

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
PORT OF OAKLAND
1275-1441 EMBARCADERO
OAKLAND, CALIFORNIA**

Prepared for

Port of Oakland
Oakland, California

Prepared by

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CERTIFICATION

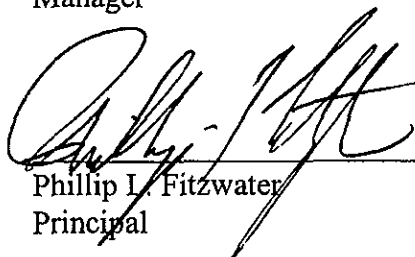
This environmental review of the properties located at 1275-1441 Embarcadero in Oakland, California was conducted by Iris Environmental on behalf of the Port of Oakland. The review conducted by Iris Environmental meets or exceeds the requirements for a Phase I environmental site assessment specified in the American Society for Testing and Materials (ASTM) Standard E 1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process*.

Resumes for the environmental professionals involved in this review, Ms. Smith and Mr. Fitzwater of Iris Environmental, are included in Appendix A.

 a.r. for

Karen T. Smith, R.E.A.
Manager

Date 3/15/02



Phillip L. Fitzwater
Principal

3/15/02
Date

LIMITATIONS

This report has been prepared exclusively for use by the Port of Oakland and may not be relied upon by any other person or entity without the express written permission of Iris Environmental. The conclusions presented in this report represent Iris Environmental's professional judgment based on the information available to us during the course of this assignment and on conditions that existed at the time of the assessment. No independent verification of the information provided to Iris Environmental was made. While Iris Environmental has no reason to doubt the accuracy of any of the information provided, this report is accurate and complete only to the extent that information provided to Iris Environmental was itself accurate and complete.

I. INTRODUCTION

On behalf of the Port of Oakland, an environmental review of the properties located at 1275-1441 Embarcadero in Oakland, California ("the Site") was conducted. The purpose of the review was to identify any recognized environmental conditions, as defined in the American Society for Testing and Materials (ASTM) Standard E 1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process*.

This report presents the results of our investigation. It is based primarily on the following:

- Visits to the Site by Ms. Karen Smith of Iris Environmental on December 11 and 12, 2001.
- Interviews with Ms. Sunni Rounds, Commercial Real Estate, Port of Oakland and Mr. Reinhard Boost, General Manager, Marine Max.
- A review of documents provided by Port of Oakland personnel.
- A review of the United States Geological Survey (USGS) 7.5-minute topographical maps for Oakland East and Oakland West, California dated 1993 and historical topographic maps of the same two quadrangles dated 1949, 1959, 1968, 1973, and 1980.
- A review of historical aerial photographs dated 1930, 1950, 1959, 1969, 1979, 1989, and 1998 at Pacific Aerial Surveys in Oakland, California.
- A review of historical fire insurance maps dated 1903, 1911, 1950, 1952, 1953, 1957, 1959, 1960, 1964, 1965, 1967, and 1969 provided by Environmental Data Resources, Inc. (EDR).
- A review of city directories dated 1972, 1976, 1979, 1985, 1990, and 1997 provided by Fidelity National Information Solutions (FNIS).

- A review of permit information on file at the City of Oakland Building Department.
- A review of documents on file at the City of Oakland Fire Department (OFD).
- A review of documents on file at the Regional Water Quality Control Board (RWQCB).
- A search of regulatory agency databases for the Site and vicinity conducted by VISTA Information Solutions, Inc. and reported on October 30, 2001. A copy of the VISTA report is presented as Appendix B.

In addition, a file review request was submitted to the Alameda County Health Care Services Agency (ACHCSA). ACHCSA personnel reported that no records were on file for the 1275-1363 Embarcadero Site addresses and that the ACHCSA case is closed for the 1441 Embarcadero Site address. ACHCSA personnel indicated that the OFD should be contacted for records relating to the 1441 Embarcadero property.

No environmental or drinking water samples were collected as part of this assessment.

II. FINDINGS AND CONCLUSIONS

This Phase I environmental site assessment of the properties located at 1275-1441 Embarcadero in Oakland, California (the "Site") has been conducted in conformance with the scope and limitations of ASTM Practice E 1527-00. Any exceptions to, or deletions from, this practice are described in Section IV of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except for the following:

1275 Embarcadero

- An underground storage tank (UST) was removed from the 1275 Embarcadero property in 1970. Recent soil and groundwater investigations in the vicinity of the former UST conducted in 2000 and 2001 indicate that soil and groundwater have been impacted by total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, TPH as motor oil, benzene, toluene, ethylbenzene, and xylenes (BTEX), several volatile organic compounds (VOCs), and a few semivolatile organic compounds (SVOCs). A risk-based screening level (RBSL) evaluation conducted for the property indicated that the chemicals detected in soil and groundwater do not pose unacceptable risks to human health or the environment under the current plans for Site redevelopment.

1285 Embarcadero

- Previous reports indicate that hollow areas exist beneath the current concrete floor in the building located at 1285 Embarcadero and that these areas may represent current or former locations of sumps. One subsurface cavity identified beneath the concrete floor in the building was identified as a potential former resin tank for coating fiberglass rolls used for boat repairs. Several chlorinated solvents were detected in a groundwater sample collected from the location of the subsurface cavity. No other chemicals were detected in the groundwater or soil samples from this location. No additional information regarding soil or groundwater investigations conducted at the 1285 Embarcadero property was found during this assessment.

1363 Embarcadero

- Staining of the concrete floors in the three buildings located on the 1363 Embarcadero property (Port Buildings P-104, P-113, and P-114) was noted during the site visit. In addition, staining was noted on the concrete ground surface on the western side of Building P-113 in an area where hazardous materials, such as new and used oil and antifreeze, are stored.

1441 Embarcadero

Numerous soil and groundwater investigations have been conducted on the 1441 Embarcadero property between 1989 and 1997 under the oversight of the Alameda Health Care Services Agency (ACHCSA). The ACHCSA has overseen investigation and remedial activities related to two former USTs under the Local Oversight Program (LOP). All other investigations and remedial activities at the 1441 Embarcadero property were conducted with oversight from the ACHCSA's Spills, Leaks, Investigations, and Cleanups (SLIC) program. The SLIC and LOP cases for the 1441 Embarcadero property were closed in 1999 and 2000, respectively, as discussed in the following two bullets.

- Two USTs were removed from the property in 1991 and 1994. ACHCSA oversaw soil and groundwater investigations in the vicinity of the two former UST locations under the LOP program. The LOP case for the 1441 Embarcadero property was closed by the ACHCSA in January 2000 when the ACHCSA issued a Fuel Leak Case Closure letter (ACHCSA 2000a) and a Remedial Action Completion Certification (ACHCSA 2000b), which confirmed the completion of the investigation and cleanup of the reported release from the former USTs at the 1441 Embarcadero property. The Fuel Leak Case Closure letter indicates that 72 parts per million TPH as diesel remained in soil and 440 parts per billion TPH as diesel remained in groundwater at the 1441 Embarcadero property (note: units as reported in the Case Closure letter). In addition, a Case Closure Summary (ACHCSA 2000c) attached to the Fuel Leak Case Closure letter indicates that the corrective action taken at the 1441 Embarcadero property should be reviewed if land use changes.

- ACHCSA oversaw investigation and remediation activities at the 1441 Embarcadero property related to contamination caused by surface releases resulting from historical ship repair activities under the SLIC program. A Site Summary prepared by the ACHCSA (ACHCSA 2000d) indicates that an extensive SLIC investigation was conducted at the 1441 Embarcadero property and that the SLIC investigation was closed in June 1999. A closure letter from the ACHCSA for the SLIC investigation was not found during this assessment.

