

FINAL REPORT

1800 POWELL

**PRELIMINARY
ENVIRONMENTAL SITE ASSESSMENT**

**LATHROP PROPERTY
EMERYVILLE, CALIFORNIA**

Prepared for

Mr. F. P. Lathrop

**c/o Goldsmith and Lathrop
2000 Powell Street, Suite 1660
Emeryville, California 94608**

June 1989

Woodward-Clyde Consultants

500 12th Street, Suite 100, Oakland, CA 94607-4014



PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT
LATHROP PROPERTY
EMERYVILLE, CALIFORNIA

Prepared for

Mr. F.P. Lathrop
c/o Goldsmith and Lathrop
2000 Powell Street, Suite 1660
Emeryville, California 94608

January 24, 1989

Prepared by

Woodward-Clyde Consultants
500 12th Street, Suite 100
Oakland, CA 94607-4014

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION	1-1
1.1 Project Background	1-1
1.2 Objectives and Scope of Services	1-1
1.3 Limitations	1-2
2.0 SITE DESCRIPTION	2-1
2.1 Location	2-1
2.2 Site Reconnaissance	2-1
2.3 Geology	2-3
2.3.1 Regional Geology	2-3
2.3.2 Site Geology	2-3
2.3.3 Fill Material	2-4
2.4 Groundwater	2-5
3.0 SITE USES	3-1
3.1 Current	3-1
3.2 Historical	3-1
3.2.1 Historical Bay Shoreline	3-1
3.2.2 History of Landfill and Fibreboard Corp./Pabco Industries, Inc.	3-2
3.2.3 Recent Site History	3-3
3.2.4 Pabco Manufactured Products and Materials	3-3
3.2.5 Landfill Development: Aerial Photo Interpretation	3-4
4.0 RECORDS REVIEW	4-1
4.1 Records of Site Vicinity Environmental Cases	4-1
4.2 Previous Woodward-Clyde Consultants Projects	4-4
4.2.1 Watergate Tower II	4-4
4.2.2 Watergate Tower I	4-4
4.2.3 Watergate Apartments	4-5
4.2.4 Watergate Soil Investigation	4-5
4.2.5 Market Place Property	4-5
5.0 DISCUSSION AND CONCLUSIONS	5-1
5.1 Discussion	5-1
5.2 Conclusions	5-2

TABLE OF CONTENTS (concluded)

<u>Section</u>	<u>Page</u>
6.0 RECOMMENDATIONS	6-1
7.0 BIBLIOGRAPHY	7-1
APPENDIX A WELLS FARGO REALTY FINANCE ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT	A-1
APPENDIX B PRELIMINARY PHASE II WORK PLAN	B-1
APPENDIX C CHAIN-OF-TITLE	C-1
APPENDIX D ASBESTOS INSPECTION MEMO	D-1

LIST OF TABLES

Table

- 1 LIST OF INDUSTRIAL MATERIALS FOUND IN THE SUBSURFACE
AT PREVIOUS WCC PROJECT SITES IN THE AREA
- 2 PUBLIC RECORDS REVIEW SUMMARY

LIST OF FIGURES

Figure

- 1 PROJECT SITE MAP
- 2 1947 AERIAL PHOTO INTERPRETATION
- 3 1949 AERIAL PHOTO INTERPRETATION
- 4 1953 AERIAL PHOTO INTERPRETATION
- 5 1959 AERIAL PHOTO INTERPRETATION
- 6 1969 AERIAL PHOTO INTERPRETATION
- 7 1971 AERIAL PHOTO INTERPRETATION
- 8 REFERENCE MAP

1.0
INTRODUCTION

1.1 PROJECT BACKGROUND

Woodward-Clyde Consultants (WCC) was retained by Mr. Thomas N. Lathrop on behalf of Mr. F.P. Lathrop to perform a preliminary environmental site assessment (PESA) of the Lathrop property, outlined in Figure 1, in Emeryville, California. This PESA was conducted according to Agreement Number 8810235A, dated January 13, 1989, between Mr. F.P. Lathrop and WCC. We understand, from our meeting on December 14, 1988, that this PESA was requested by Wells Fargo Realty Finance as part of a refinancing package.

1.2 OBJECTIVES AND SCOPE OF SERVICES

At our meeting it was agreed to break the work into two phases. The objective of the Phase I Site History Review PESA was to render our opinion about whether potential sources or indications of hazardous substance contamination are present on the Lathrop property. Because the property was known to have been used in part as an industrial landfill by Fibreboard Corporation (formerly Pabco Industries, Inc. and Paraffine Companies, Inc.) and others, a Phase II PESA Subsurface Investigation was proposed to begin as soon as the site history review was complete. The overall extent of work to identify potential sources or indications of contamination was to be limited by the scope of services presented in the above-referenced Agreement and Attachments.

The scope of services for the Phase I PESA, as outlined in Attachment 1 to the Agreement, included the following tasks:

- Review the Fibreboard Corp./Pabco plant history
- Review history of fill operations
- Check adjacent properties
- Develop Phase II Workplan
- Issue Phase I Report

In conjunction with these tasks we performed several activities, including:

- A public records review
- A review of previous WCC projects near the Lathrop property
- Aerial photo mapping of landfill growth
- A geological review of subsurface conditions

1.3 LIMITATIONS

We have performed our services for this project in accordance with our Agreement, and with current professional standards for contamination assessment investigation; no guarantees are either expressed or implied. Our investigation was limited to the Lathrop property described herein and our opinions are valid for that property only. They do not apply to adjacent or other properties in the vicinity. The records search we conducted was limited to information available from public sources and our own files. The public sources are regularly changing and are frequently incomplete.

There is no investigation which is thorough enough to preclude the presence of materials which presently, or in the future, may be considered hazardous at the site. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants presently considered

low may, in the future, fall under different regulatory standards that require remediation.

Opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for the use of Mr. F. P. Lathrop, and any reliance on this report by third parties shall be at such party's sole risk.

2.0

SITE DESCRIPTION

2.1 LOCATION

The subject property is located in Emeryville, California. It is an 18-acre site, more or less, lying at the east end of the man-made Emeryville peninsula jutting westward into San Francisco Bay from the Emeryville shoreline. The nearest major road intersection is that of Powell Street and U.S. Highway 880. The Lathrop property boundary is described in the Agreement and shown on Figure 1, Project Site Map.

The Search Area shown on Figure 1 is centered on the Lathrop property. The Search Area, a circle with a 2000-foot radius, was used to screen other sites in the vicinity during our file searches.

2.2 SITE RECONNAISSANCE

Site visits by WCC personnel were made on Tuesday, January 10, 1989 and on Thursday, January 12, 1989. The Lathrop Property was seen to be a high-rise office development consisting of:

- Two 12-story and one 16-story office buildings
- A 3-story parking structure
- Paved parking areas and access roads
- Landscaped access road dividers and planter areas
- A gasoline pump island in the parking structure
- Telephone and electrical utility vaults
- Sewer and water underground pipelines

The Lathrop property lies approximately 11 feet above sea level. It is bounded on the east by an open field and a hotel, on the west by the Watergate Condominiums and shops, on the south by Powell Street and on the north by San Francisco Bay and Charlie Brown's restaurant.

At the time of the site reconnaissance, no surface evidence or indications of possible contamination were noted. Two areas were investigated further. First, there are two underground gasoline storage tanks near the parking structure. The building management company reported that these tanks were installed 4 years ago and are of the double-walled fibreglass design, consistent with current underground storage tank regulations. Management reported that their inventory balance records show that product received matches product pumped, an indication that the tanks and piping are leak-free. WCC did not inspect tank testing records, if they exist.

Second, the tower buildings have emergency diesel-powered generators and electrical transformers. The possibility of PCB-containing transformers was questioned. The Building Services Manager said that this concern had been raised previously. He had determined that no PCBs were present, due to the fact that the units had been installed after transformers with PCB cooling oil were no longer in use. In a subsequent conversation with the Pacific Gas and Electric Company (PG&E) account representative for the Lathrop Property, it was learned that PG&E does not believe there are PCBs in these transformers. PG&E provides a transformer-oil testing service, at a cost of \$200 per unit, to analyze the oil for an accurate determination of the amount of PCBs present in the oil.

Appendix A contains a completed copy of the Wells Fargo Realty Finance Environmental Questionnaire. Additional issues about site conditions are addressed therein.

2.3 GEOLOGY

The following section describes regional and site geology and a brief history of the landfill. It has been modified and expanded from previous WCC reports on and near the Lathrop Property (reference E).

2.3.1 Regional Geology

The geology is typical of East Bay shoreline deposits. There are some 600 feet of geologically young sediments overlying old bedrock which is Knoxville shale some 150 million years old. The sediments occur in the San Francisco Bay trough which was formed about 2 million years ago when the bedrock between Marin and the Berkeley Hills was warped and faulted downward. The bedrock is deeper on the Emeryville side because the trough surface tilts down toward the east. Bay islands such as Brooks, Yerba Buena, and Red Rock, and shoreline features such as Point Isabel and Albany Hill, are minor fault-bounded bedrock remnants left high as the main trough dropped.

2.3.2 Site Geology

The 600 feet of unconsolidated sediments beneath the Lathrop property are composed of four formations: the Alameda, the San Antonio, the Temescal, and the recent Bay Mud. The Alameda formation overlies bedrock and probably accounts for the lower 500 feet of the soil profile; it is from 200,000 to 2 million years old and consists of very stiff preconsolidated clay derived from both continental and marine sources.

The San Antonio formation overlies the Alameda and occurs from 30 to 100 feet below grade; it is probably from 100,000 to 1 million years old. The San Antonio formation consists of interbedded stiff clays and medium dense to dense sands and gravels eroded from the Berkeley Hills; it also contains stiff old Bay Muds which are preconsolidated by dessication.

The Temescal formation thinly caps the San Antonio on the east half of the Lathrop property and is found about 25 to 30 feet below grade. The Temescal is from 2000 to 100,000 years old and on this site is characterized by loose to medium dense clayey gravels. The Temescal formation is part of an extensive alluvial fan which supports most of Emeryville and Berkeley and extends east to its source in the Berkeley Hills. Only the thin west edge of the Temescal fan occurs on the subject site.

The surface of both the Temescal and San Antonio formations was subsequently eroded by recent streams cutting shallow valleys into the surface just prior to Bay Mud deposition. These streams braided back and forth over the site leaving several broad but shallow channels.

The recent Bay Mud covered all of the Lathrop property in the last 2000 years and is from 5 to as much as 40 feet thick, the variation being due to the infilling of the stream beds. The Bay Mud occurs as a soft compressible clay and forms the shoreline mud flats. It is slightly younger than the nearby Emeryville Shell mounds left by the Digger Indians about 2500 years ago. The Bay Mud was deposited in relatively quiet water when the Bay rose during the last episode of glacial melting, inundating the shorelines.

2.3.3 Fill Material

In the past 30 years, man has filled over the mud on the east half of the Emeryville peninsula with industrial waste from nearby roofing, tarpaper, linoleum, and asbestos manufacturing plants. The west half of the peninsula has been filled with rubble and dense debris from building demolition and steel mill slag. Over the years, the industrial waste and dense debris have been combined in various percentages with imported clay and sand fill.

2.4 GROUNDWATER

The Emeryville peninsula was formed by filling out over Bay Mud with mixed soil and industrial rubble fill. Because of the widespread void spaces, the range of grain and fragment sizes, and various materials present, the fill is believed to have a very high hydraulic conductivity. Therefore, the fill lying beneath high tide level may have been subject to seawater leaching with the result that mobile contaminants, such as solvents from paint manufacture and oils from roofing material, have been diluted or removed.

Native groundwater is a mixture of seawater and leachate formed by rain and irrigation water percolating down through the fill. Groundwater levels noted in previously drilled boreholes "are consistent with the nearby bay and appear to fluctuate sluggishly with the tides. Every hole drilled to date on the site has encountered water within 4 to 14 feet below site grade" (Woodward-Clyde Consultants, reference E).

Over 99 percent of the Lathrop property is capped with compacted fill, pavement, or structures. This effectively seals the subsurface from the surface environment. Infiltration area is limited to the small landscaped areas, which are underlain by compacted fill.

3.0
SITE USES

3.1 CURRENT

At the time of the site reconnaissance in January 1989, the entire property was in use as office buildings and supporting facilities, as described previously under Section 2.2, Site Reconnaissance.

