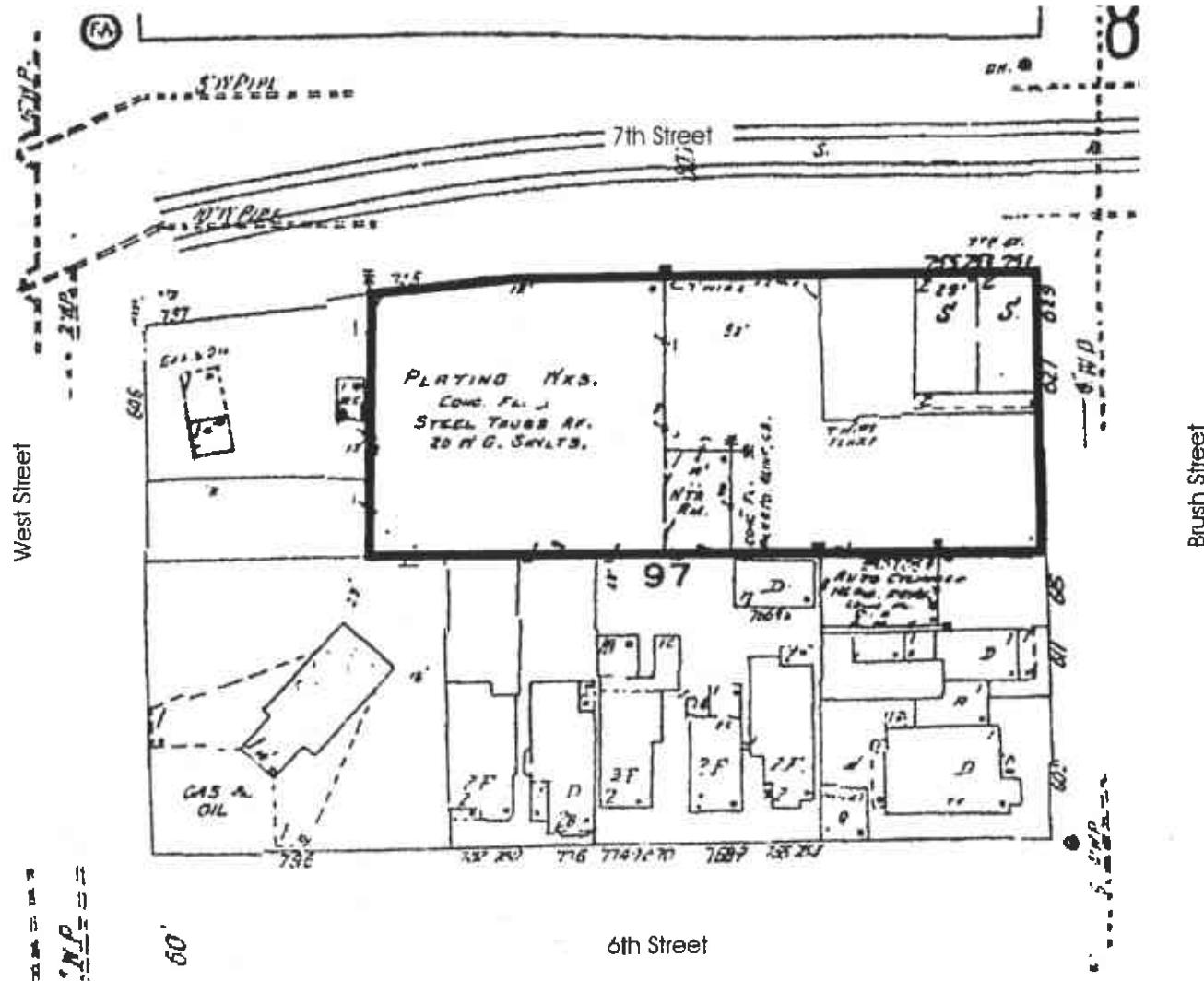


Legend

**—————** Approximate Project Site Boundary

**Francis Plating  
Oakland, California**



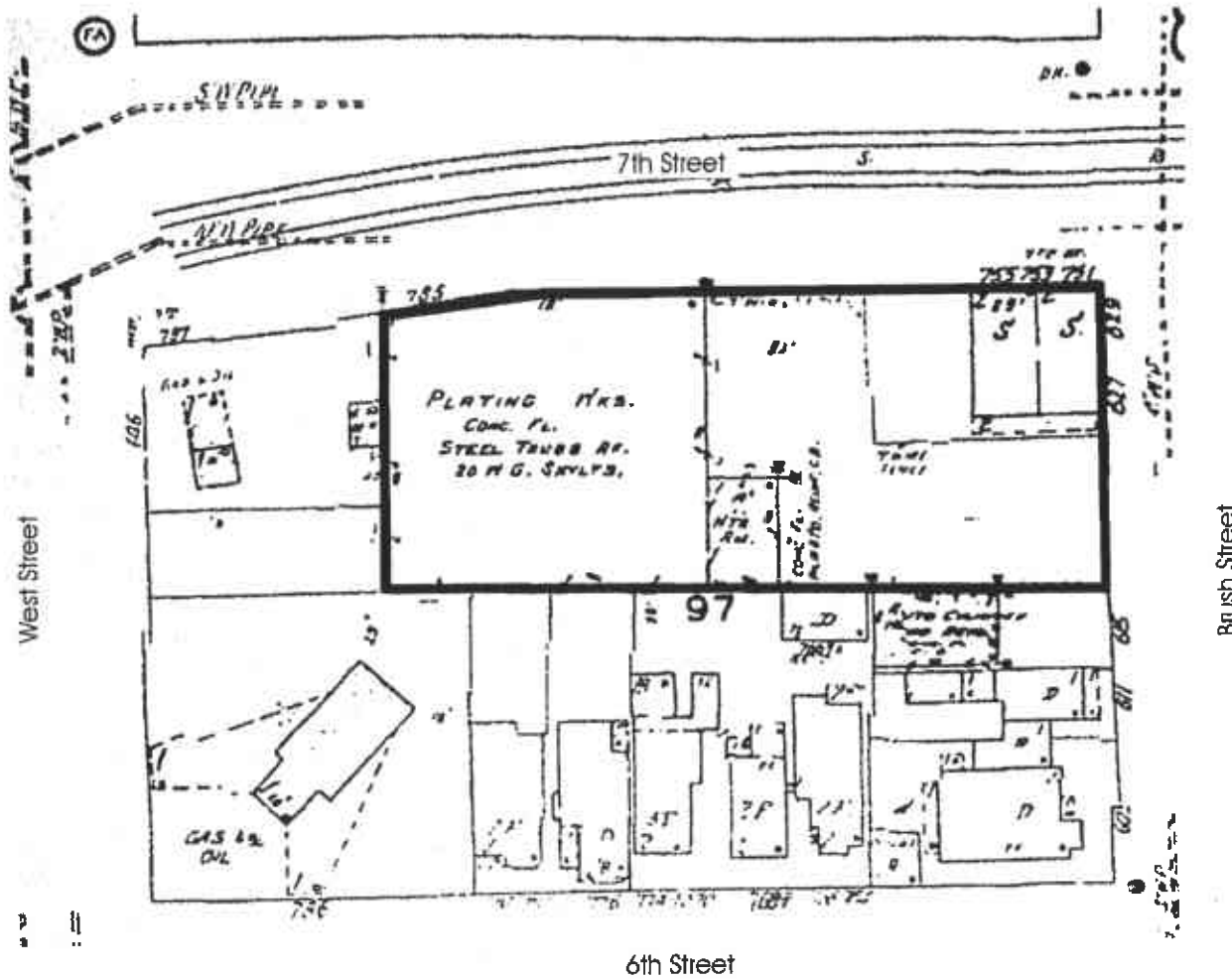


Legend

— Approximate Project Site Boundary

**Francis Plating**  
**Oakland, California**

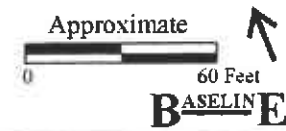


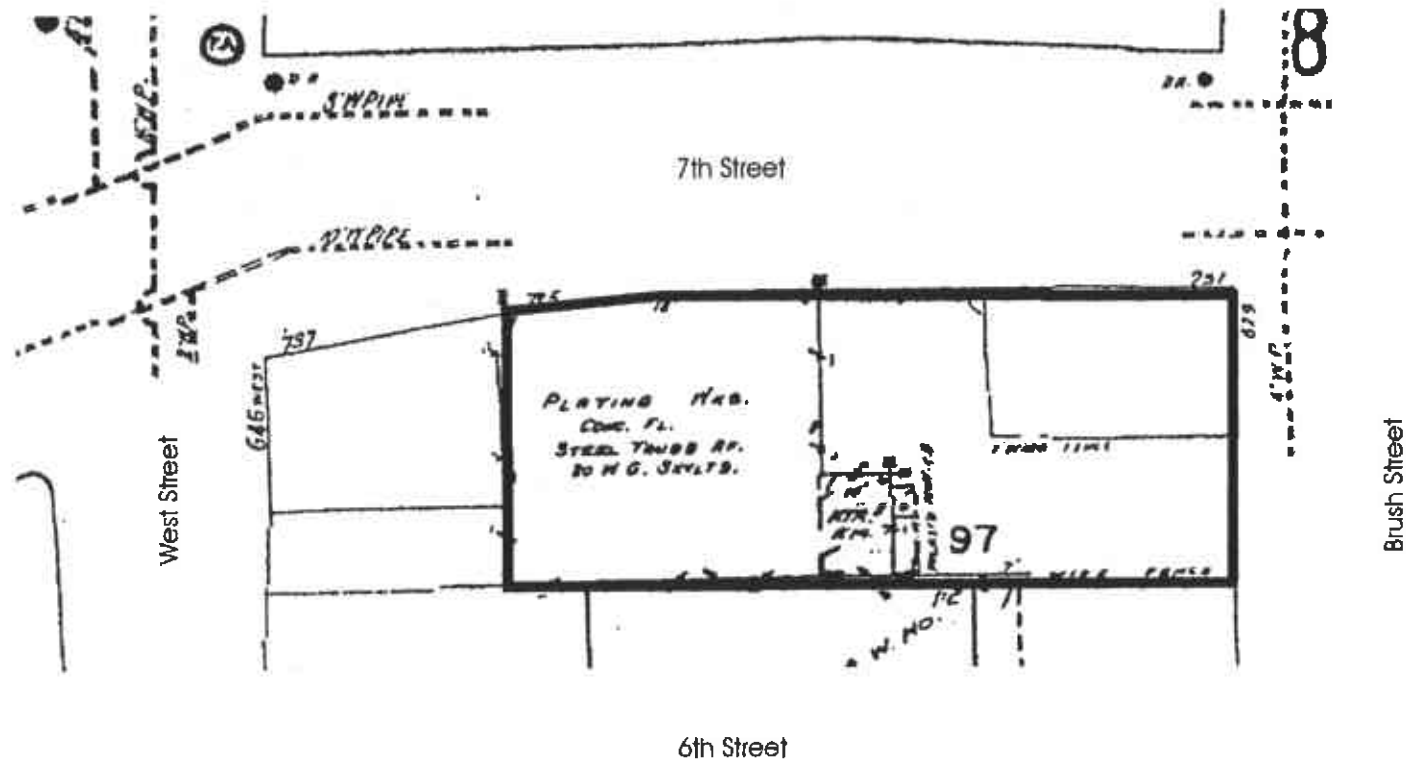