Based on the closure of the ACHCSA's LOP and SLIC cases for the 1441 Embarcadero property, it appears that the ACHCSA considers investigation and remediation activities to be complete at the 1441 Embarcadero property. However, based on a review of documents on file at the Port, several issues regarding the presence of chemicals in soil at the 1441 Embarcadero property were identified, and no documentation of resolution of these issues was found. Because these issues pre-date the ACHCSA's LOP and SLIC case closures, it is likely that they were resolved. In order to confirm that these issues were in fact resolved, it may be necessary to contact ACHCSA. The following issues were identified:

- An addendum to a Phase II Site Investigation Work Plan prepared in 1992 (Versar 1992b) indicates that four areas of identified soil contamination in the western section of the 1441 Embarcadero property were to be excavated and treated via on-site thermal treatment. The planned excavation was intended to remove soils exceeding limits for BTEX and TPH approved in a letter from the ACHCSA. It was estimated that approximately 3,500 cubic yards of soil would be excavated, treated on-site, and reused as backfill on-site. No additional information regarding excavation activities on the western portion of the 1441 Embarcadero property was found during this assessment. However, because the ACHCSA closed the SLIC case at the 1441 Embarcadero property, it is likely that the soils containing elevated BTEX and TPH concentrations were excavated.

- In 1995, approximately 40 tons of soil from two locations on the eastern portion of the 1441 Embarcadero property with lead concentrations in soil that exceeded the total threshold limit concentration (TTLC) or soluble threshold limit concentration (STLC) for lead, which are used when determining the hazardous waste characterization under California State regulations, were excavated. Confirmation soil samples collected after the soil excavation activities indicated that lead concentrations exceeding the TTLC or STLC were present. Additional soil samples collected in February 1996 contained a maximum lead concentration of 4,100 milligrams per kilogram (mg/kg). No information regarding additional excavation activities was found during this assessment; however, a letter from the ACHCSA indicated that the elevated lead concentrations at the 1441 Embarcadero property would have to be addressed prior to closure of the SLIC case. Since the ACHCSA closed the SLIC case, it is likely that the elevated lead concentrations were addressed.
- A risk assessment for the 1441 Embarcadero property was prepared in 1996 and submitted to the ACHCSA. The risk assessment was updated using additional data collected from the 1441 Embarcadero property in 1998. The excess cancer risk calculated for an industrial worker was above the acceptable cancer risk of 1.0×10^{-6} , and the hazard index (HI) was below the acceptable HI of 1.0. The risk assessment concluded that the excess cancer risk resulted entirely from the detection of polycyclic aromatic hydrocarbons (PAHs) in two soil samples. No information regarding excavation of soils containing elevated PAH concentrations was found during this assessment. It should be noted that the ACHCSA reviewed the results of the risk assessment prior to closing the LOP case in January 2000.

Finally, it should be noted that results of a recent investigation conducted by Baseline Environmental Consulting (Baseline) in 2001 indicated that the lead concentration detected in a composite soil sample collected from the 1441 Embarcadero property contained lead at a concentration of 1,500 mg/kg, which is above the TTLC of 1,000 mg/kg, which indicates that the soil would be considered a California hazardous

waste if excavated for off-site disposal purposes. Baseline concluded that further characterization of the soils on the 1441 Embarcadero property would be required prior to development if soils were to be excavated from the 1441 Embarcadero property.

The following issues identified at the Site, while not recognized environmental conditions, are considered noteworthy:

1311 Embarcadero

- Records on file at the Oakland Building Department indicate that Standard Oil Company operated at the 1311 Embarcadero property in 1972. No information regarding the operations conducted by Standard Oil Company was found during this assessment.

1363 Embarcadero

- An UST was removed from the 1363 Embarcadero property in 1994. Soil and groundwater samples were collected from the excavation, groundwater was pumped from the excavation, and a total of approximately 35 cubic yards of soil were excavated. Based on the results of the soil and groundwater sampling, the ACHCSA issued a No Further Action letter to the Port for the UST in January 1995.

1441 Embarcadero

- Sediment contamination was identified during investigations at the 1441 Embarcadero property. Contaminated sandblast grit was vacuumed and swept from the property in 1995, and a work plan for removal of spent sandblast grit from the inter- and supra-tidal zones was submitted to the Regional Water Quality Control Board (RWQCB). The RWQCB issued a Cleanup and Abatement Order (CAO) for the 1441 Embarcadero property in July 1996, which related to removal of loose grit from the inter-tidal and supra-tidal zones and incorporated the work plan. In March 1997, approximately 3,500 tons of grit were removed from the 1441 Embarcadero property and disposed of at an

approved landfill. The RWQCB rescinded the CAO in April 1998 in a letter indicating that Board staff concurred with the scope of work completed and that the work was satisfactory in response to the CAO.

Site-Wide

- The VISTA report, which is reproduced in Appendix B, indicates that 23 leaking underground storage tank (LUST) facilities are located within one half-mile of 1275-1441 Embarcadero. Of the 23 LUST facilities, one facility, Cooper Tire Shop, which is located 0.13 miles from 1275-1441 Embarcadero in a potentially upgradient location (assuming groundwater flows southwest toward Brooklyn Basin), has had a confirmed release from an UST. The Cooper Tire Shop is located across Highway 880 to the north of 1275-1441 Embarcadero. The VISTA report indicates that the affected media at the Cooper Tire Shop is not known. Given the distance from 1275-1441 Embarcadero and location across Highway 880, it is unlikely that releases from the Cooper Tire Shop have impacted 1275-1441 Embarcadero.

In addition to the standard scope of the ASTM practice, the Port of Oakland requested identification of gaps in known Site history. The following are gaps in known Site history identified during this assessment:

1275 Embarcadero

- Permits on file at the Oakland Building Department (OBD) indicate that Acme Pallet Company operated on the 1275 Embarcadero property between 1954 and 1960, and records on file at the Port indicate that Acme Pallet Company operated on the 1275 Embarcadero property between 1965 and 1969. No information on tenants or operations conducted on the 1275 Embarcadero property prior to 1954 was found during this assessment.

1285 Embarcadero

- Historical fire insurance maps indicate that a lumber shed was located on the 1285 Embarcadero property in 1950. No information regarding the tenant(s) or

operations in the lumber shed or earlier operations conducted on the property was found during this assessment. Edwards Heat Treating operated on the 1285 Embarcadero property between 1956 and 1974. Permit information on file at the OBD indicate that East Bay Boat Works, Inc. occupied the 1285 Embarcadero property in 1975 and that BMW Marine Power, Inc. occupied the property between 1980 and 1983. Records on file at the Port of Oakland indicate that a BMW dealership was located on the property in 1987. No information regarding operations conducted on the property between 1975 and 1980 or regarding the type of operations conducted by East Bay Boat Works, Inc. or BMW was found during this assessment.

1311 Embarcadero

- Historical fire insurance maps indicate that a lumber shed was located on the 1311 Embarcadero property in 1950 and that buildings used for boat storage and repair were located on the property in 1959. No information regarding the tenant(s) or operations in the lumber shed or boat storage/repair buildings or earlier operations was found during this assessment. Records on file at the OBD indicate that Chrysler Boats/Outboard Motors operated on the 1311 Embarcadero property in 1967 and that Standard Oil Company operated on the property in 1972. No information regarding operations conducted by Chrysler and Standard Oil was found during this assessment, and no information regarding operations conducted between 1959 and 1967 and 1972 and 1983 was found.