3.2 HISTORICAL

Among the main objectives of this Phase I PESA are reviewing the industrial history of the landfill and the nearby Fibreboard Corp./Pabco Industries, Inc., factory. This factory is reported to have been a major contributor to the landfill. Learning about the raw materials they used and their finished products is thought to be a good indicator of the types of materials that may have been disposed of at the Lathrop property when it was in use as a landfill. The operations of that factory were described in conjunction with another WCC project in Emeryville (reference B). The section that follows is modified from that report. Although the manufacturing operations described took place east of the Lathrop property they are relevant because waste materials from those operations were reportedly disposed of in the landfill underlying the Lathrop property.

3.2.1 Historical Bay Shoreline

The Lathrop property is located in an area of Emeryville which was formerly submerged beneath San Francisco Bay. The historical (1856) bay shoreline was located near the Southern Pacific (SPRR) railroad tracks in Figure 8.

3.2.2 History of Landfill and Fibreboard Corp./Pabco Industries, Inc.

The history of landfilling at the Emeryville peninsula is closely tied to the development and activities of the Paraffine Companies, Inc. (1884-1920), Pabco (1920-1957), and Fireboard Corporation (1957-1968). The area of the Fibreboard Corp./Pabco plant is shown on Figure 8. The historical record indicates that manufacturing did not occur on the Lathrop property.

The Emeryville area was open, undeveloped land in the mid-1800s. By about 1900 to 1910, the entire Emeryville area east of the Southern Pacific Railroad (SPRR) had been essentially fully developed with streets and structures. Much of this development occurred as residents and businesses relocated from San Francisco to the East Bay following the San Francisco earthquake of 1906. Historical maps and charts show few, if any, observable changes in the location of the bay shoreline in the vicinity of the Lathrop property during this period, and it appears that landfilling during this period was confined to the on-shore marshland area east of the historical bay shoreline (Figure 8).

In about 1884 the Paraffine Companies, Inc. was formed by several chemists and opened for business in a small office located about 2000 feet northeast of the site. Little information is available concerning the early operations of the Paraffine Companies, Inc. during the period from 1884 to about 1900. However, it appears that these early operations may have been directed primarily towards research and development of bituminous and petroleum based products, and possibly some small-scale asphalt and kerosene refining, with only limited product manufacturing, if any.

However, beginning in about 1902, the Paraffine Companies, Inc. began preparations for manufacture of roofing felt, roofing paper, roofing shingles, and refined asphalt for use in linoleum and asphalt-based paints. By 1925 the bay and tidal marshes had been filled in to about 500 feet west of the SPRR tracks (Figure 8). Construction of the first structures in the "off-shore" area commenced in 1917; much or most of the

fill in the area between the original bay shoreline and the 1925 shoreline had probably been placed by about 1917.

In 1920, the Paraffine Companies, Inc. became Pabco. Products associated with Pabco include the products manufactured previously by the Paraffine Companies, Inc., as well as paint and possibly some creosote.

3.2.3 Recent History

In 1957, Pabco was purchased by the Fibreboard Corporation. Products manufactured by Fibreboard were apparently the same as those manufactured by Pabco: roofing materials, paint, and some industrial asphalts. Beginning about 1964, Fibreboard began to divest its industries. By 1965 the asphalt and kerosene refining equipment had been dismantled. Between 1965 and 1974 the remaining Fibreboard Corporation buildings were demolished.

The landfill operations at Emeryville peninsula were performed between World War II and the mid-1960s. This was an era when unregulated landfill operations were accepted practice and tidelands reclamation was pursued in many areas around the bay: The Emeryville peninsula development had been in the planning stages and was "grandfathered" into the original BCDC (Bay Conservation and Development Commission) general plan.

During engineering of high-rise office towers at the Lathrop property, consideration was given to environmental and engineering consequences of fill material in the subsurface and some removal of asbestos and fill was performed. A compacted soil cap was placed over the Lathrop property to seal subsurface from surface environments. By the time the Lathrop property was purchased for development, landfill operations had ceased except for engineered fill related to construction.

3.2.4 Pabco Manufactured Products and Materials

For purposes of identifying the materials that may have been disposed of in the Emeryville peninsula landfill, there follows a brief description

of the manufacture of roofing materials and paint. None of these were made by factories on the Lathrop property.

3.2.4.1 Roofing Products. The basic raw materials used in the manufacture of roofing products included waste paper, wood flour, and some waste rags and wood chips, used in making roofing felt; liquid asphalt, used to saturate the felt in making roofing paper; and crushed slate stone, used as surfacing in roofing shingles.

3.2.4.2 Paint. Paint manufacture by Fibreboard Corp./Pabco apparently commenced in 1929. Products included typical oil-based paints and enamels. All paint ingredients were obtained from off-site sources, and the paint operation consisted entirely of the mixing and packaging done in the paint manufacturing building, located east of U.S. Highway 880. Later, in the 1950s, paint mixing was reported to have been done in a plant west of U.S. Highway 880, in the grass field located just east of the Lathrop property.

Paint mediums included linseed oil and some synthetic resin varnishes for enamels. The primary solvent was apparently mineral spirits, although lesser amounts of other solvents including ethyl alcohol, xylene, and toluene were also used.

A variety of paint pigments were used. A former Fibreboard Operations Manager for paint manufacturing recalled during an interview (for another WCC project in 1982) that commonly used pigments included titanium oxide, red and white lead, zinc oxide, zinc chromate, magnesium silicate, barium sulfate, and others.

3.2.5 Landfill Development: Aerial Photo Interpretation

In order to identify the locations of landfill cells, as opposed to the dense perimeter dikes used to impound the fill, a growth of the landfill was mapped using a historical series of aerial photographs. Stereographic

pairs of aerial photographs were obtained for the years 1947, 1949, 1953, 1959, 1969, and 1971. The results of this study are presented in Figures 2 through 7. These results will be used to plan drilling locations for soil and water sampling during a future Phase II subsurface investigation. A brief discussion of each photo follows.

1947. A small landfill may be seen to extend westward into San Francisco Bay from the Emeryville shoreline. Two landfill cells have been impounded by dikes. The cells lie across what is now the eastern property line of the Lathrop property.

1949. A third landfill cell has been added to the south. The west end of the cell crosses the east Lathrop property line.

1953. A large new cell has been built to the west of the two 1947 cells. It covers two thirds of the Lathrop property. Fill operations at the other cells appear to have ceased. Minor subsidence of the older cells is indicated by the presence of ponded water.

1959. Another large cell has been impounded to the west. The landfill now covers nearly all of the area of the Lathrop property.

1969. Continued expansion to the west has occurred since 1959. At least three new cells have been impounded on the Lathrop property, ponded water in inactive landfill cells suggests the landfill materials are subsiding. The Fibreboard plant is visible west of the Lathrop property.

1971. The landfill operations have ceased and construction activity is underway. Water-filled ponds on the Lathrop property suggest continued subsidence of old landfill cells. The Fibreboard Corp. plant west of U.S. Highway 880 is gone.

4.0
RECORDS REVIEW

4.1 RECORDS OF SITE VICINITY ENVIRONMENTAL CASES

Many public agencies keep public records of toxic waste sites, fuel tank leaks, landfill operations, and the like. This section summarizes WCC's findings in the public record and also reviews relevant information from previous WCC projects in the Search Area. Case sites are identified in Figure 8 and annotated in Table 2. Comments on previous WCC work are given below and summarized in Table 1, with project locations shown in Figure 8. Also included in this section are WCC's comments on toxic cases outside the Search Area, but in WCC's opinion still relevant to this PESA. It should be noted that there are yet other toxic contamination cases known in Emeryville, but still farther from the Lathrop property than those mentioned below.

The following agencies have been contacted as potential sources of relevant environmental history:

- U.S. Environmental Protection Agency (U.S. EPA)
- State of California Department of Health Services (DHS)
- Regional Water Quality Control Board (RWQCB)
- Alameda County Hazardous Material Management Programs
- Alameda County Flood Control and Water Conservation District
- City of Emeryville Fire Department
- City of Emeryville Planning Department
- University of California, Berkeley, Doe Library

The federal listings consulted were the Environmental Protection Agency's National Priority List (NPL), October 11, 1988 and the Federal Register, June 24, 1988. There are no NPL sites in the vicinity of the subject site. We have requested current copies of the RCRA and CERCLIS listings from the U.S. EPA. However, they were not available prior to preparation of this report. They will be reviewed by our staff upon receipt and discussed in the final Phase II report.

State listings consulted included:

- Region 2 Permitted Dischargers List (RWQCB, October 1988)
- Fuel Leaks List (RWQCB, October 1988)
- North Bay Toxic Cases List (RWQCB, September 1988)
- Hazardous Waste and Substances Sites List (DHS, August 1988)

There are two reported fuel leaks in the Search Area and four others nearby, but outside the Search Area (Figure 8). The two sites within the Search Area (Table 2, #6 and #8) are located north and south, respectively, of the Emeryville peninsula. Garrett Freight Line (Table 2, #6) at 64th and Lacoste is known to be the site of several drum and tank leaks. The nature and extent of the contamination resulting from these leaks is currently under investigation.

The fuel leaks and toxic cases list include PIE Nationwide at 5500 Eastshore Freeway (Table 2, #8). The details of the contamination at this site are not available at this time.

A fuel leak resulting in localized soil contamination was reported at the Nielsen property at 5800 Shellmound Street in May, 1988 (Table 2, #7). Fuel contamination was suspected in a PG&E utility trench (Table 2, #1) at the corner of Shellmound and Powell Streets. Laboratory results had not been returned to the RWQCB prior to the preparation of this report and we were therefore unable to evaluate the magnitude or extent of the

spill. These sites are approximately 2100 feet from the Lathrop property and have a low potential to impact the site.

The Emeryville Marketplace commercial development (Table 2, #3) located at 5800 Shellmound Street has been under investigation for subsurface contamination since 1982. The Marketplace development is about 2200 feet from the Lathrop property. RWQCB files indicate that a water treatment system has been designed and implemented for this site. An August 1988 analysis of effluent water samples from the treatment system showed non-detectable levels of contamination except for one sample, which showed tetrachloroethene at a level of 61 parts per billion. A duplicate sample, collected at the same time showed non-detectable levels.

Pfizer Pigments Inc. at 4650 Shellmound Street (Table 2, #5) is the former site of an underground waste oil tank. Following tank removal in December 1987, soil contamination was detected in a sample collected from the open tank pit excavation. A subsequent investigation to detect soil and groundwater contamination found dissolved solvents in the immediate vicinity of the former tank. Groundwater sampling detected acetone, 2-butanone, hexone (MEBK) along with trace concentrations of naphthalene and methyl naphthalene in a monitoring well within the former tank pit. Other monitoring wells on the site including wells downgradient from the tank pit showed "Not Detected" results for all analyses. Soils in the immediate vicinity of the tank pit had "Not Detected" levels of priority pollutants, base/neutrals, extractable organics, and total petroleum hydrocarbons. The solvents detected in groundwater were below detection limits in the soils. The investigation concluded that the adsorbed oil and grease is not soluble or volatile and does not pose a threat to human health or the environment. It was recommended in August 1988 that the oil and grease be left in place without remediation and that semi-annual groundwater monitoring be instituted to detect any downgradient migration.

California Proposition 65 listings and other relevant Alameda County records from the Alameda County Hazardous Material Management Program were not available prior to preparation of this report. We have requested a search of these records by Alameda County officials, and will include a discussion of these results in the Phase II report.

There are currently ten locations in the area which house one or more underground tanks. Of these ten locations, only Pfizer Pigments Inc. is under investigation for fuel leakage. These locations and some others where tanks have been removed, but no contamination reported, are also listed in Table 2.

There are no domestic, agricultural, or industrial wells in the site vicinity.

4.2. PREVIOUS WOODWARD-CLYDE CONSULTANTS PROJECTS

Previous Woodward-Clyde Consultants projects in the subject area were reviewed to determine if any potentially hazardous materials were encountered. The following is a summary of the projects relative to this work. Complete references are provided in the Bibliography. A summary of the industrial materials encountered during subsurface investigations at these sites is presented in Table 1.

4.2.1 Watergate Tower II

Borings on site indicate an extensive fill of soil mixed with large quantities of roofing material, linoleum, wood, metal, slag, asphalt, trash, paper, and asbestos to a maximum depth ranging from 19 to 25 feet. No environmental analysis was performed.