Legend

— Approximate Project Site Boundary

**Francis Plating**  
**Oakland, California**

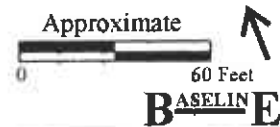




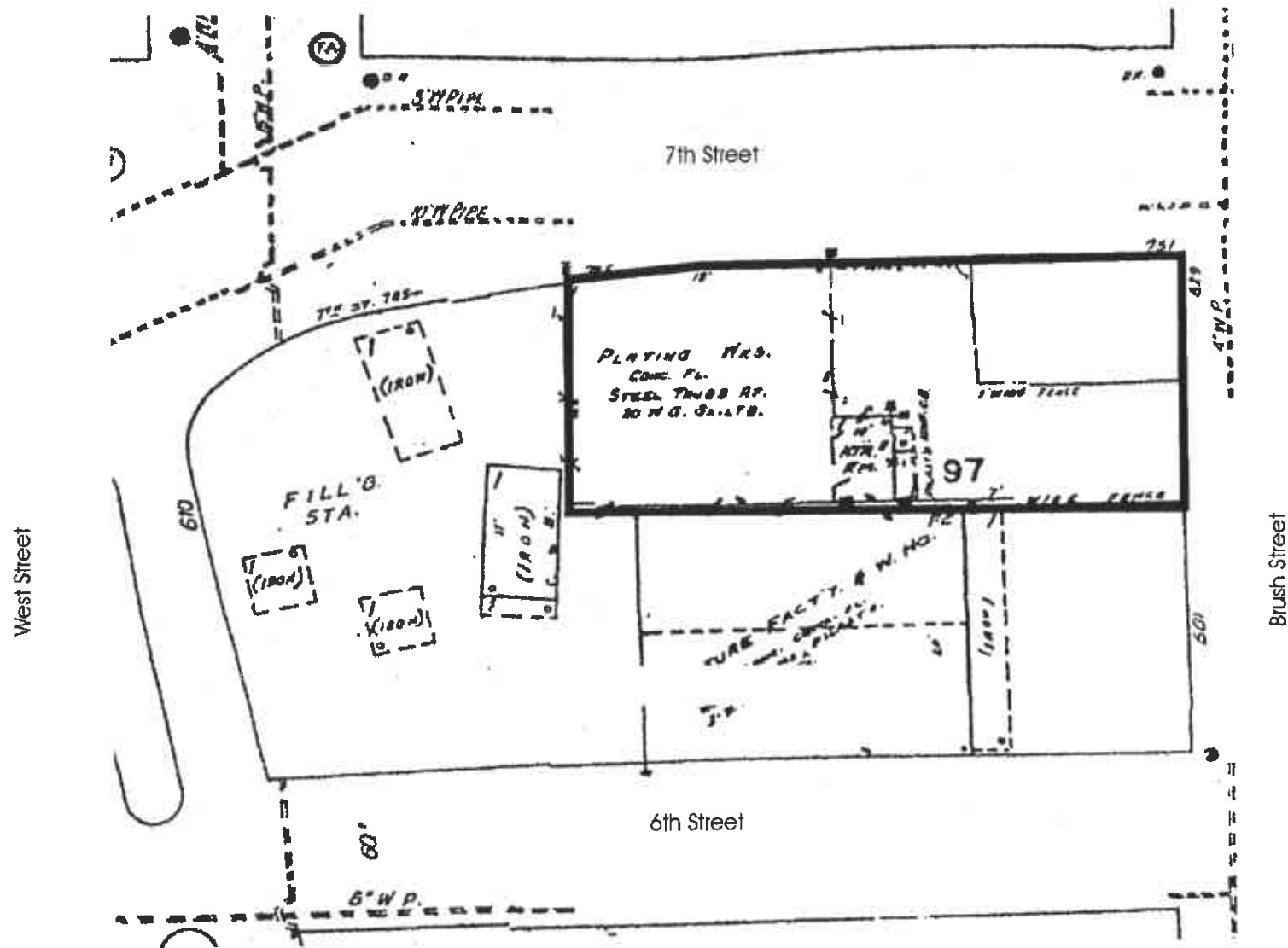
Legend

— Approximate Project Site Boundary

**Francis Plating  
Oakland, California**



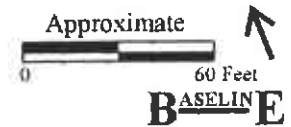




Legend

— Approximate Project Site Boundary