1363 Embarcadero

- Records on file at the OBD indicate that Baycraft Boats Limited operated on the 1363 Embarcadero property in 1948. Historical fire insurance maps indicate that buildings used for boat works and a machine shop were located on the 1363 Embarcadero property in 1950 and 1957. No information regarding tenants or operations conducted in these buildings or earlier operations was found during this assessment. OBD records indicate that Dusty Rhodes conducted boat sales and service on the property in 1958, Steve's Marine conducted marine sales between 1972 and 1979, and Bell Marine operated at the property in 1983. No

information regarding tenants or operations conducted between 1958 and 1972 and 1979 and 1985 was found during this assessment.

1441 Embarcadero

- The 1441 Embarcadero property was filled in approximately 1913 with permission from the Oakland City Council using fill consisting of mud from the bottom of the Oakland Inner Harbor. A boat repair and marine railway facility operated on the 1441 Embarcadero property between 1911 and 1991. Detailed information about operations conducted on the property throughout the 80-year period of operation was not found during this assessment.

Site-wide

- The western portion of the Site (1275-1363 Embarcadero) was filled subsequent to 1913. No information regarding the date of the western filling operations or source of the western fill materials was found during this assessment.
- In addition, some information, such as a tenant name, is known for various years for portions of the Site, but detailed information on many of the tenants, such as type of operations conducted, was not found during this assessment.

III. DESCRIPTION OF THE SITE AND ITS OPERATIONS

A. Site Description and History

1. Physical Description and Setting

The Site is an approximately 4.5-acre property located at 1275-1441 Embarcadero in Oakland, California, as shown on Figure 1, which is owned by the Port of Oakland. The Site consists of five properties identified by the following individual current street addresses: 1275, 1285, 1311, 1363, and 1441 Embarcadero, as shown on Figure 2. These addresses will be used throughout this report to discuss each portion of the Site.

An approximately 4,800 square-foot former restaurant building (Port Building P-117) is located on the 1275 Embarcadero property. The building is currently surrounded by a chain link fence that restricts public access to the building. The restaurant building is vacant and unused, and all restaurant equipment, such as dining tables, chairs, refrigerators, and freezers, has been removed from the building. Paved parking areas are located on the west, north, and east sides of the building. Landscaping and a paved walkway are located on the west side of the building. At the time of the site visit, seven storage containers were located in the paved parking lot areas. According to Ms. Rounds, the construction company working on the adjacent property to the west stores construction equipment in the storage containers.

Marine Max leases five buildings located at 1285, 1311, and 1363 Embarcadero. The building located at 1285 Embarcadero (Port Building P-106) is approximately 6,500 square feet and is used by Marine Max as a boat sales showroom. Motorboats are stored inside the building and outdoors on the northern and eastern sides of the building, which are paved. A paved driveway is located on the west side of the building, and a paved walkway and landscaping are located on the southern side of the building. A paved parking lot, which is used for vehicle parking, is located between the buildings located at 1285 and 1311 Embarcadero. An approximately 5,000 square-foot building (Port Building P-108) is located at 1311 Embarcadero east of the parking lot. Marine Max uses the building for boat storage. The area on the north side of the building is paved and was unused at the time of the site visit. Numerous boats were stored on the east side of the building, and the area on the southern side of the building was paved and used for vehicle

parking. Three buildings are located at 1363 Embarcadero east of the boat storage area. An approximately 4,500 square-foot building (Port Building P-104) houses Marine Max's boat service and repair operation as well as a boat supply retail store. One of the two smaller buildings located on the south side of the service building is used for storage of parts and boat decorations (Port Building P-113), and the other small building (Port Building P-114) is used for upholstery repairs and storage.

The 1441 Embarcadero property is currently vacant and unused. A chain-link fence is located along the northern boundary of the property, and no structures are located on-site. A portion of the property is covered with deteriorated asphalt, and the remainder of the property is covered with dirt, gravel, and/or grasses. No major vegetation is located on the property. The property was not entered through the locked fence, but no evidence of major staining was noted based on observations made through the fence.

The Site is located in a commercial/industrial area in western Oakland. Embarcadero Road is located along the northern side of the Site, and railroad tracks and Interstate 880 are located north of Embarcadero Road. The property located on the east side of the Site is occupied by an Executive Inn hotel. Brooklyn Basin, which is part of the Oakland Inner Harbor, is located on the southern side of the Site. Several boat docks owned by the Port of Oakland are located in the Basin, and a small building, which was formerly the harbormaster's house, is located south of the on-site building located at 1311 Embarcadero. A nonhazardous waste dumpster and an aboveground waste oil storage tank are located adjacent to the harbormaster's house. An office trailer occupied by Integre Marine, which conducts boat sales, is located in the paved parking lot on the west side of the 1275 Embarcadero property. According to Ms. Rounds, Integre Marine leases approximately 1,000 square feet of space in the parking lot for the office trailer and parking. The address on the Integre Marine trailer is 1155 Embarcadero. A Homewood Suites by Hilton hotel is under construction adjacent to the west side of the Integre Marine trailer. During the site visit, no observations of any obvious conditions at any neighboring properties that likely represent significant environmental concerns to the Site were made. The nearest residents to the Site are residents who live in the boats that are anchored at the Port's docks on the south side of the Site.

According to Mr. Boost, water and sewer services are provided to the Marine Max buildings by the City of Oakland, and electricity and natural gas are provided by Pacific

Gas & Electric (PG&E). According to Ms. Rounds, the former restaurant building is connected to the City of Oakland water and sewer systems. Ms. Rounds stated that all electricity and natural gas supplies to the former restaurant building have been shut off.

2. General Site Conditions

At the time of the site visit, the building located at 1275 Embarcadero was vacant and unused. The building was locked and surrounded by a fence to prevent unauthorized entry. The exterior and interior of the building were in relatively good condition, although some storm water was ponded on the floor in the restaurant where a recent roof leak had occurred.

The Marine Max buildings located at 1285, 1311, and 1363 Embarcadero were in good condition at the time of the site visit. Some staining was noted on the concrete floors of the three buildings located at 1363 Embarcadero. The paved areas surrounding the Marine Max buildings appeared to be in good condition, and no major staining was noted during the site visit, with the exception of staining noted near an outdoor chemical storage area located on the west side of Building P-113 on the 1363 Embarcadero property.

A chain link fence located on the northern side of the 1441 Embarcadero property prevents unauthorized access to the property. The property is vacant and unused, and no structures are located on-site. Portions of the property are covered with asphalt that appeared to be deteriorated, and no major staining was noted on the surfaces of the 1441 Embarcadero property during the site visit.

Although the detection of noise and odors is dependent on the weather conditions and ongoing operations at the time of the site visit, strong odors or excessive noise were not noted at the Site.

3. Hydrogeological Setting

Based on a review of the Oakland East and Oakland West USGS topographic maps, ground elevation at the Site is approximately 10 feet above mean sea level. The topography of the Site is generally flat. The nearest surface water is the Brooklyn Basin, which is adjacent to the south side of the Site. Brooklyn Basin is part of the Oakland Inner Harbor, which is part of the San Francisco Bay. Storm water at the Site discharges

into storm drains located throughout the paved parking areas on the Site. It is likely that these storm drains discharge to Brooklyn Basin.