4.2.2 Watergate Tower I

Borings indicate an extensive fill ranging to a maximum depth of 19 to 24 feet with materials and conditions similar to the Watergate Tower II report. No environmental analysis was performed.

4.2.3 Watergate Apartments (now condominiums)

Borings indicate a fill with a maximum depth ranging from 19 to 25 feet containing soil mixed with tar paper, wood, and asbestos. No environmental analysis was performed.

4.2.4 Watergate Soil Investigation

Depths of fill similar in content to those described in latter reports for the same area. No environmental analysis performed.

4.2.5 Market Place Property

The site itself does not influence the project area significantly by location, but the previous manufacturing activities and its site history are relevant to the project's fill environmental characteristics. The site was previously used for the manufacture of roofing products. Waste paper, wood flour, waste rags, and wood chips were used with liquid asphalt to make roofing paper. Some paint manufacturing was also done.

5.0

DISCUSSION AND CONCLUSIONS

5.1 DISCUSSION

The purpose of this preliminary environmental site assessment was to identify indications of hazardous substance contamination derived from historical or current uses of the Lathrop property and adjacent properties. Because the Emeryville peninsula originated as an industrial landfill, a review was made of the history of the landfill and the major industry contributing to it, the Fibreboard/Pabco/Paraffine Companies, Inc. While we did not observe indications of hazardous substance contamination during our site inspection, there is reason to believe such substances may have been dumped there in the past, prior to development. Western Emeryville is largely built on fill material. As indicated by the westward growth of the historical bay shoreline (Figure 8), a great volume of debris, soil, and waste of heterogenous composition was placed there between the late 1800s and 1948. Westward growth of the Emeryville peninsula began in the 1940s and continued through the 1960s. As a result of the filling process the subsurface in western Emeryville including the Lathrop property is known to contain a variety of man-made and processed materials.

The possible composition of this material has been documented elsewhere in this report. In fact, it is possible that materials considered hazardous by today's standards may be present, although at the Lathrop property the concentrations of any such substances are not known to exceed standards, and in our investigation we did not observe the presence of hazardous materials. From a hydrogeological viewpoint, the land area in

the Environmental Assessment Area (Figure 1) is effectively sealed from the surface environment by compacted fill material, pavement, and structures. Beneath filled land lies bay mud, a low permeability silty clay mixture that acts as an aquitard. Between this surface cap and aquitard is fill material varying in thickness from 1 foot to 25 feet. The fill is believed to have relatively high hydraulic conductivity. The resulting stratum is a thin ($\pm 20'$), narrow ($\pm 2000'$) linear wedge parallel to the shoreline, bounded by aquitards above and below and permeable to salt water from the bay on the west. The Emeryville peninsula is a finger-like extension of this stratum to the west.

5.2 CONCLUSIONS

Hydrogeological considerations discussed above suggest that landfill materials present a low level of threat to groundwater or surface waters. Because no data on the chemical composition of the landfill are available, the volume and concentration of possible contaminants open to seawater flux is not known. Pavement above and an aquitard below are probably effective barriers to vertical movement of groundwater. The landfill is open on the flanks to seawater and may be subject to relatively high flux due to high hydraulic conductivity. As a result, any mobile contaminations formerly present may have been leached from the fill. Less mobile contaminants, such as creosote and metal oxides, would not be leached. It would be necessary to drill, sample and test the underlying soil and groundwater to detect toxic materials beneath the Lathrop property.

Based on our site inspection and records reviews, we conclude that the commercial development area does not show indications of hazardous substances above ground, but that in the past such materials may have been placed in the subsurface fill material.

6.0
RECOMMENDATIONS

To evaluate the conditions of soil and groundwater beneath the Lathrop property, we recommend implementation of a Phase II Environmental Site Assessment. Phase II would involve drilling boreholes into each landfill cell beneath the site, sampling soil and geologically logging the soil/fill material. Each of the five or six wells drilled would be completed as a groundwater monitoring well. These would be developed using a portable pump and water samples taken. Both soil and water samples should be analyzed for the chemical components of known and suspected fill materials. A preliminary work plan for the Phase II Subsurface Investigation is presented in Appendix B.

The results should be evaluated relative to applicable contamination threshold standards for soil and water, specified by the State of California Department of Health Services and the United States Environmental Protection Agency, and other agencies. The results should be presented in a report that integrates the findings of the Phase I and Phase II investigations.

7.0
BIBLIOGRAPHY

-
- A. Woodward-Clyde Consultants. 1978. "Geotechnical Engineering Study Watergate Tower II, Tower III and adjacent three story parking structure." Woodward-Clyde Consultants Project 13906A. January.
 - B. Woodward-Clyde Consultants. 1982. "Assessment of Subsurface Contaminants Marketplace Property, Emeryville, CA." Woodward-Clyde Consultants Project 15093A. May.
 - C. Woodward-Clyde Consultants. 1978. "Geotechnical Engineering Study, Watergate Apartments." Woodward-Clyde Consultants Project 14275A. December.
 - D. Woodward-Clyde Consultants. 1971. "Geotechnical Engineering Study Watergate Hi-Rise Tower Phase I." Woodward-Clyde Consultants Project S-11723D. May.
 - E. Woodward-Clyde Consultants. 1969. "Watergate Soil Investigation." Woodward-Clyde Consultants Project S-11723C. June.
 - F. Woodward-Clyde Consultants. 1971. "Soil Investigation Charlie Brown Restaurant." Woodward-Clyde Consultants Project S-11723E. June.
 - G. Woodward-Clyde Consultants. 1969. "Soil Investigation for Watergate Low-Rise Residential Complex." Woodward-Clyde Consultants Project S-11723B. August.

1

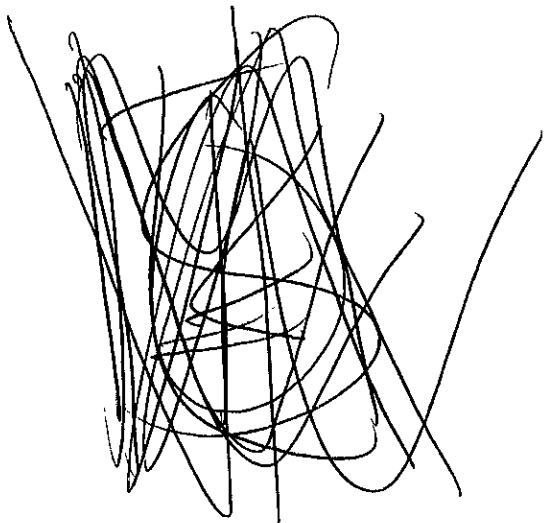


Table 1. LIST OF INDUSTRIAL MATERIALS FOUND IN THE SUBSURFACE AT PREVIOUS WCC PROJECT SITES IN THE AREA

<u>PROJECT¹</u>				
Watergate Properties, Towers I, II, and III	Watergate Apts.	Charlie Brown Restaurant	Watergate Low-Rise Residential	Market Place Property
<u>FILL MATERIAL FOUND</u>				
asbestos metal asphalt rubber oil slag paper wood roofing paper tar paper trash sawdust cinders linoleum cellophane tape rags tin cans asphalt shingles	asbestos wood tar paper	asbestos wood tar paper	asbestos wood roofing material	wood soil w/petroleum odor fiberboard w/ammonia odor tar tar paper chlordane up to 0.99 ppm ² PCBs ² copper, lead, zinc ³ cadmium, chromium ³ tetrahydrofuran ² methyl ethyl ketone ²

¹Project site locations are shown on Figure 8.

²Some samples had concentrations in excess of TTLCs.

³Concentrations below TTLCs.

Table 2. PUBLIC RECORDS REVIEW SUMMARY

SITE	AGENCY/REFERENCE						REMARKS
	RWQCB		Toxic Cases	DHS Hazardous Waste & Substances Sites	CITY OF EMERYVILLE Fire Department Records		
	Permitted Dischargers	Fuel Leaks			Existing Tanks	Removed Tanks	
1. City of Emeryville Shellmound & Powell		X		X			Suspected fuel leak - discovered in utility trench. No chemical data available.
2. City of Emeryville 2449 Powell	X						Bypass from sewer.
3. Emeryville Market Plaza 64th & Lacoste		X					Temporary water treatment facility in place.
*4. Pfizer Pigments Inc. 4650 Shellmound St.	X	X		X	Multiple tanks		Waste oil tank removed from site 12/87. Dissolved solvents detected in vicinity of tank pit. Downgradient wells and soils showed "Not Detected" results for all analyses. Recommended semi-annual monitoring for groundwater; no remedial action for soil.
5. Pfizer Co. 4650 Shellmound St.	X						
*6. Garrett Freight Line 64th & Lacoste		X	X				Drums on site; nature and extent of contamination not yet determined.
7. Nielson Property 5800 Shellmound St.		X					Piping leak discovered and stopped 4/88. Soil contamination only.
*8. PIE Nationwide 5500 Eastshore Freeway		X	X	X		8 tanks removed	RWQCB file unavailable at time of report.
9. Rainin Instrument Co. 1715 64th St.					1 gasoline		

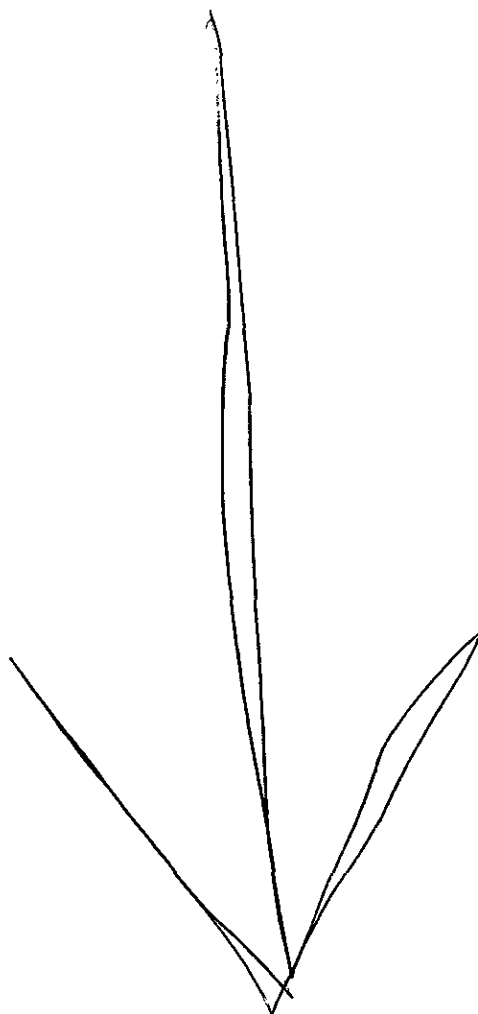
Table 2. PUBLIC RECORDS REVIEW SUMMARY (continued)