**Francis Plating**  
**Oakland, California**



**APPENDIX B**  
**AERIAL PHOTOS**



**785 7th Street  
Oakland, California**





785 7th Street  
Oakland, California







785 7th Street  
Oakland, California



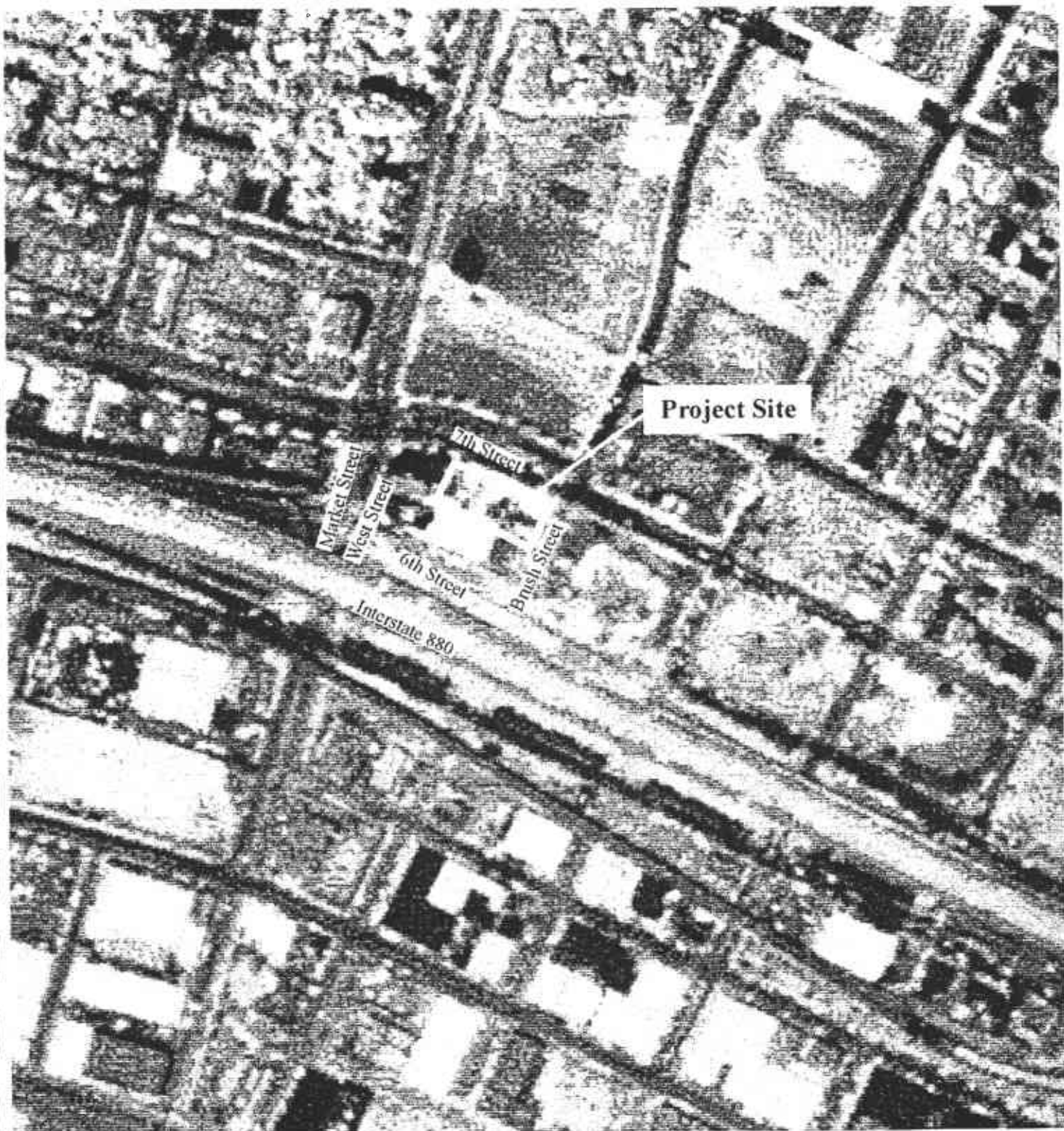


**785 7th Street  
Oakland, California**

D:\Graphics\Y0323-01\AF-1965.cdr 1/5/05

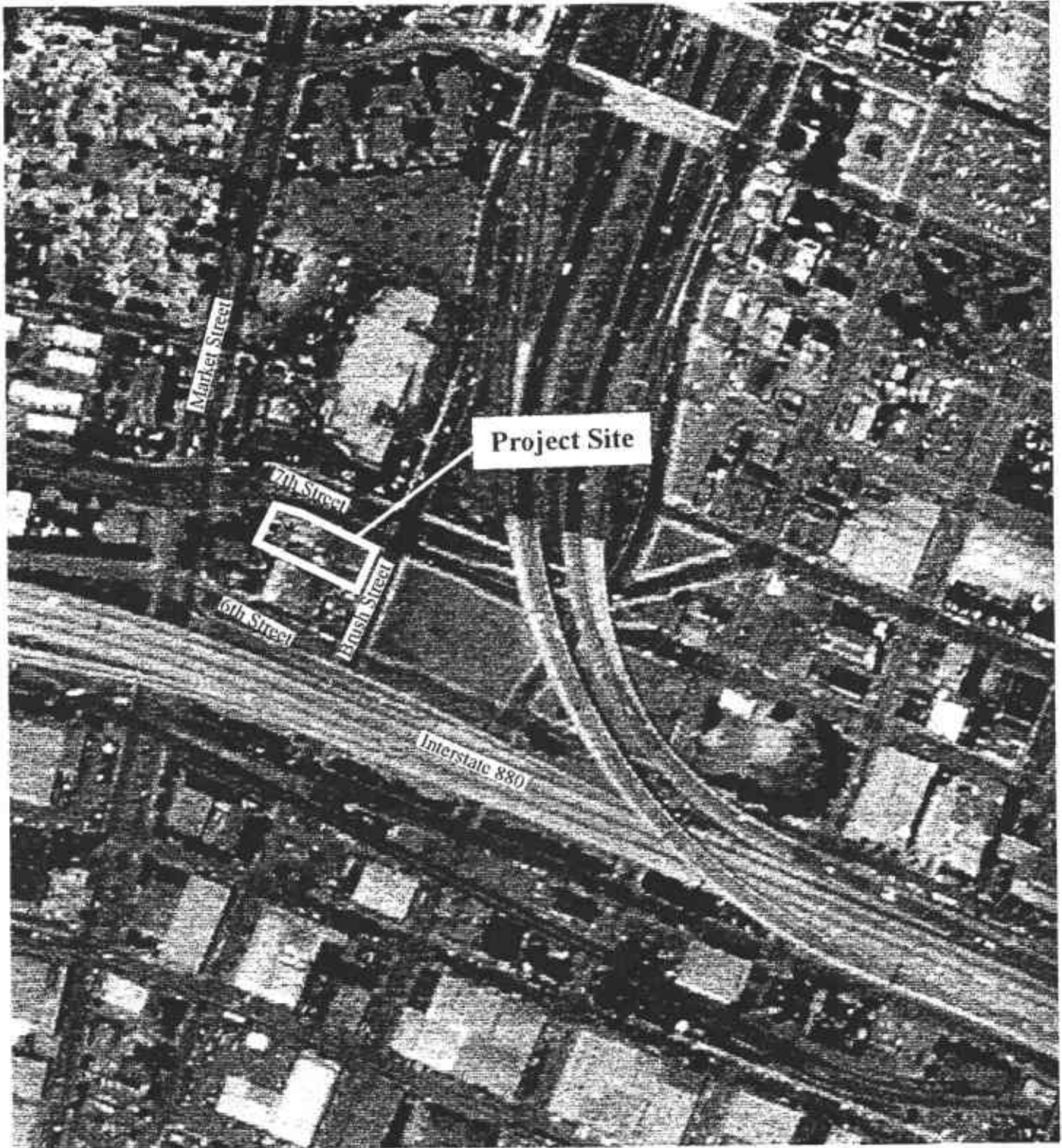