Ms. Rounds and Mr. Boost were not aware of the depth to groundwater in the vicinity of the Site. Based on the results of a recent investigation conducted in August 2001, depth to groundwater beneath the 1275 Embarcadero property is between five and nine feet below grounds surface (bgs) (Iris-Cambria 2001). The most recent groundwater elevations measurements collected from the six wells formerly located on the 1441 Embarcadero property in March 1997 indicate that groundwater was present between three and seven feet bgs on the eastern portion of the Site (Gauntlett 1997). Based on a review of the Oakland East and Oakland West USGS topographic maps, regional groundwater likely flows to the southwest toward Brooklyn Basin and the San Francisco Bay. However, the recent investigation on the 1275 Embarcadero property indicates that local groundwater flow beneath the western portion of the Site is to the northeast. Historical investigations on the eastern portion of the Site (1441 Embarcadero) indicate that groundwater flowed radially away from former well MW-4 and that the groundwater flow direction at the 1441 Embarcadero property has been variable and is likely strongly influenced by tides given the Site's proximity to the Bay (Gauntlett 1997).

Ms. Rounds and Mr. Boost were not aware of any water production wells on-site, and evidence of such was not observed during the site visit or found during the review of documents on file at the Port and local regulatory agencies.

B. Site History

Based on a review of documents on file at the Port of Oakland, development of the Site began in approximately 1913 with the filling of the 1441 Embarcadero property. The remainder of the Site was filled after 1913. The following is a summary of the history of each of the Site addresses based on a review of records on file at the Port as well as permit information available at the Oakland Building Department (OBD).

1275 Embarcadero

Permits on file at the OBD indicate that Acme Pallet Company operated on the 1275 Embarcadero property between 1954 and 1960, and records on file at the Port indicate that Acme Pallet Company was a manufacturer of pallets, skids, and lumber products that operated on the

property between 1965 and 1969 (Port of Oakland 1994). A 1970 drawing on file at the OBD (Drawing BB-3132, which is included in Appendix B) shows that the Acme Pallet Company consisted of former Port Building P-105, several small wood frame sheds, an underground steel gasoline storage tank and pump, and an incinerator. In 1970, Building P-105 and the storage sheds were demolished, and the underground storage tank (UST), gasoline pump, and incinerator were removed from the 1275 Embarcadero property (Port of Oakland 1994). In 1973, construction of a restaurant building began at the 1275 Embarcadero property, and Barclay Jack's Restaurant opened in 1974. The restaurant was later operated as a Hungry Hunter franchise, which discontinued operations in 1996. The 1275 Embarcadero property has been unused since 1996.

1285 Embarcadero

The 1285 Embarcadero property was occupied by Edwards Heat Treating, a custom heat treater of metals that used an electrical transformer and potentially other high voltage equipment, between 1956 and 1974 (Port of Oakland 1993). Permit information on file at the OBD indicates that East Bay Boat Works, Inc. occupied the 1285 Embarcadero property in 1975 and that BMW Marine Power, Inc. occupied the property between 1980 and 1983. An ACHCSA Facility Questionnaire on file at the OFD indicates that a BMW dealership occupied the building prior to 1987 when Summit Marine began operating a boat sales and minor boat servicing operation. An ACHCSA Inspection Form dated September 1991, which is on file at the OFD, indicates that Harrison's Sea Ray used the on-site building as a motorboat showroom. According to Mr. Boost, Harrison's Marine and SeaRay merged in 1998 to create Marine Max, which is a nationwide business. According to Mr. Boost, Marine Max has operated a boat sales showroom on the property since 1986.

1311 Embarcadero

Records on file at the OBD indicate that Chrysler Boats/Outboard Motors operated on the 1311 Embarcadero property in 1967 and that Standard Oil Company operated on the property in 1972. Records on file at the Port of Oakland Legal Department indicate that the Port issued a lease to Empire Sailing in April 1983 for Building P-108 at 1301 Embarcadero, which currently uses the 1311 Embarcadero address. Legal Department files also indicate that Harrison's occupied Building P-108 at 1311 Embarcadero between May 1983 and April 1989. The building located

on the property was used as a Marine Max boat showroom and the Gangplank Restaurant in 1993 (Port of Oakland 1993) and is currently used by Marine Max for boat storage.

1363 Embarcadero

Records on file at the OBD indicate that Baycraft Boats Limited operated on the 1363 Embarcadero property in 1948, Dusty Rhodes conducted boat sales and service on the property in 1958, Steve's Marine conducted marine sales between 1972 and 1979, and Bell Marine operated at the property in 1983. Records on file at the Port of Oakland Legal Department indicate that the lease for four buildings located on the 1363 Embarcadero property (P-104, P-113, P-114, and P-115W) was assigned to Harrison's Boat Center from Empire Sailing in August 1985. Building P-115W has since been removed from the 1363 Embarcadero property. A September 1990 ACHCSA Inspection Form indicates that Majestic Yachts conducted a used yacht sales operation at the 1363 Embarcadero property, and that Majestic Yachts was doing business at the property in 1987 as Bell Marine. A September 1991 ACHCSA Inspection Form indicates that Marine Performance and Engineering operated a marine engine servicing operation at 1363 Embarcadero beginning in November 1990. In 1993, the main building on the 1363 Embarcadero property (P-104) was used by Harrison's Marine Centers for storage of files and miscellaneous materials (Port of Oakland 1993). In 1993, Building P-114 was occupied by Majestic Yachts, which conducted a repair and servicing operation in the building (Port of Oakland 1993). A 2,000-gallon inactive UST was located near Building P-114 in 1993 (Port of Oakland 1993). The UST was removed from the 1363 Embarcadero property in October 1994 (Alisto 1994). A 1998 Hazardous Materials Business Plan for Harrison's Boat Center indicates that the main building on the property (P-104) was used as an office and service shop, that Building P-113 was used as an office, and that Building P-114 was used as a service shop. Currently, Marine Max operates retail sales and boat repair operations in the main building (P-104). The two smaller buildings (P-113 and P-114) are currently used by Marine Max for equipment storage.

1441 Embarcadero

Prior to 1913, the 1441 Embarcadero property consisted mostly of soft mud where a creek had emptied into the Oakland Inner Harbor. With permission from the Oakland City Council, Crowley Marine Services (Crowley) deposited approximately 36,000 cubic yards of fill, which consisted of mud from the bottom of the Oakland Inner Harbor covered with rock and gravel, to

cover the entire property. Crowley operated a boat repair and marine railway facility (Pacific Dry Dock and Repair Company) on the 1441 Embarcadero property between approximately 1911 and 1991 (ACHCSA 1999a). The primary activity conducted at the 1441 Embarcadero property was the repair and renovation of boats and sea-going vessels. Two marine railways, machine and carpentry shops, warehouses, and support offices were operated at the 1441 Embarcadero property (ACHCSA 1999a). Barnacles, rust, paint, and other debris were removed from the hulls of vessels using high-pressure streams of water or sandblasting. Most of the grit and detritus was collected from the railway platform that the vessels rested on during cleaning operations. However, some grit accumulated in the estuary and inter-tidal zone (RWQCB 1996). Although operations were discontinued in 1991, during an investigation of the 1441 Embarcadero property conducted in 1996, the two marine railways, a docking area, piers, and several buildings, including a machine shop, gear house, and paint shop, and concrete building foundations remained on-site (Geomatrix 1997a).

Historical aerial photographs, historical fire insurance maps, historical topographic maps, city directories, and permits on file at the Oakland Building Department were reviewed to confirm historical uses of the Site and identify uses of the surrounding area. Copies of the historical aerial photographs, historical fire insurance maps, historical topographic maps, and city directories are included in Appendix B. The following is a summary of the information found in these historical sources.