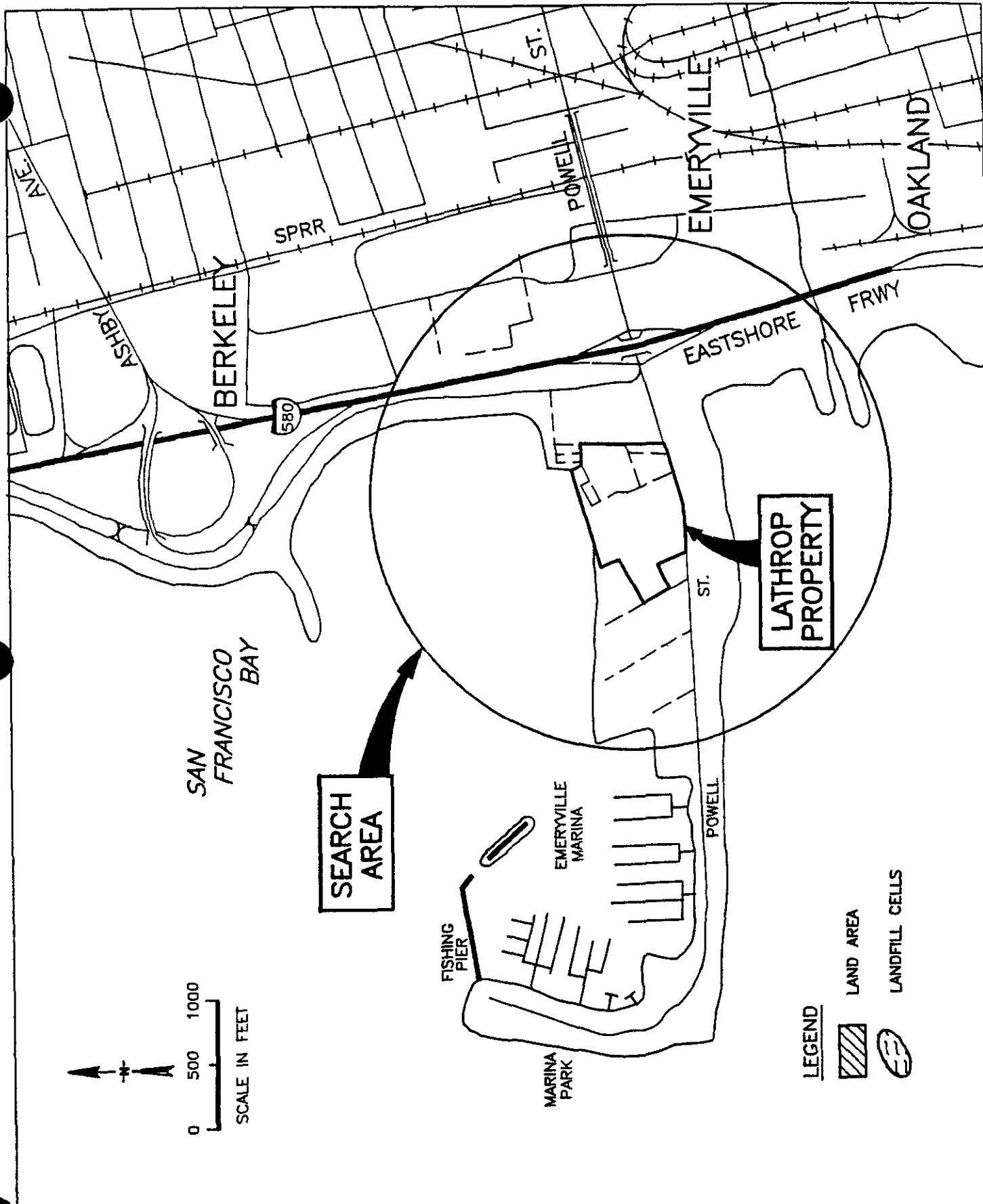
SITE	AGENCY/REFERENCE					REMARKS	
	RWQCB		DHS		CITY OF EMERYVILLE		
	Permitted Dischargers	Fuel Leaks	Toxic Cases	Hazardous Waste & Substances Sites	Fire Department Records Existing Tanks		Removed Tanks
10. Porter Paint 5900 Christie					10 tanks, various products	All removed 1989	
11. DOHS 5817 Shellmound					1 gasoline	<i>? Lathrop Prop</i>	
12. Bay Panelling & Millwork 5764 Shellmound					1 gasoline		
13. A&J Trucking 5600 Shellmound					1 gasoline	2 removed 1989	
14. Mobil Station 1700 Powell					3 tanks diesel/ 1 gasoline	1 u.o.	
15. Shell Station 1800 Powell					4 tanks diesel/ gasoline		
16. Lathrop Parking Garage 2000 Powell					1 gasoline (2 gasoline)		
*17. Marina 3110 Powell					3 tanks		
*18. Former Nielson Freight 1605 64th					1 gasoline, 1 diesel	Localized soil contamination.	
19. 1719 64th					2 tanks	Removed in 1970.	
*20. Lerer Bros. 6340 Christie					1 gasoline		

Table 2. PUBLIC RECORDS REVIEW SUMMARY (concluded)

SITE	AGENCY/REFERENCE						REMARKS
	RWQCB		DHS		CITY OF EMERYVILLE		
	Permitted Dischargers	Fuel Leaks	Toxic Cases	Hazardous Waste & Substances Sites	Fire Department Records Existing Tanks	Fire Department Records Removed Tanks	
* 6202 Christie						1 diesel, 1 waste oil	
21. West Side Weatherford BMW 5901 Christie						1 gasoline 1 w.o.	Removed 1989
* 22. Former Trucking co. 1601 Powell						3 tanks	Removed 1984.
* 23. 5768 Shellmound						1 gasoline	
24. Former Judson scrapyard 4515 Shellmound							1 tank south of creek. <i>Chiron Site</i>
25. Judson 4200 Eastshore						3 or 4 tanks removed	South of creek. <i>Banbury Coast</i>
26. Bay Port Development 64th & Lacoste							

2





**LATHROP
PROPERTY**

**SEARCH
AREA**

LEGEND

LAND AREA

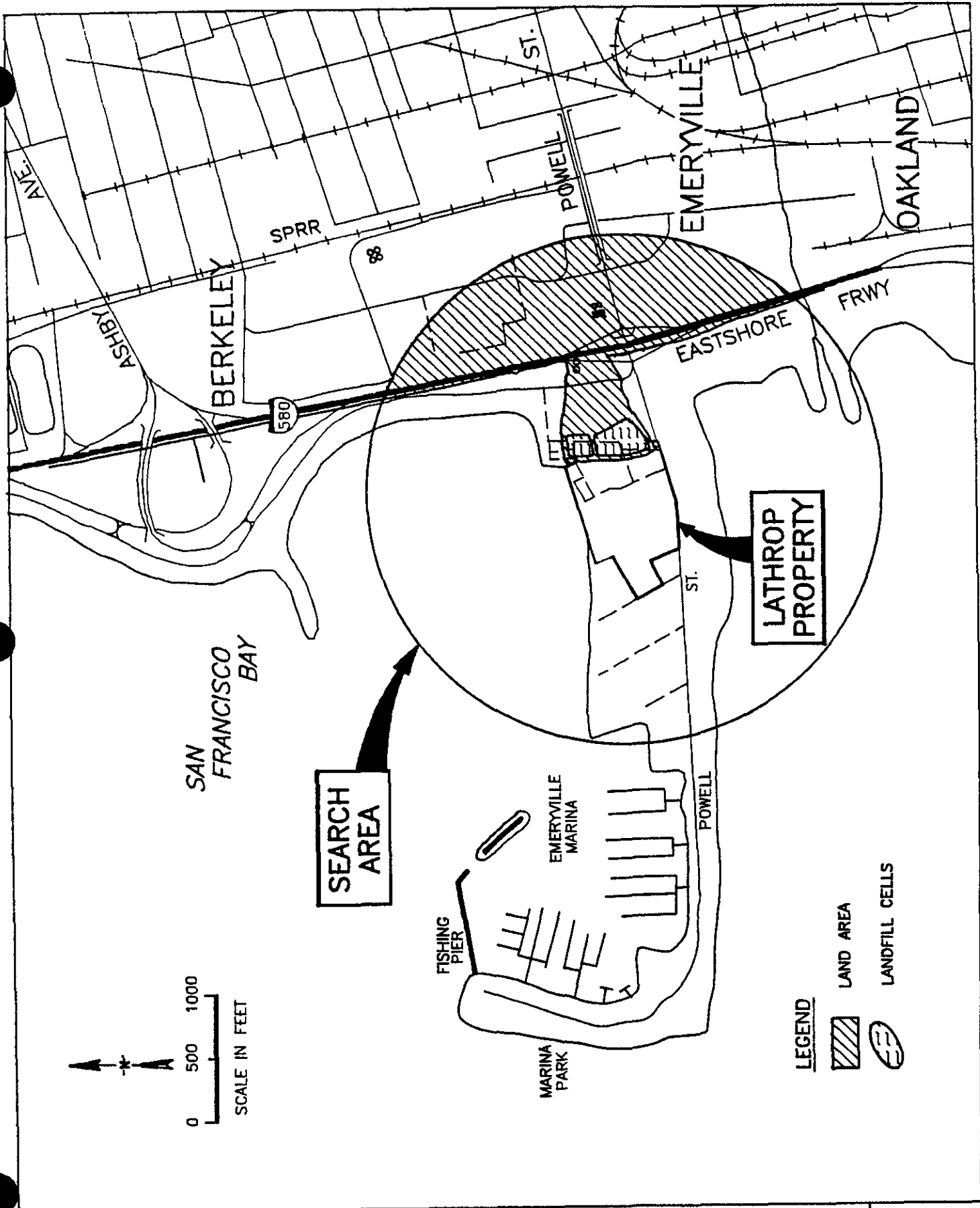
LANDFILL CELLS

Project No. 8810235A LATHROP PROPERTY ENVIRONMENTAL ASSESSMENT

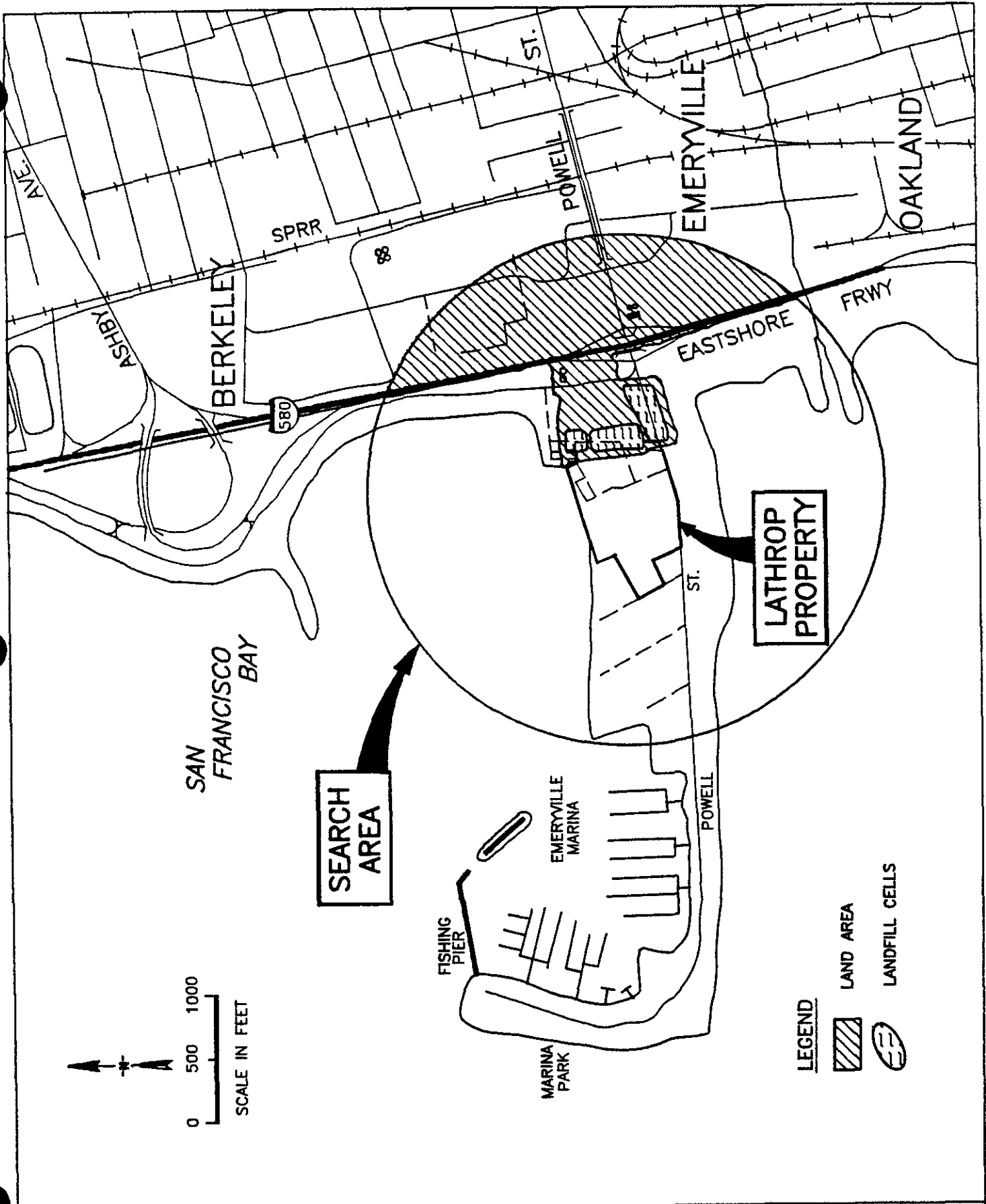
Woodward-Clyde Consultants

PROJECT SITE MAP

Figure 1



Project No. 8810235A	LATHROP PROPERTY ENVIRONMENTAL ASSESSMENT	1947 AERIAL PHOTO INTERPRETATION	Figure 2
Woodward-Clyde Consultants			