**785 7th Street  
Oakland, California**





**785 7th Street  
Oakland, California**

D:\Graphics\Y0323-01\AF-1993.cdr 1/5/05





**APPENDIX C**

**HAZARDOUS WASTE GENERATOR MANIFEST RECORDS**



Alan C. Lloyd Ph.D.  
Agency Secretary  
Cal/EPA

## Department of Toxic Substances Control

1001 "I" Street  
P.O. Box 806  
Sacramento, California 95812-0806



Arnold Schwarzenegger  
Governor

### EPA ID PROFILE

**ID Number:** CAD009206160      **Name :** FRANCIS PLATING OF OAKLAND INC  
**Status:** INACTIVE      **Inactive Date:** 06/30/1998      **Record Entered:** 07/23/1982      **Last Updated:** 06/25/1999  
**County:** ALAMEDA      **NAICS:** 332813      **SIC:** 3399

	Name	Address	City	State	Zip Code	Phone
<b>Location</b>	FRANCIS PLATING OF OAKLAND INC	785 7TH ST	OAKLAND	CA	946070000	
<b>Mailing</b>		3774 BRADVIEW DR	SACRAMENTO	CA	958270000	
<b>Owner</b>	SEAN MCDOUGALL	3774 BRADVIEW DR	SACRAMENTO	CA	958270000	9163680100
<b>Operator/ Contact</b>	FRANCIS PLATING OF OAKLAND, IN	INACT PER NONDEL 98VQ FINAL NOTICE - CR	OAKLAND	CA	946070000	4154445535