The earliest source of historical information, a 1903 Sanborn map, indicates that the Site was part of the Oakland Harbor tide flats. The Site appears unchanged on the 1911 Sanborn map with the exception of a small wharf, which extends into the tide flats south of 14th Avenue. On the 1930 aerial photograph, the eastern side of the Site appears to have been filled, and three small buildings are located on the 1441 Embarcadero property. The western portion of the Site appears to be tidal flats or partially filled land. The eastern portion of the Site has been filled and a small office building and long, rectangular lumber shed were located on the 1285 and 1311 Embarcadero properties. A building located in the current location of P-104 is used for "boat works" with a machine shop, and two small buildings, which appear to be in the current location of Buildings P-113 and P-114, are used for storage. One additional small building located west of Buildings P-113 and P-114 is used for storage. The Pacific Dry Dock & Repair Company (PDDRC) shipyard is evident east of Buildings P-104, P-113, and P-114. The shipyard consists of a storage yard, three storage buildings, a planing mill, a pipe shop building, a machine shop

building, a warehouse, and a building housing a tool room. A crane track is located adjacent to a small inlet, and two areas labeled as "marine ways," which were the dry dock areas, are located east of the inlet. The ship dry docks are evident on the 1950 aerial photograph. A storage building, an office and storage building, and two ways warehouses are located adjacent to the marine ways. A notation on the Sanborn map indicates that the PDDRC facility had a "40-gallon chemical cart" and "numerous 2 ½ gallon chemicals," although the map did not indicate storage locations of these chemicals. The Site appears similar to the 1950 Sanborn map on the 1950 aerial photograph and 1949 topographic map.

No significant changes were noted on the 1952 Sanborn map. The small wharf that was located near the westernmost portion of the Site is no longer evident, and the office building located adjacent to the lumber shed has been removed and replaced by a smaller office building in the same location. The 1953 Sanborn map indicates that the lumber shed has been removed from the Site, and a small building that is labeled "oil warehouse" has been constructed on the PDDRC property. The PDDRC shipyard appears similar on the 1957 Sanborn map with the exception of the addition of four aboveground storage tanks (ASTs) located south of the two storage buildings on the westernmost portion of the PDDRC property (adjacent to the east side of current Building P-114). The Sanborn map indicates that the ASTs were steel oil holding tanks. The notation regarding the capacities of the ASTs appears to be 2,000 or 12,000 gallons each, although the notation on the Sanborn maps is not clear enough to determine the capacity. The 1957 Sanborn map also indicates that paint storage has been added to the "comp'r and ways" warehouse. The two small buildings located in the current location of P-113 and P-114 appear to have been replaced by two new buildings that are used for boat storage (P-113) and as a boat shop (P-114), and the third storage building that was formerly located in this area appears to have been removed. The Sanborn map indicates that the area to the west of these buildings is filled land that does not appear to be used. A boat sales and storage yard with a small office building, which is in the current location of Building P-110 or P-112, and an area used for boat storage is located west of the unused area. A building used for "heat treating," which appears to be current Building P-106, is located west of the boat sales and storage yard. Two small storage buildings, a small office building, a small lumber storage building, a 10-foot tall cooling tower, and an area or building labeled "sawing" are located west of the heat treating building. An area or building labeled "pallet nailing" is located west of this area, and scattered lumber piles are located on the westernmost portion of the Site.

The Site appears similar on the 1959 Sanborn map and 1959 aerial photograph. Four new buildings have been constructed in the area to the west of the PDDRC shipyard that was formerly unused. The four buildings consist of a building that houses boat sales and a restaurant (current Building P-108), an office building, a boat repair building, and an outboard motor repair building. No significant changes to the Site are evident on the 1960, 1964, 1965, 1967, and 1969 Sanborn maps and 1969 aerial photograph, with the exception of one additional building located on the PDDRC property, which is labeled "steel fabricating." The 1959, 1968, and 1973 topographic maps indicate that two buildings were located on the western portion of the Site, but do not show any details (such as buildings or other structures) on the eastern portion of the Site. Several additional small buildings are evident on the Site on the 1980 topographic map.

The 1979 aerial photograph indicates that three small buildings located south and southwest of Building P-108 have been removed from the Site. In addition, the buildings that were located to the west of Building P-106 that were used for sawing and pallet nailing have been removed and replaced by Building P-117. No significant changes to the PDDRC property are evident on the 1979 aerial photograph.

By 1998, all buildings and structures on the PDDRC property had been removed, and the property appeared to be vacant with a graded ground surface on the 1998 aerial photograph. No buildings were evident on the Site east of P-104. The remainder of the Site buildings appear as they are currently.

The city directories provide the names of residents or businesses, which operated from each Site address during the period 1972 to 1997. The names of the residents or businesses at each address are summarized in Table 1. As shown in Table 1, businesses that operated at the Site during this time period are primarily marine-related (e.g., Bayliner Boats, SeaRay, Seahorse Yacht Sales, Steve's Marine, Inc.). In addition, several individuals are listed at several of the addresses. It is not known whether these were residents or contact people at various businesses at the Site.

C. Description of Operations

No operations are currently conducted on the 1275 and 1441 Embarcadero properties. Marine Max conducts boat sales and service operations in the buildings located at 1285, 1311, and 1363 Embarcadero. A description of operations at each of the Site properties is provided below.

1275 Embarcadero (Port Building P-117)

A building that was formerly operated as a restaurant is located on the 1275 Embarcadero property. The building is currently unused, and no operations are conducted in the building. The parking lot surrounding the building was being used by the construction company working on the adjacent Homewood Suites property for storage of containers used to store construction equipment. At the time of the site visit, seven storage containers were located on the north and east sides of the building. The interiors of the storage containers were not inspected during this assessment. No evidence of staining was evident around the bases of the containers at the time of the site visit.

1285 Embarcadero (Port Building P-106)

Marine Max operates a boat sales showroom in the building located at 1285 Embarcadero. The building is used to display motorboats. Several offices are located on the southern side of the building, and a small kitchen area is located on the northern side of the building. According to Mr. Boost, no chemicals or other hazardous materials are stored in the building.

1311 Embarcadero (Port Building P-108)

Marine Max uses the building located at 1311 Embarcadero for storage of motorboats, boat racks, and boat covers. A second story mezzanine level is used for office space. According to Mr. Boost, no other operations are conducted in the building.

1363 Embarcadero (Port Buildings P-104, P-113, and P-114)

Marine Max conducts operations in three buildings located on the 1363 Embarcadero property. The northern end of Building P-104 is used as a retail sales room for boating supplies, including gear lubricant, motor oil, steering fluid, and engine oil, which are sold in one-gallon or smaller containers. Several offices are also located in the building. The southern end of Building P-104 is used for boat servicing. According to Mr. Boost, repair services conducted in the building range from tune-ups to engine rebuilds. Boats are also serviced on the water in slips located in Brooklyn Basin. The two smaller buildings, P-113 and P-114, are primarily used for equipment storage. Building P-113 is used for

storage of boat parts and decorations, and Building P-114 is used for upholstery repairs and storage.

1441 Embarcadero

No operations are currently conducted at the 1441 Embarcadero property. The property is vacant and unused, and a chain link fence prevents unauthorized access to the property.

D. Polychlorinated Biphenyls (PCBs)

Ms. Rounds and Mr. Boost were not aware of any PCB-containing equipment on-site. Two pad-mounted transformers were observed on-site during the site visit. One transformer was located on the north side of the 1275 Embarcadero building adjacent to the street, and the other transformer was located on the south side of the 1311 Embarcadero building in the paved parking area. No signs of leakage or staining was noted on the concrete pads beneath the transformers. Based on the dates of construction of several of the on-site buildings, it is possible that PCBs may be present in light ballasts in the buildings.