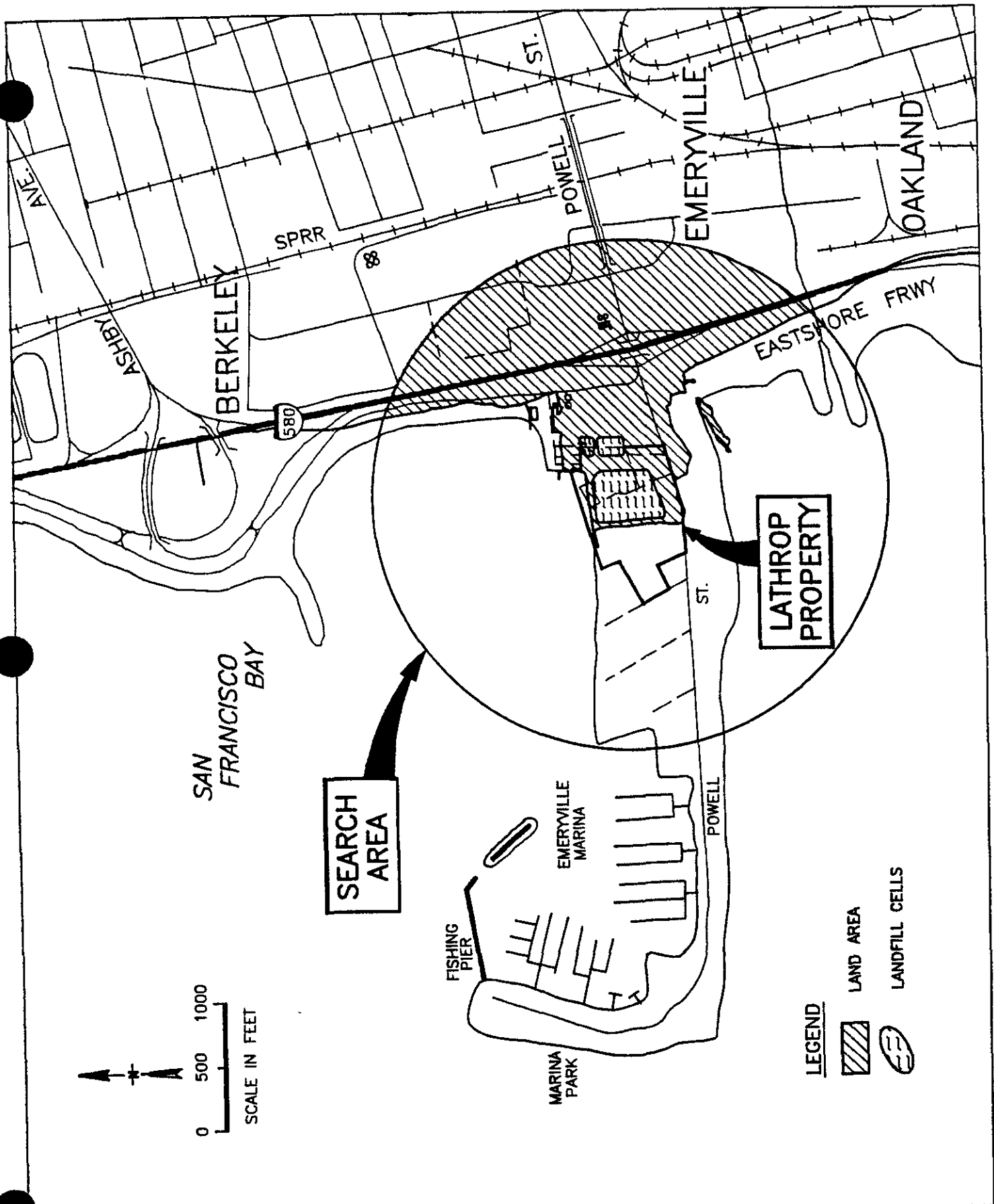
Project No.
8810235A

LATHROP PROPERTY
ENVIRONMENTAL ASSESSMENT

1949 AERIAL PHOTO
INTERPRETATION

Figure
3

Woodward-Clyde Consultants



SEARCH AREA

LATHROP PROPERTY

LEGEND

LAND AREA

LANDFILL CELLS

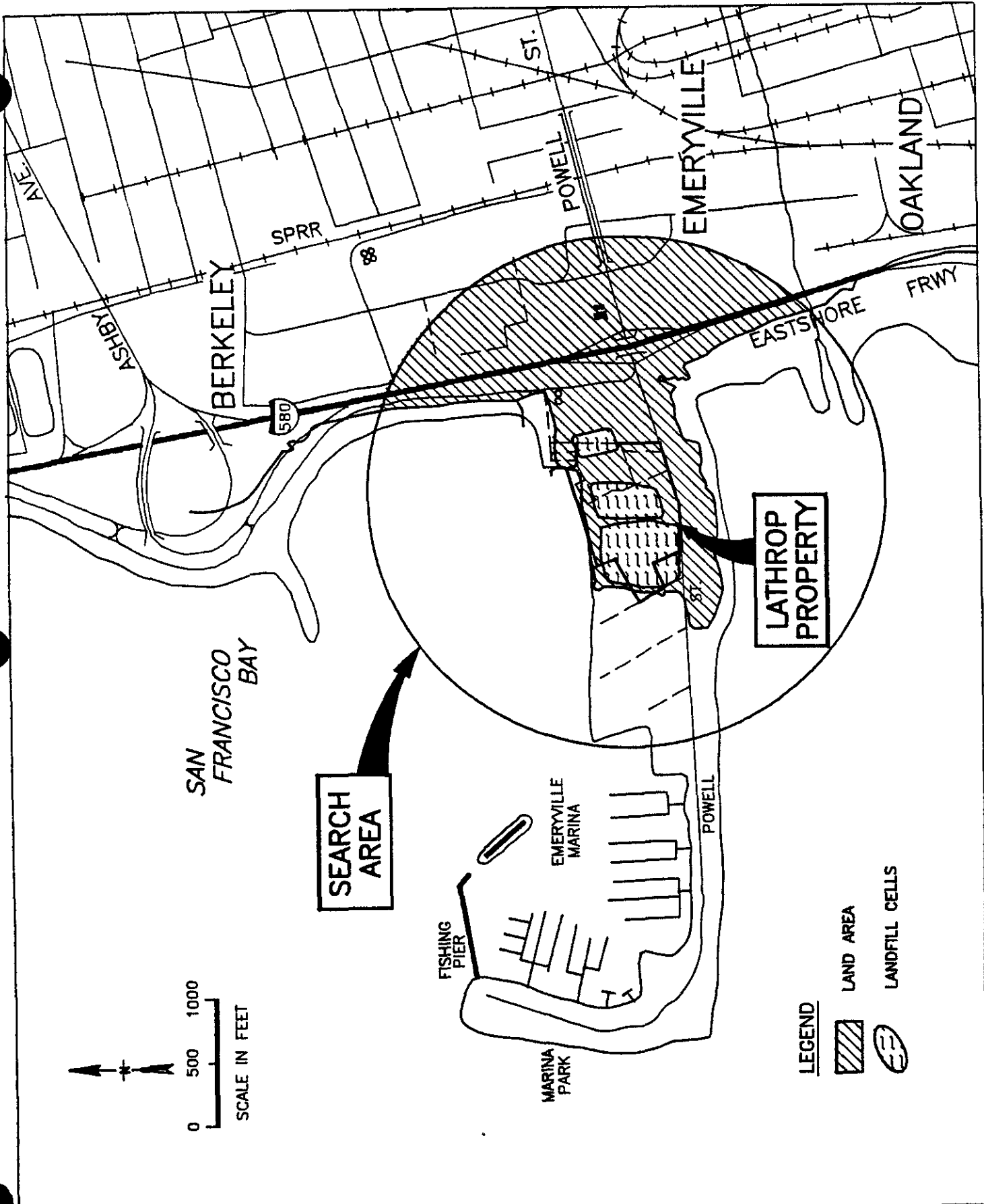
Project No.
BB10235A

**LATHROP PROPERTY
ENVIRONMENTAL ASSESSMENT**

Woodward-Clyde Consultants

**1953 AERIAL PHOTO
INTERPRETATION**

**Figure
4**



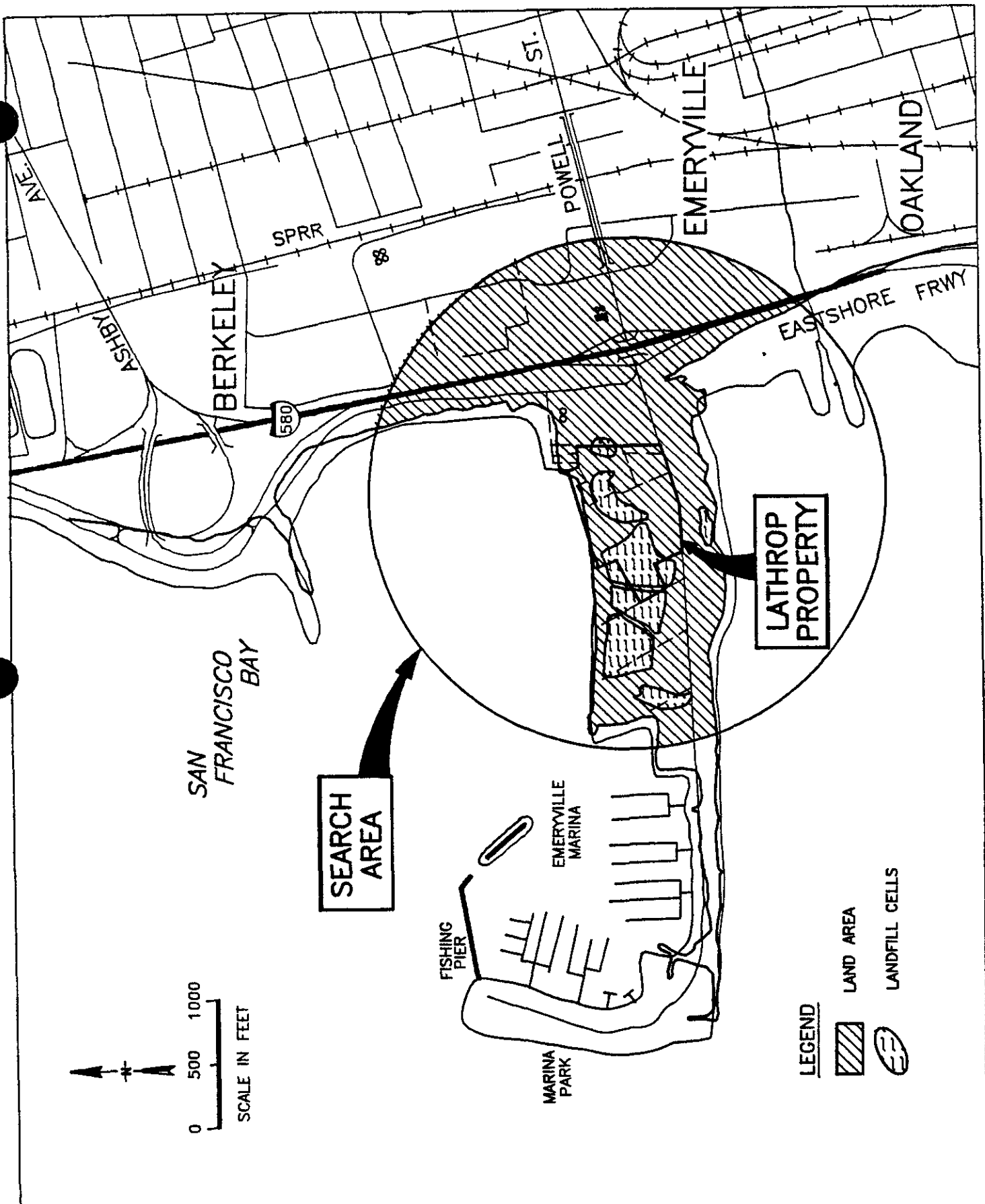
Project No.
BB10235A

LATHROP PROPERTY
ENVIRONMENTAL ASSESSMENT

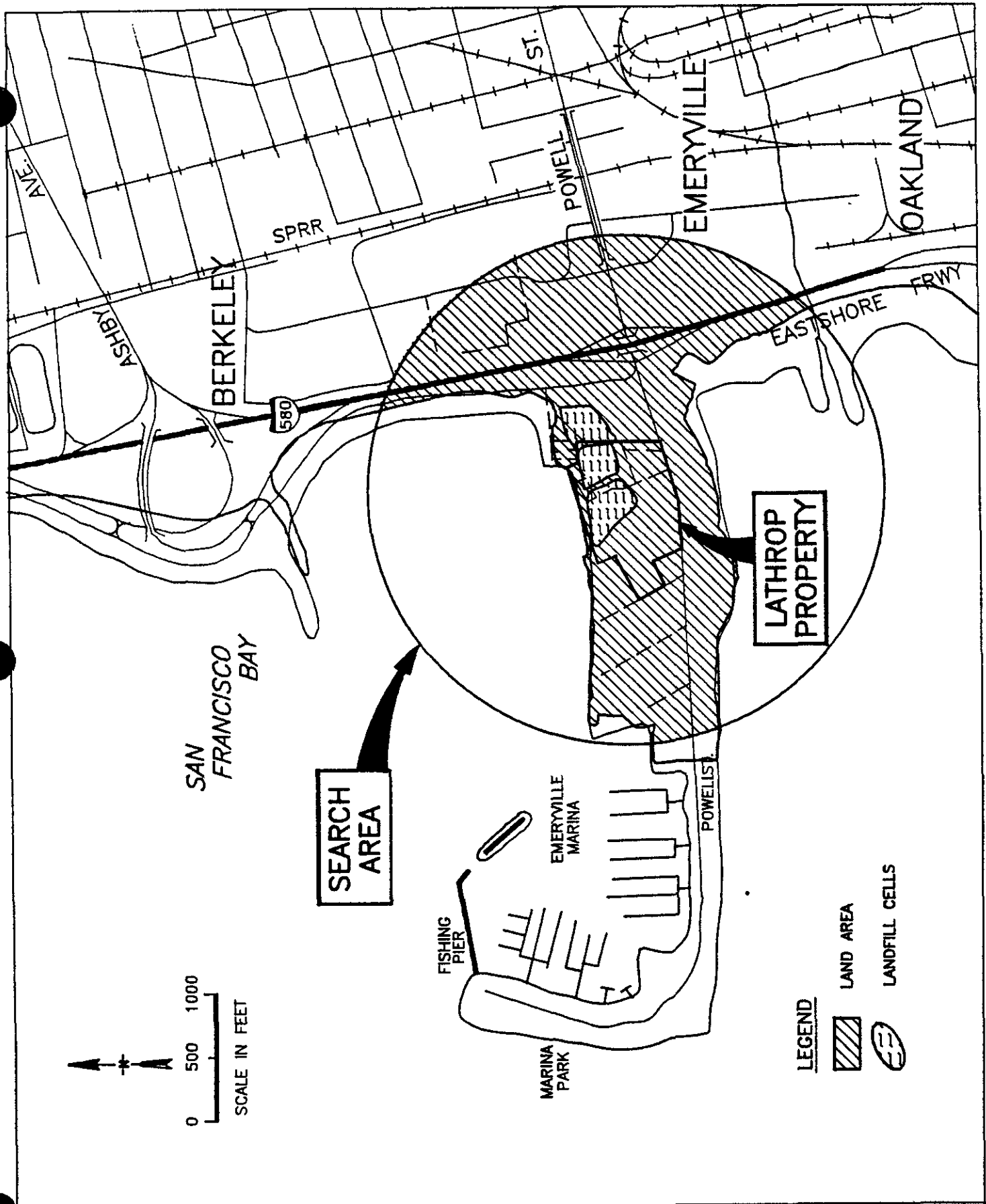
1959 AERIAL PHOTO
INTERPRETATION

Figure
5

Woodward-Clyde Consultants



Project No. 8810235A	LATHROP PROPERTY ENVIRONMENTAL ASSESSMENT	1969 AERIAL PHOTO INTERPRETATION	Figure 6
Woodward-Clyde Consultants			



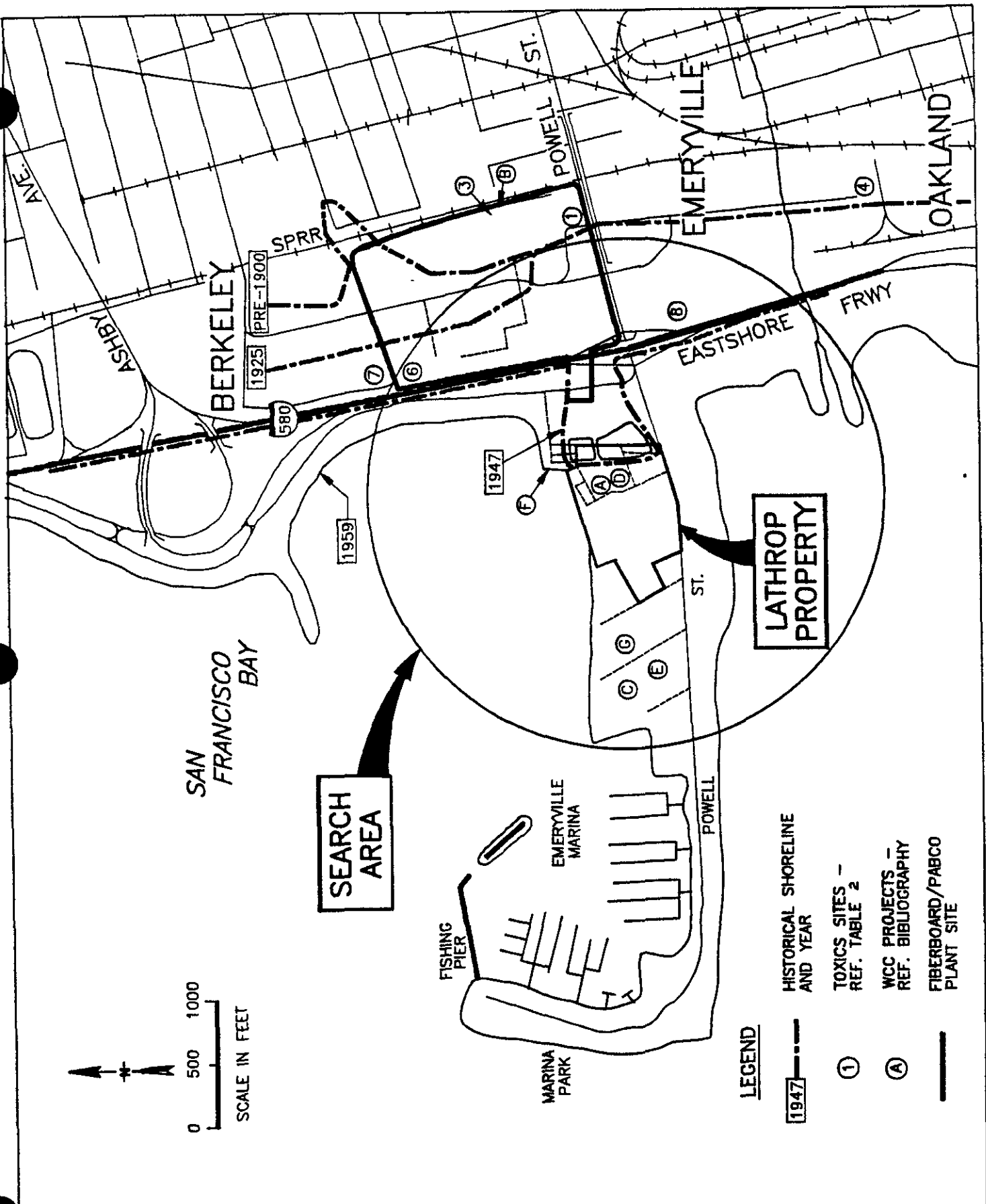
Project No.
BB10235A

LATHROP PROPERTY
ENVIRONMENTAL ASSESSMENT

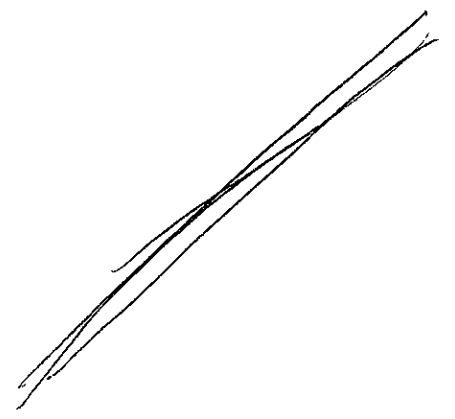
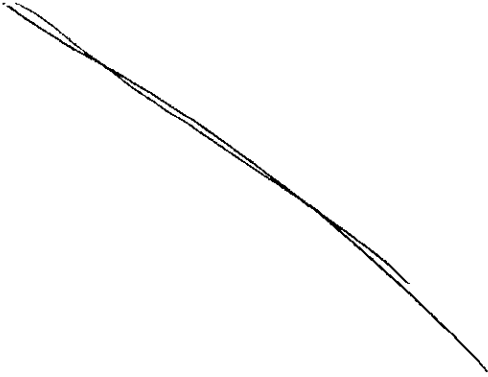
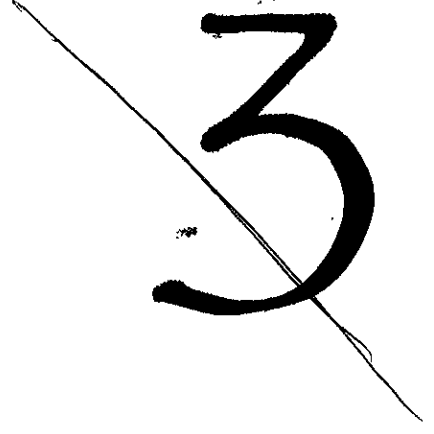
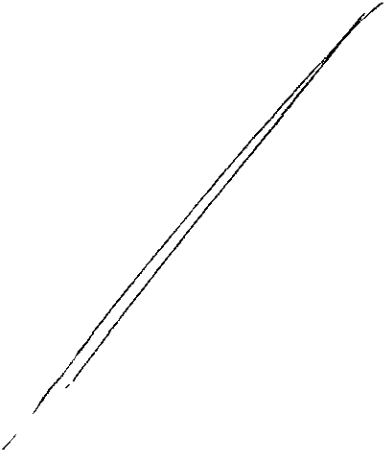
Woodward-Clyde Consultants

1971 AERIAL PHOTO
INTERPRETATION

Figure
7



Project No. BB10235A	LATHROP PROPERTY ENVIRONMENTAL ASSESSMENT	REFERENCE MAP	Figure 8
Woodward-Clyde Consultants			



APPENDIX A
WELLS FARGO REALTY FINANCE
ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT

WELLS FARGO REALTY FINANCE

ENVIRONMENTAL QUESTIONNAIRE AND
DISCLOSURE STATEMENT

PURCHASER/LENDER: _____
SELLER/BORROWER: Mr. F.P. Lathrop, c/o Goldsmith and Lathrop
PROPERTY LOCATION: 2000 Powell Street
Emeryville, California 94608

A. Current/Former Uses of the Property

1. Name of current and all former owner(s):

See Appendix C.

2. Description of current use(s) of the Property (if other than office use exclusively, please provide name(s) of current occupant(s) and date(s) of occupancy):

The property is used exclusively for offices and support facilities including parking structures, parking lots, and landscaped areas.

3. Date of completion of original construction and any substantial renovations (including tenant improvements):

The property has been under development since 1971, when construction began on Watergate Tower I. The most recent phase, Tower III, was completed in 1985.

4. Name(s) of previous occupant(s):

N/A

5. Description of previous use(s) of the Property:

Prior to development, the property was an industrial landfill. Between about 1940 and 1969 the Watergate peninsula was formed by constructing a series of cells impounded by rubble dikes. Each cell extended progressively farther out into San Francisco Bay, and

was filled and capped with soil. Filling of cells on the subject property was essentially complete by 1959.

6. **Description of uses of adjacent properties:**

To the east the property is adjacent to the Watergate Condominium complex and retail shops. To the northwest lies an open grassy field and Charlie Brown's restaurant. Southwest is a Holiday Inn hotel. North lies San Francisco Bay, and south lies Powell Street, then the bay.