Based ONLY upon ID Number      CAD009206160

Calif. Manifests ?	Non Calif. Manifests ?	Transporter Registration ?
YES	NO	NO

California and Non California Manifest Tonnage Total and Waste Code by Year Matrix by Entity Type (if available) are on the next page

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

Report Generation Date: 12/20/2004

# California Waste Code By Year Matrix

ID Number: CAD009206160

Entity Type: GENERATOR

*Weight ( in Tons)*

Ship Years

Calif. Code	Description	1993	1994	1995	1998	1999
	Blank/Unknown			7.5000		18.4646
121	ALKALINE SOLUTION (PH>=12.5) W/ METALS					25.6455
131	AQ SOL 2 &lt; PH &lt; 12.5&quot; CONTG REACTIVE ANIONS	906.5580				0.1251
132	AQ SOL WITH METALS(SMALLER THAN RESTRICTED LEVELS AND SEE 121)					0.2293
135	UNSPECIFIED AQUEOUS SOLUTION (2 &lt; PH &lt; 12.5)	344.5300				
171	METAL SLUDGE					31.8408
181	OTHER INORGANIC SOLID WASTE	269.6960			33.7120	347.7018
214	UNSPECIFIED SOLVENT MIXTURE					3.0441
221	WASTE OIL AND MIXED OIL		0.6046			
222	OIL/WATER SEPARATION SLUDGE					16.8560
223	UNSPECIFIED OIL-CONTAINING WASTE	0.2293				
331	OFF-SPEC, AGED, OR SURPLUS ORGANICS					0.6000

1993

1994

1995

1998

1999

352	OTHER ORGANIC SOLIDS				2.6900	
611	CONTAMINATED SOILS FROM SITE CLEAN-UP				87.6512	
612	HOUSEHOLD WASTES				0.0400	
711	LIQUIDS WITH CYANIDES >= 1000 MG/L		0.0625		1.6680	
722	LIQUIDS WITH CADMIUM >= 100 MG/L				538.8283	
723	LIQUIDS WITH CHROMIUM (VI) >= 500 MG/L	44.2800			22.1010	
726	LIQUIDS WITH NICKEL >= 134 MG/L				63.8844	
791	LIQUIDS W PH<=2				6.8596	
792	LIQUIDS W PH<=2 W METALS				66.5115	
<b>Grand Total</b>		<b>1565.2933</b>	<b>0.6671</b>	<b>7.5000</b>	<b>33.7120</b>	<b>1234.7392</b>

# RCRA Waste Code By Year Matrix Report

ID Number: CAD009206160

Entity Type: GENERATOR

*Weight ( in Tons)*

RCRA Code	Description	Ship Years				
		1993	1994	1995	1998	1999
	Blank/Unknown	380.3313	0.6046	7.5000		375.5398
D001	Ignitable					5.9992
D002	Corrosives					185.0020
D006	Cadmium	67.4240			33.7120	663.6052
D007	Chromium	1117.5380				
F007	Spent cyanide plating bath solutions		0.0625			3.1930
F009	Spent stripping and cleaning bath soluti					1.4000
<b>Grand Total</b>		<b>1565.2933</b>	<b>0.6671</b>	<b>7.5000</b>	<b>33.7120</b>	<b>1234.7392</b>

**Calif. Manifest Counts and Total Tonnage**

Top line represents Manifest Count and Bottom line represents Total Tonnage

	GENERATOR	TRANS. 1	TRANS. 2	TSDF	ALT. TSDF
1993	73 1,565.2933				
1994	2 0.6671				
1995	1 7.5000				
1998	1 33.7120				
1999	83 1,234.7392				

**Non California Manifest Total Tonnage**

**Waste Code By Year By Entity Matrix Report  
(based on California Manifests only)**

Calif.	<u>Generator</u>	<u>Transporter 1</u>	<u>Transporter 2</u>	<u>TSDF</u>	<u>Alt. TSDF</u>
RCRA	<u>Generator</u>	<u>Transporter 1</u>	<u>Transporter 2</u>	<u>TSDF</u>	<u>Alt. TSDF</u>