E. Hazardous Materials Use and Storage

1. Hazardous Materials Use

Hazardous materials use at the Site is currently limited to the 1363 Embarcadero property and includes chemicals used in boat repair operations, such as engine oil, antifreeze, and solvent. Chemicals are stored in 55-gallon drums or smaller containers as discussed in the following sections.

Based on a review of documents on file at the Port of Oakland and Oakland Fire Department, additional hazardous materials have historically been used and stored on-site at the 1441 Embarcadero property including solvents, paints, thinners, oils, gasoline, and diesel fuel. Some information regarding quantities of these chemicals formerly used and stored on-site was found in the documents reviewed and is discussed in the following sections.

2. Underground Storage Tanks (USTs)

Ms. Rounds and Mr. Boost were not aware of any current or former USTs or sumps at the Site, and no evidence of such was observed during the site visits. Based on a review of documents on file at the Port, one UST was formerly located at 1275 Embarcadero, one UST was formerly located at 1363 Embarcadero, and two USTs were formerly located at 1441 Embarcadero.

The UST located at 1275 Embarcadero was a steel gasoline UST of unknown capacity that was reportedly removed from the 1275 Embarcadero property in 1970. No information regarding sample collection at the time of tank removal was found during this assessment.

The UST located at 1363 Embarcadero was a single-wall, tar-covered steel 2,000-gallon leaded gasoline UST that was installed in 1979 and removed from the 1363 Embarcadero property in October 1994. Soil and groundwater samples were collected from the UST excavation, as discussed in the soil and groundwater section of this report.

A 400-gallon UST was removed from the northwest portion of the 1441 Embarcadero property in September 1991, and a 500-gallon UST was removed from the northeastern corner of the 1441 Embarcadero property in February 1994. Soil and groundwater samples were collected from both UST excavations, as discussed in the soil and groundwater section of this report.

The 1441 Embarcadero property was identified on the leaking underground storage tank (LUST) database, and the 1441 Embarcadero and 1363 Embarcadero properties were listed on the UST database reviewed by VISTA, which is further discussed in the records review section of this report.

3. Aboveground Storage Tanks

No aboveground storage tanks (ASTs) are currently used on-site. One approximately 100-gallon AST is located on the west side of Building P-113 at 1363 Embarcadero. According to Mr. Boost, the AST is currently empty and unused but was formerly used to store waste oil.

Based on a review of documents on file at the Port of Oakland, historical aerial photographs, and fire insurance maps, several ASTs were formerly located on the 1441 Embarcadero property. Four large ASTs are evident on aerial photographs and fire insurance maps dated 1957 through 1979. The fire insurance maps indicate that the ASTs each had capacities of 2,000 or 12,000 gallons, although the notation regarding the capacities of the ASTs is not clear enough to determine the capacity. Documents on file at the Port of Oakland (Geomatrix 1997a) indicate that the ASTs were used for storage of diesel fuel. An ACHCSA Inspection Report from May 1986 on file at the Oakland Fire Department indicates that four slop oil tanks with capacities of "20,000 each" were located on the 1441 Embarcadero property. No additional information regarding these ASTs was found during this assessment.

4. Drum and Small Containers

At the time of the site visit, approximately eight 55-gallon drums and numerous other smaller containers were stored on-site. The 55-gallon drums were stored outdoors on secondary containment skids on the west side of the main building located at 1363 Embarcadero. Four drums were used to store new engine oil, three were used to store waste oil, and one was used to store used antifreeze. One approximately 40-gallon portable fuel tank was also stored in this area. Minor staining was noted on the concrete ground surface in the vicinity of these drums.

A parts washer used to store approximately 20 gallons of solvent was stored inside the repair shop (Building P-104) at 1363 Embarcadero. Other chemicals stored in one gallon or smaller containers inside the repair shop and retail store at 1363 Embarcadero include antifreeze, transmission fluid, carburetor cleaner, motor oil, gear lubricant, and steering fluid. In addition, portable propane cylinders, which are used to fuel a forklift, are stored in the building. One gallon or smaller containers of paint, methyl ethyl ketone, and acetone were stored in Building P-114 at 1363 Embarcadero. Some old staining was noted on the concrete floors in Buildings P-113 and P-114 on the 1363 Embarcadero property at the time of the site visit.

Approximately ten 5-gallon containers of a biodegradable boat cleaner were stored in a small storage shed located on the east side of the building located at 1311

Embarcadero. No other chemicals were used or stored in the building located at 1311 Embarcadero.

F. Nonhazardous and Hazardous Waste

1. Nonhazardous Waste

Nonhazardous solid waste currently generated at the Site includes office waste generated during operations at the Marine Max facility. Nonhazardous waste generated at the facility is placed in a dumpster located on the west side of Building P-104 located at 1363 Embarcadero. According to Mr. Boost, Waste Management empties the dumpster on a weekly basis.

2. Hazardous Waste

According to Mr. Boost, hazardous wastes currently generated at the Site during Marine Max's operations include used oil, used antifreeze, used solvent, and used batteries. Used oil and used antifreeze are stored in 55-gallon drums located on the west side of Building P-113 at 1363 Embarcadero. According to Mr. Boost, Marine Max generates approximately 660 gallons of used oil and less than 120 gallons of used antifreeze annually. Used oil and used antifreeze are hauled off-site for recycling by AES of Oakland, California three to four times a year. Safety Kleen services the parts washer on a regular basis under a service contract with Marine Max. Used batteries are hauled off-site by Battery Bill of Oakland, California, the company that supplies new batteries to the facility.

G. Air Emissions

There were no obvious air emissions at the Site at the time of the site visit. Ms. Rounds and Mr. Boost were not aware of any current or former sources of air emissions at the Site. No additional information regarding air emissions from former owner operations was found during this assessment.

H. Wastewater

1. Industrial and Sanitary Wastewater

According to Ms. Rounds, wastewater is not currently generated at the 1275 Embarcadero building, although the building is connected to the sanitary sewer. According to Mr. Boost, the Marine Max buildings at 1285, 1311, and 1363 Embarcadero are connected to the sanitary sewer. Wastewater generated during Marine Max's operations includes wash water generated during boat cleaning operations. During the site visit, boats were being cleaned using a biodegradable cleaner and water in an area located east of the 1311 Embarcadero building. The wash water was discharging directly to a storm drain located near the cleaning operation.

Ms. Rounds and Mr. Boost were not aware of any former septic systems located on-site, and no records of septic systems were found during this assessment.

2. Storm Water

Storm water runoff at the Site discharges into storm drains located throughout the paved parking and boat storage areas on the Site. No potential storm water contamination sources were observed at the Site during the site visit.

Based on a review of records on file at the Port of Oakland and at the Oakland Fire Department, wastewater and storm water discharges resulting from activities at the Pacific Dry Dock and Repair Company facility at 1441 Embarcadero were permitted under a National Pollutant Discharge Elimination System (NPDES) permit, which expired in March 1996 (RWQCB 1996). Regional Water Quality Control Board (RWQCB) inspections conducted in 1987, 1988, and 1990 identified evidence of storm runoff washing spent sandblast grit into waters of the State. The RWQCB issued notices of violation related to discharge prohibitions and receiving water limitations in the permits (RWQCB 1996). In March 1996, Crowley submitted a Notice of Intent (NOI) to comply with the Statewide General NPDES Storm Water Permit for Industrial Activities, as required by the RWQCB (Crowley 1996). The RWQCB requested that spent sandblast grit located on the surface in the inter-tidal and sub-tidal zones be removed to assure that storm water would not transport constituents of the spent sandblast materials into the estuary and to address past NPDES permit violations. Crowley submitted a work plan to

address cleanup of grit materials to the RWQCB (Crowley 1996), and the RWQCB incorporated the work plan into a Cleanup and Abatement Order (Order No. 96-111) to ensure completion of the tasks. The RWQCB stated that implementation of the work plan would adequately address past permit violations, and qualify Crowley to withdraw its NOI based on the fact that the facility was no longer in operation and the source for any potential impact from storm water will have been removed once the work plan was implemented. Crowley's grit cleanup operations are discussed in the following section in the 1441 Embarcadero section.