B. Asbestos

1. **Is there asbestos currently in any of the construction materials contained in the building(s)?**

Yes. See Appendix D

2. **If so, has a survey been conducted to assess the type, amount, location and condition of asbestos? (If so, please attach a copy of any survey report.)**

Yes. See Appendix D

3. **Have asbestos air samples been taken? If so, what are the results.**

N/A

C. Polychlorinated Biphenyls ("PCBs")

1. **Have polychlorinated biphenyls ("PCBs") been used in electrical transformers, capacitors or other equipment at the Property?**

See C.2.

2. **If so, please describe the use and quantity of PCBs used on the Property.**

No. Russ Penrose of PG&E gave the following comments on PCB use in transformers.

- 1) After a certain date in the early 1980s PG&E no longer purchased transformers containing PCBs in excess of EPA standards.
- 2) It is highly unlikely that Watergate transformers contain PCBs because if they were older they would have been slated for renovation by PG&E during their initial attack on PCB containing transformers in the Bay Area in the early 1980s.

- 3) Russ believes there are five transformers on site. Of these, two were replaced due to malfunction during the past 2 years. The new units certainly do not contain PCBs in excess of EPA standards.
- 4) PG&E provides a transformer-oil testing service, at a cost of \$200 per unit, to analyze the oil for an accurate determination of the amount of PCBs in the oil.

D. Fuel/Chemical Storage Tanks, Drums and Pipelines

1. Are there any above ground or underground gasoline, diesel, fuel oil or other chemical storage tanks on the Property?

Yes, there are two tanks. They are 4 years old and of modern double-fiberglass-wall construction.

2. If so, please describe substances stored and capacity of tank(s).

One 10,000 gallon tank is used for unleaded regular gasoline and a second 10,000 gallon tank contains unleaded supreme fuel.

3. Have the tanks been inspected or tested for leakage? When was the most recent test? What were the results?

No.

4. Are any other chemicals stored on the Property in drums or other containers? If so, please describe the substances, quantities stored, and types of containers.

Mr. Robert Slaney, the Building Services Manager, told us that there are no drums or chemicals stored on site. We did not observe any during our site visit.

5. Have there been any spills, leaks, or other releases of chemicals on the Property? If so, please describe the chemicals and quantities released, any cleanup measures taken, and the results of any soil or groundwater samples performed to detect the presence of the chemicals spilled, leaked, or released on the Property.

None known by property owner or manager since development. (See Section A.5.)

6. Please attach copies of any permits or licenses pertaining to the use, storage, handling, or disposal of chemicals on the Property.

The permits for the fuel storage tanks are kept at the corporate office of the fuel pump operator. Copies have been requested and will be forwarded when available.

E. Air Emissions

1. Describe air emissions from each source of air pollutants, including fuel burning equipment (describe type of fuel burned), on the Property.

No routine air emissions requiring permits are known. Diesel electric power generators are on site for use as backup electrical power sources. These do not generate air emissions except during power interruption.

2. Describe air pollution control equipment used to reduce emissions for each source of air emissions.

N/A

3. Are air emissions monitored? If so, indicate frequency of monitoring.

N/A

4. Please attach copies of any air permits or licenses pertaining to operations on the Property.

N/A

F. Water Discharges

1. List all sources of waste water discharges to surface waters, septic systems, or holding ponds:

None observed or known to property owner or manager.

2. List all sources of wastewater discharges to public sewer systems:

Towers I, II, and III.

3. For each discharge list the average daily flow:

N/A

4. Please attach copies of any water discharge permits or licenses pertaining to operations on the Property.

Mr. Robert Slaney, the Building Services Manager, does not know of any water discharge permits.

G. Waste Disposal

1. Describe the types of liquid wastes (other than wastewater described in part F above) and solid wastes generated at the Property.

No liquid wastes besides sewage. Solid wastes consist of normal office waste paper, etc.

2. Describe how the liquid and solid wastes generated at the Property are disposed.

Oakland Scavenger disposal at landfill.

3. Please attach copies of any waste disposal permits or licenses pertaining to operations on the Property.

N/A

H. If the Property has been or is used for industrial purposes, the following additional information should be provided.

1. Has the Property been used for disposal of any liquid or solid waste? If so, describe the location of all disposal sites, the types of wastes disposed at each site, the results of any soil or groundwater samples taken in the vicinity of each site, and the manner in which each site not presently in use was closed.

See report. See "Watergate Phase I Preliminary Environmental Site Assessment," Woodward-Clyde Consultants, January 20, 1989 (attached).

2. Have evaporation or storage ponds been located on the Property? If so, describe the location of all ponds, the type of wastes placed in each pond, the results of any soil or groundwater samples taken in the vicinity of each pond, and the manner in which each pond not presently in use was closed.

Yes, see report. All ponds now closed.

3. Have wastewater treatment facilities, such as acid neutralization vaults, been located on the Property? If so, please describe the location of all facilities, the type of wastes treated in each facility, the results of any soil or groundwater samples taken in the vicinity of each facility, and the manner in which each facility not presently in use was closed.

No. See report.

4. Are there raw chemical or waste chemical storage areas on the Property? If so, please describe the location of all such areas, the type of products or wastes stored in each area, the amount of products or wastes stored in each area, the results of any soil or groundwater samples taken in the vicinity of each area, and the manner in which each area not presently in use was closed.

No. See report.

I. If the property has been or is used for agricultural purposes, the following additional information should be provided.

- 1. Have pesticides, herbicides, or other agricultural chemicals been applied to the property? If so, please describe the locations where such pesticides, herbicides or chemicals were applied, the type of pesticides, herbicides or chemicals applied in each area, and the results of any soil or groundwater analyses performed to detect pesticides, herbicides or chemicals used at the site.

The property has not been used for agricultural purposes.

- 2. Have pesticides, herbicides or other agricultural chemicals been mixed, formulated, rinsed, or disposed of on the Property? If so, please describe the locations where such pesticides, herbicides or chemicals were mixed, formulated, rinsed, or disposed, the type of pesticides, herbicides or chemicals mixed, formulated, rinsed, or disposed of at each location, and the results of any soil or groundwater analyses performed to detect pesticides, herbicides or chemicals mixed, formulated, rinsed, or disposed at the site.

No. Chemicals used to maintain the landscaped areas are mixed, rinsed, neutralized, and disposed of off site, according to building management and the landscape gardener.

As the present owner of the Property or as an officer or a general partner of the present owner of the Property (or the duly authorized representative of such owner), I am familiar with all of the operations presently conducted on the Property, have made a diligent inquiry into the former uses of the Property and hereby certify to and for the benefit of Lender that to the best of my knowledge, information and belief the information disclosed above is true and correct.

(Signature)

(Title)

ENVIRONMENTAL EVALUATION SUMMARY

The level of detail of an environmental evaluation with respect to real property varies with and depends upon the type of property, its current and former uses, and the uses of neighboring properties. As a result, we recommend an iterative evaluation process. The steps of the evaluation process are generally as follows:

I. Phase I (Routine Investigation):A. Preliminary Inquiry:

1. Environmental Questionnaire and Disclosure Statement. An environmental questionnaire and disclosure statement should be submitted to the seller/borrower early in the transaction as the first step in the environmental evaluation. Generally, the environmental questionnaire and disclosure statement should be completed in connection with the letter of intent or loan application documents.
2. Site Inspection. A site inspection usually should be conducted to verify the seller's/borrower's disclosures, and to evaluate possible environmental risks posed by neighboring properties.
3. Interviews. At the time of the inspection, representatives of the seller/borrower, the property management company, the tenants, as applicable, should be interviewed regarding the current and former uses of the property, the handling of any hazardous waste or hazardous materials at the property, and compliance with applicable environmental regulations. Obtaining tenant estoppel certificates regarding tenants' use and handling of chemicals may also be appropriate.
4. Review of Governmental Agency Records. A review of government agency files and/or discussions with agency staff usually is also warranted to determine if there are known instances of contamination at or near the subject property. In California, the key agencies are the Department of Health Services and the Regional Water Quality Control Boards.
5. Title Searches. Preparation of a chain of title report may also be useful in some circumstances to help verify prior owners and uses of the property.

- B. Evaluation of Preliminary Inquiries. Based on the information provided by the above preliminary inquiry, the purchaser/lender in conjunction with its environmental counsel and experts should make an assessment of the existence or likely existence of hazardous substances or wastes upon the property. If no hazardous substances

or wastes are found to be in existence (or likely to be in existence) upon the property, no further inquiry need be made. If it is determined that there exists (or is likely to exist) hazardous substances or wastes upon the property, then further investigation should be performed prior to proceeding with the contemplated transaction.

II. Phase II (Specific Investigation):

A. Sampling or Testing Plan:

1. Plan Design. Based upon the information provided by the preliminary inquiry, a specific sampling and/or testing plan should be developed in conjunction with the purchaser/lender's (and, as appropriate, the seller's/borrower's) environmental counsel and experts for the purpose of confirming the existence of and/or defining the nature and scope of the existing or potential environmental contamination.
2. Plan Implementation. Qualified technical experts, usually consulting engineering firms, should be retained to perform the physical testing and/or sampling and to provide detailed analytic reports.

B. Evaluation of Specific Investigation:

The analytic reports should be reviewed by the purchaser/lender in conjunction with its environmental counsel and experts for the purpose of evaluating the potential environmental risks associated with hazardous substances or wastes upon the subject property. Additional testing may in some instances be necessary to determine or further refine the environmental evaluation or to provide accurate estimates of the cost of required remedial work.

APPENDIX B
PRELIMINARY PHASE II WORK PLAN

EXPLORATION DRILLING AND SOIL SAMPLING

Exploration drilling is intended to gather site specific environmental data to assist in the environmental assessment of the subject site. The scope of our field activities includes exploratory borings, soil sampling, geological logging, the conversion of exploratory borings to monitoring wells, development of the monitoring wells, and sampling of the developed wells. The soil and water samples will be taken to a state certified analytical laboratory for chemical testing. In order to assess the soil and groundwater beneath the site, WCC believes that the installation of up to six monitoring wells is prudent. The locations of these wells have been determined based upon the locations of former "cells" used to contain debris during the construction of the landfill. One or two monitoring wells will be installed within each "cell" in order to ascertain the average or general conditions in each "cell." Because the site is developed with high-rise buildings and multi-story parking structures, access to ideal drill sites is not practical. The number and location of borings will be adjusted to obtain the best data possible within these confines.

Up to six exploratory borings will be completed at the locations shown on Figure 1 - Project Site Map. The borings will be drilled utilizing 8-inch diameter hollow-stem augers. At completion, each boring will be converted to a groundwater monitoring well. Each well will be completed to a depth of about 30 feet, or penetration of bay mud. While drilling, soil samples from each boring will be collected at depths of about 5, 10, 15,

20, 25, and 30 feet using a modified California Sampler. The soil samples will be retained in 2-inch diameter by 4-inch-long thin wall brass liners that are retained within the drive sampler. The soil samples chosen for laboratory analyses will be sealed on each end with Teflon tape secured by plastic end caps and vinyl tape. After sealing, the samples will be labeled and placed in a chilled ice-chest for transportation to a state certified analytical laboratory. Chain-of-custody procedures will be used for sample transportation and shipping. A WCC geologist will observe the drilling and soil sampling activities and prepare a log of each boring, showing soil types, location of samples, water levels encountered within the boring, odors, and field measurements of organic compounds as detected by an OVA organic vapor meter, or equivalent. OVA measurements will be taken in the "headspace" above secondary samples from each drive. The secondary sample will be partially extruded from the brass liner, capped and allowed to sit for a few moments, the cap will then be pierced and the probe of the OVA meter inserted into the "headspace" with the ensuing reading indicated as the "headspace" concentration on the logs.

Augers will be steam cleaned prior to use at each boring in order to reduce the potential for cross-contamination from one boring to another. Sampling equipment, including drive samplers and brass liners, will be washed in Alconox detergent, and triple rinsed following each drive. The final rinse of sampling equipment will be with distilled water.

Soil cuttings from drilling activities will be placed in 55 gallon drums. The drums will be placed on wooden pallets and stored temporarily on site. Following a review of the results of laboratory tests of the soil samples, WCC will provide recommendations for proper disposal of the soil cuttings.