I. On-site Soil and Groundwater Contamination

During the site visit, minor oil staining was noted at the 1363 Embarcadero property. Staining was noted in the repair area of the main building and on the concrete floors in the two smaller buildings. Staining was also noted on the concrete ground surface in the storage area located west of Building P-113 where 55-gallon drums of hazardous materials and hazardous waste were stored. According to Ms. Rounds and Mr. Boost, no major spills or releases of hazardous materials have occurred at the Site. Based on a review of documents on file at the Port of Oakland and Oakland Fire Department, several previous investigations have been conducted at the 1275, 1363, and 1441 Embarcadero properties. In addition, Baseline Environmental Consulting (Baseline) has conducted an investigation of the entire Embarcadero Cove property (1275-1441 Embarcadero). The results of these investigations are discussed below by address.

1275 Embarcadero

A 1970 drawing (BB-3132, included in Appendix B), which was on file at the Oakland Building Department, shows that an underground steel gasoline tank and pump were formerly located on the 1275 Embarcadero property near the northeastern corner of the current on-site restaurant building. Details regarding the installation date, construction, and contents of the UST were not found during this assessment. The UST and pump were reportedly removed from the 1275 Embarcadero property in 1970 (Port of Oakland 1994). No information regarding the removal of this tank or any investigations conducted at the 1275 Embarcadero property during removal of the tank were found during this assessment.

Previous investigations conducted on the 1275 Embarcadero property include soil and groundwater investigations conducted by Baseline Environmental Consulting (Baseline) in May 2001 and Iris-Cambria Environmental (Iris-Cambria) in August 2001 at the request of the Port of Oakland. Baseline's investigation consisted of the collection of soil and grab groundwater samples from source-specific locations and soil samples from random locations (Baseline 2001). Two of the source-specific locations (SB-1 and SB-2) were located on the 1275 Embarcadero property (see Baseline Figure 2 in Appendix C). Due to petroleum odors noted during drilling of these two borings, three additional samples (SB-1A, SB-1B, and SB-2C) were collected in the vicinity of SB-1 and SB-2. Four random samples (RN-A-1, RN-A-2, RN-A-3, and RN-A-4) were also collected from the 1275 Embarcadero property. Total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in soil and groundwater samples collected from the 1275 Embarcadero property at the concentrations shown in Baseline Tables 2 and 10 (included in Appendix C), respectively. Baseline recommended that the extent and magnitude of affected soil and groundwater near borings SB-1 and SB-1A be evaluated by installation of groundwater monitoring wells and collection of additional soil samples.

Iris-Cambria's investigation was conducted to characterize soil and groundwater conditions at the 1275 Embarcadero property to support redevelopment activities and determine the necessary steps to obtain a No Further Action letter from the ACHCSA regarding chemicals in the subsurface (Iris-Cambria 2002). Iris-Cambria collected soil and groundwater samples from five boring locations in August 2001 (SB-A, SB-B, SB-D, SB-E, and SB-F; see Iris-Cambria Figure 2 in Appendix D). TPH as gasoline, TPH as diesel, TPH as motor oil, benzene, toluene, and xylenes were detected in soils at the concentrations shown in Iris-Cambria Tables 1 and 2 in Appendix D. TPH as gasoline, TPH as diesel, TPH as motor oil, benzene, ethylbenzene, and xylenes, and three semivolatile organic compounds (SVOCs) were detected in groundwater at the concentrations shown in Iris-Cambria Tables 5 and 6 in Appendix D.

Based on the results of the August 2001 sampling event, Iris-Cambria installed four groundwater monitoring wells (MW-1 through MW-4) on-site at the locations shown on Iris-Cambria Figure 2 in Appendix D. Soil samples were collected from each boring, and groundwater samples were collected from the wells during three sampling events. TPH as gasoline, TPH as diesel, TPH as motor oil, BTEX, naphthalene, and several additional volatile organic compounds (VOCs) were detected in the soil samples at the concentrations shown in Iris-

Cambria Tables 1, 2, and 3 in Appendix D, and TPH as gasoline, TPH as diesel, TPH as motor oil, BTEX, and several SVOCs were detected in groundwater at the concentrations shown in Iris-Cambria Tables 5 and 6 in Appendix D. Iris-Cambria concluded that historical operations in the former UST location are the source of TPH as gasoline and BTEX detected at the 1275 Embarcadero property. Iris-Cambria also concluded that the extent of chemicals in groundwater is generally well defined.

Iris-Cambria's investigation also included a risk-based screening level (RBSL) evaluation to assess whether chemicals detected in soil and groundwater could pose a risk to human health or the environment (Iris-Cambria 2002). Iris-Cambria concluded that the concentrations of chemicals detected in soil and groundwater are below relevant health-based RBSLs for future on-site commercial workers and would not be expected to pose a significant health risk to future commercial workers. Iris-Cambria also concluded that chemicals detected in soil are below health-based RBSLs for construction workers and urban-area terrestrial RBSLs. Chemical concentrations detected in soil and groundwater were above RBSLs developed for the protection of aquatic life, however, the detections occurred greater than 100 feet north of the San Francisco Bay and do not appear to be adversely impacting aquatic receptors. Iris-Cambria proposed installation of one additional groundwater monitoring well in the northeastern corner of the 1275 Embarcadero property and continued groundwater monitoring through June 2002 followed by a request to the ACHCSA and RWQCB for formal case closure.

1285 Embarcadero

A previous Phase I ESA of the Harrison's Marine Center facility conducted by Port of Oakland personnel indicates that a representative of Harrison's Marine Centers stated that hollow areas exist beneath the current concrete floor (Port of Oakland 1993). The Port document indicates that these areas may represent current or former locations of sumps.

Baseline conducted a soil and groundwater investigation of the Embarcadero Cove area in May 2001, which included the collection of soil and groundwater samples from the 1285 Embarcadero property (Baseline 2001). Two source specific boring locations, SB-3 and SB-4, and four random boring locations, RN-B-1, RN-B-2, RN-B-3, and RN-B-4, were sampled (see Baseline Figure 2 in Appendix C). The source specific locations were chosen to investigate the former locations of a cooling tower (SB-3) and possible cavity (i.e., current or former sump identified in the previous Phase I ESA [SB-4]) beneath the floor within the building located on

the 1285 Embarcadero property. The Baseline report indicates that a metal plate was reported to be located under the concrete floor and that a subsurface cavity was identified by a Baseline geologist. The Baseline report suggests that the subsurface structure may have been a resin tank for coating fiberglass rolls used for boat repairs. Several chlorinated solvents were detected in the groundwater sample collected from boring SB-4 at the concentrations shown in Baseline Table 10, which is included in Appendix C. No other chemicals were detected in the groundwater or soil samples from this location. The Baseline report recommends the installation of a groundwater monitoring well in a downgradient location from the 1285 Embarcadero building to assess the quality of groundwater near the possible resin tank. No additional information regarding soil or groundwater investigations conducted at the 1285 Embarcadero property was found during this assessment.