GROUNDWATER MONITORING WELLS AND WATER SAMPLING

Groundwater monitoring wells will be constructed by installing a 2-inch-diameter PVC flush-threaded well casing down the hollow-stem of the augers. The screened section of the casing will extend from the bottom of the boring (about 30 feet) to within 5 to 5-1/2 feet of the ground surface. A clean sand filter material will be placed in the annulus around the well casing, to a point about 1 foot above the top of the screened section. Bentonite pellets will be placed above the sand filter material to a thickness of about 2 feet, or to a point within the boring such that a grout seal at least 2-1/2 feet thick can be placed, whichever is less. A cement bentonite slurry (neat cement) will be placed from the top of the bentonite pellets to the surface. A locking well cap will be placed in each well casing and locked prior to the end of each work day. Each well will be completed such that the top of each well casing will be located about 6 inches below the ground surface within a christy box type vault, mounted flush with the ground surface.

Groundwater monitoring wells will be developed by pumping or bailing to remove sediment from the wells. Water will be removed until it becomes relatively clear and free of significant sediment. A record of well development procedures will be prepared. During well development, the conductivity, temperature, salinity, and pH of the water will be tracked and recorded about every 10 to 15 gallons of water produced. The wells will be allowed to stabilize for 24 hours after development, then the stabilized groundwater levels (groundwater levels are expected to fluctuate nearly parallel to tidal conditions) will be measured and groundwater samples will be collected. Prior to sampling, 3 to 5 casing volumes of water will be removed from the well until conductivity, temperature, salinity, and pH stabilize. Water samples will then be removed from the well with a Teflon bailer, and placed in containers prepared and provided by the analytical laboratory. The water samples will be placed in a chilled ice-chest for transportation under chain-of-custody procedures to the analytical laboratory.

Groundwater removed from the wells during development and sampling will be placed in 55 gallon barrels, and stored temporarily on site. WCC will recommend proper disposal of the water following review of laboratory test results.

LABORATORY CHEMICAL TESTING

The preliminary environmental site assessment has revealed a range of possible contaminants that may be present in the soil and groundwater at the subject site. These include metal oxides from paint production, chain hydrocarbons with low to high boiling points, and polynuclear aromatic hydrocarbons from paint, roofing, and flooring material manufacture and organochlorine pesticides from landscape maintenance.

Soil samples from each well will be combined by the laboratory into one composite sample per well. The composite sample represents the average soil profile from the surface to total depth of the borehole. Thus the five to six boreholes will yield five to six composite samples for analysis. The testing schedule shown below is designed to reveal any of these compounds present above detectable levels.

<u>Target Chemical Group</u>	<u>Test Method</u>
Gasoline & BTXE (1)	EPA 8015
Diesel Fuel	EPA 8015
Waste Oil and Grease	Gravimetric
Purgeable Organics by GCMS(2)	EPA 8240
Extractable Organics by GCMS	EPA 8270
Organochlorine Pesticides	EPA 8080
Title 22 Metals	AAS/ICP
Hexavalent Chrome	AAS/ICP

Water samples will be analyzed for the same suite of chemical compounds. A table of water analyses is shown below.

<u>Target Chemical Group</u>	<u>Test Method</u>
Gasoline and BTXE	EPA 8015
Diesel fuel	EPA 8015
Waste oil and grease	Gravimetric
Purgeable organics by GCMS	EPA 624
Extractable organics by GCMS	EPA 625
Organochlorine pesticides	EPA 608
Title 22 Metals	AAS/ICP
Hexavalent chrome	AAS/ICP

Results of these soils and water tests will be reported relative to total threshold limit concentrations (TTLCs) or soluble threshold limit concentrations (STLCs) which the State of California uses to define the hazardous level of a chemical. Detection limits of the analytical instruments will also be shown.

- (1) BTXE is an acronym for the aromatic compounds benzene, toluene, the xylene group and the ethylbenzene group.
- (2) GCMS is an acronym for gas-chromatography-mass spectrometry, an analytical technique combining an instrument (GC) that separates compounds in a mixture, then analyzes (MS) their partial-combustion products by mass.

APPENDIX C
CHAIN-OF-TITLE

1. GRANT DEED:
Dated: November 9, 1922
Grantor: M.L. Hering
Grantee: The Paraffine Companies,
Inc.
Recorded: November 16, 1922
Series No.: S-239463
Affects: Lot 25, Section 15, Town-
ship 1 South Range 4 West,
Sale Map No. 11, Salt Marsh
and Tide Lands
2. GRANT DEED:
Dated: October 19, 1926
Grantor: Johathan M. Peel, et al
Grantee: The Paraffine Companies,
Inc.
Recorded: October 22, 1926
Series: W-88569
Affects: Lot 32, Section 16 Town-
ship 1 South Range 4 West
Sale Map No. 11 Salt Marsh
and Tide Lands
3. MERGER:
Former Name: The Paraffine Companies, Inc.
New Name: Pabco Products, Inc.
4. MERGER:
Former Name: Pabco Products, Inc.
New Name: Fibreboard Corporation
5. GRANT DEED:
Dated: March 21, 1969
Grantor: Fibreboard Corporation
Grantee: McClosky-Lathrop, a partnership
Recorded: March 24, 1969
Series No.: 69-32391
Affects: Tower I and other property
6. GRANT DEED:
Dated: October 11, 1971
Grantor: McCloskey-Lathrop, a partnership
Grantee: F. Pierce Lathrop, as to an
50% interest
Matthew H. McCloskey, as to a 15%
interest
Anne McCloskey Reimel, as to a
10% interest
William K. Stewart, as to a
10% interest
Recorded: October 22, 1971
Series No.: 71-139045
Affects: Tower I
7. GRANT DEED:
Dated: June 29, 1973
Grantor: Thomas D. McCloskey
Grantee: Watergate Tower Associates
Recorded: July 17, 1973
Series No.: 73-96414
Affects: Tower I
8. GRANT DEED
Dated: June 29, 1973
Grantor: Anne McCloskey Reimel
Grantee: Watergate Tower Associates
Recorded: July 17, 1973
Series No.: 73-96415
Affects: Tower I
9. GRANT DEED:
Dated: June 29, 1973
Grantor: William K. Stewart
Grantee: Watergate Tower Associates
Recorded: July 17, 1973
Series No.: 73-96416
Affects: Tower I
10. GRANT DEED:
Dated: July 13, 1973
Grantor: Edwin J. Dapello, as
administrator of the
estate of Matthew H.
McCloskey
Grantee: Watergate Tower Associates
Recorded: July 17, 1973
Series No.: 73-96418
Affects: Tower I
11. GRANT DEED:
Dated: July 17, 1973
Grantor: F. Pierce Lathrop
Grantee: Watergate Tower Associates
Recorded: July 17, 1973
Series No.: 73-96419
Affects: Tower I

1. GRANT DEED:
Dated: November 9, 1922
Grantor: M.L. Hering
Grantee: The Paraffine Companies, Inc.
Recorded: November 16, 1922
Instrument No.: S-239463
Affects: Lot 25, Section 15 Township 1 South Range 4
West, Sale Map No. 11, Salt Marsh and Tide Lands
2. GRANT DEED:
Dated: October 19, 1926
Grantor: Jonathan M. Peel, et al.
Grantee: The Paraffine Companies, Inc.
Recorded: October 22, 1926
Instrument No.: W-88569
Affects: Lot 32, Section 16, Township 1 South Range 4
West, Sale Map No. 11, Salt Marsh and Tide Lands
3. MERGER:
Former Name: The Paraffine Companies, Inc.
New Name: Pabco Products, Inc.
4. MERGER:
Former Name: Pabco Products, Inc.
New Name: Fibreboard Corporation
5. GRANT DEED:
Dated: March 21, 1969
Grantor: Fibreboard Corporation
Grantee: McClosky-Lathrop, a partnership
Recorded: March 24, 1969
Instrument No.: 69-32391
Affects: Tower II and other property
6. GRANT DEED:
Dated: February 14, 1977
Grantor: McCloskey-Lathrop, a partnership
Grantee: F. Pierce Lathrop
Recorded: June 27, 1977
Instrument No.: 77-125016
Affects: Tower II and other property
7. GRANT DEED:
Dated: March 3, 1978
Grantor: F. Pierce Lathrop
Grantee: Tower II, a limited partnership
Recorded: March 3, 1978
Instrument No.: 78-038699
Affects: Tower II

1. GRANT DEED:
Dated: November 9, 1922
Grantor: M.L. Hering
Grantee: The Paraffine Companies, Inc.
Recorded: November 16, 1922
Instrument No.: S-239463
Affects: Lot 25, Section 15 Township 1 South Range 4
West, Sale Map No. 11, Salt Marsh and Tide Lands

2. GRANT DEED:
Dated: October 19, 1926
Grantor: Jonathan M. Peel, et al.
Grantee: The Paraffine Companies, Inc.
Recorded: October 22, 1926
Instrument No.: W-88569
Affects: Lot 32, Section 16, Township 1 South Range 4
West, Sale Map No. 11, Salt Marsh and Tide Lands

3. MERGER:
Former Name: The Paraffine Companies, Inc.
Now Name: Pabco Products, Inc.

4. MERGER:
Former Name: Pabco Products, Inc.
New Name: Fibreboard Corporation

5. GRANT DEED:
Dated: March 21, 1969
Grantor: Fibreboard Corporation
Grantee: McClosky-Lathrop, a partnership
Recorded: March 24, 1969
Instrument No.: 69-32391
Affects: Tower II and other property

6. GRANT DEED:
Dated: February 17, 1977
Grantor: McCloskey-Lathrop, a partnership
Grantee: F. Pierce Lathrop
Recorded: June 27, 1977
Instrument No.: 77-125816
Affects: Tower III and other property

7. GRANT DEED:
Dated: September 22, 1983
Grantor: F. Pierce Lathrop
Grantee: Watergate Tower III Associates, a limited
partnership
Recorded: September 23, 1983
Instrument No.: 83-177097
Affects: Tower III

APPENDIX D
ASBESTOS INSPECTION MEMO

MEMORANDUM

January 24, 1989

To: Alan Lattanner

From: Ann McDonald

Subject: Preliminary asbestos survey of 1800 Powell St.,
Oakland, California, January 23, 1989.

A tour of the following sections of the building at 1800 Powell St., Oakland, California was done January 23 to identify possible asbestos containing material (ACM) or asbestos containing building material (ACBM) in a preliminary survey. Joe Condon, maintenance foreman for the building, accompanied me. The following areas were examined; heating and cooling and air circulating systems, boiler and cooler rooms, stairwells on the 1st and 12th floors, hall areas of the 1st and 12th floors, electrical control room, janitors closets, maintenance room and lunch room.

. Air circulation system located on the roof ; water cooling and heating pipes are encased in possible ABM which is covered with aluminum except at the joints. Flexible aluminum at the joints is deteriorating in some cases, in general the system is well maintained. The seals on the main housing for the system were all new 3 or 5 years ago according to Mr. Condon.

. Boiler Room; the insulation on the ceiling hot water pipes is possible ACM, and are original with the building according to Mr. Condon. They are sealed with paper-cloth wrap with minor deterioration at the ends of some of the joints.

. Chiller room; the insulation on the pipes is possible ACM. It is all original according to Mr. Condon. The insulation is deteriorating some sections. The unit has just been serviced and some section of insulation material has been peeled back and left hanging. The main circulation ducts are encased in an aluminum housing.

. Return air shaft room located on the roof; there is a problem with the liner covering the return air duct system leading throughout the building. Pieces of the insulating material are breaking off in chunks and traveling through the system to the difusers in the rooms throughout the building. this was observed in the difuser in the maintenance lunch room. The material is not identified. It did not appear in the building specifications book Mr. Condon had on hand, and a brand name was not visible in the undeteriorated sections. According to MR. Condon this material all has to be replaced.

. The electrical room and janitors closets have no visible ACBM. Due to the age of the building the accoustical ceiling tiles and nine inch floor tiles probably contain asbestos, however the condition of these items appears to be good. The ceiling tiles show normal wear with some chips in those that

have been moved for access to other systems, but wear is not excessive. The materials are not deteriorated.

Due to the age of this building, some asbestos containing materials are expected to be present. Those that are identified as possible ACM or ACBM are in generally good condition. A detailed inspection of the building was not made.