1311 Embarcadero

Baseline conducted a soil and groundwater investigation of the Embarcadero Cove area in May 2001, which included the collection of four soil samples from random locations on the 1311 Embarcadero property (Baseline 2001; see Baseline Figure 2 in Appendix C). Because no areas of concern had been identified during previous assessments of the 1311 Embarcadero property, no source specific locations were sampled by Baseline. The four soil samples (RN-C-1 through RN-C-4) were composited and analyzed for VOCs, SVOCs, TPH, metals, and PCBs, none of which were detected at concentrations that warranted additional investigation, according to Baseline. The detected concentrations are shown in the Baseline tables included in Appendix C.

1363 Embarcadero

A previous Phase I ESA prepared by the Port of Oakland identified a 2,000-gallon inactive UST near Building P-114 on the 1363 Embarcadero property (Port of Oakland 1993), as well as stained concrete located outside the building in an area of hazardous materials storage (i.e., used oil filters, batteries, and fuel containers). The UST was removed from the 1363 Embarcadero property on October 26, 1994 (Alisto Engineering Group 1994; see Alisto Figure 2 in Appendix E). A one-quarter inch hole was noted on the top end of the UST at the time of removal. Groundwater was observed in the tank cavity at approximately four feet bgs. Two soil samples (S-1 and S-2) were collected from the excavation sidewalls, and one groundwater sample (TP1) was collected from the ponded groundwater. Soil samples were not collected from

the base of the excavation due to the presence of groundwater in the excavation. The soil and groundwater samples were analyzed for TPH as gasoline, BTEX, and total lead. Tables 1 and 2 from the Alisto report, which are included in Appendix E, show the results of the soil and groundwater sample analyses. Due to the concentration of total lead detected in sample S-2, 280 milligrams per kilogram (mg/kg), additional soil was excavated and a third sample (S-3) was collected from the sidewall of the additional excavation and analyzed for total lead. Total lead was detected at a concentration of 35 mg/kg in sample S-3. TPH as gasoline, BTEX, and total lead were detected in the groundwater sample at the concentrations shown in Table 2 in Appendix E. Records on file at the Port of Oakland Legal Department indicate that a total of approximately 35 cubic yards of soil were excavated. On November 8, 1994, approximately 2,000 gallons of groundwater were pumped from the tank cavity, and a second groundwater sample (TP2) was collected. Sample TP2 was analyzed for total and dissolved lead, and neither analyte was detected in the groundwater sample. Based on the results of the sample collection and analyses, Alisto Engineering Group recommended no additional subsurface investigation. The ACHCSA issued a No Further Action letter to the Port for the UST on January 20, 1995 (ACHCSA 1995; a copy of this letter is included in Appendix E).

Baseline's investigation of the Embarcadero Cove area in May 2001 included the collection of samples from one source-specific location and two random locations on the 1363 Embarcadero property (Baseline 2001; see Baseline Figure 2 in Appendix C). The source-specific location (SB-5) was chosen to assess the possibility of releases from maintenance buildings on the 1363 Embarcadero property. Soil and groundwater samples collected from this boring location did not contain detectable concentrations of VOCs or SVOCs (see Baseline tables included in Appendix C). Based on these results and the results of analyses of soil samples collected from the random locations (RN-D-1 and RN-D-2), which were analyzed for VOCs, SVOCs, TPH, metals, and PCBs, Baseline did not recommend additional subsurface investigation at the 1363 Embarcadero property.

1441 Embarcadero

Investigations at the 1441 Embarcadero property began in 1989 and have been overseen by the ACHCSA and RWQCB. Numerous investigations were conducted between 1989 and 1997, which included the collection and analysis of soil, groundwater, sediment, and seawater samples. A Site Assessment Report prepared by Versar Inc. (1996) provides a summary of the

investigations conducted at the 1441 Embarcadero property between December 1989 and February 1996. The 1441 Embarcadero property was initially divided into western and eastern sections, which were separated by the two marine drydocks, for investigations conducted between 1989 and 1993. In addition, investigation and remediation of sediment contamination at the property was conducted separately from soil and groundwater under the oversight of the RWQCB while soil and groundwater investigations were overseen by the ACHCSA. Investigations of soil and groundwater and sediment are discussed in the following sections.

It should be noted that the following discussion is based on a review of documents available for review at the Port of Oakland. A request for documents identified based on a review of bibliographies in several key documents was submitted to the Port, which reported that the majority of the documents were available but that several were not. The documents relied upon for the following discussion are included in the references section at the end of this report.

Soil and Groundwater Investigations and Remediation

Initial Investigations: Western Section

Initial investigations conducted in December 1989 and January 1990 on the western section of the 1441 Embarcadero property identified TPH, VOCs, SVOCs, and metals in soil and sediment. ACHCSA reviewed the results of the initial investigations presented in Versar's 1990 Site Assessment report (Versar 1990; not available for review during this assessment) and issued a Notice of Violation (NOV; ACHCSA 1991) to Crowley in April 1991. The NOV indicated that significant concentrations of TPH, SVOCs, and metals were detected in soil, which constituted an unauthorized disposal of hazardous materials. The ACHCSA requested that the extent of contamination be determined and remediated.

As discussed in the UST section of this report, a 400-gallon unleaded gasoline UST was removed from the northwestern portion of the property on September 24, 1991 (ACHCSA 2000c). The location of the former UST is shown on Versar Figure 2 in Appendix F. Two soil samples collected from the UST excavation contained a maximum concentration of 130 parts per million (ppm) TPH as gasoline, as well as detectable concentrations of BTEX, as shown in Versar Table 1 in Appendix F (sample locations shown on Versar Figure 3 in Appendix F). A grab groundwater sample collected from groundwater that ponded in the excavation contained 34,000 milligrams per liter (mg/L) TPH as gasoline, as well as detectable concentrations of

BTEX, as shown in Versar Table 1 in Appendix F (ACHCSA 2000d). The TPH as gasoline concentration indicated that free product was collected in the groundwater sample (ACHCSA 2000d).

Subsequent to removal of the UST, Crowley determined that the entire 1441 Embarcadero property required investigation due to past site activities and surface staining. A site-wide investigation conducted between October 1991 and January 1992 included collection of samples from 48 boring locations, including five boring locations near the former 400-gallon UST. TPH as gasoline, diesel and oil and grease and BTEX were detected in the samples near the UST (Versar 1996).

Versar prepared a Phase II Site Investigation Work Plan for the 1441 Embarcadero property (Versar 1992a) and an addendum to the Phase II Site Investigation Work Plan (Versar 1992b), which documented additional investigation activities, plans for immediate source removal, and installation of five groundwater monitoring wells. The addendum indicates that four areas of identified soil contamination in the western section of the 1441 Embarcadero property (shown on Versar Figure 4 in Appendix F) were to be excavated and treated via on-site thermal treatment. The planned excavation was intended to remove soils exceeding limits for BTEX and TPH approved in a letter from the ACHCSA (ACHCSA 1992; a copy of the ACHCSA letter is included in Appendix F). Versar estimated that approximately 3,500 cubic yards of soil would be excavated, treated on-site, and reused as backfill on-site. No additional information regarding excavation activities on the western portion of the 1441 Embarcadero property was found during this assessment.

As indicated in the Phase II Site Investigation Work Plan and Addendum (Versar 1992a; Versar 1992b), five groundwater monitoring wells (MW-1 through MW-5) were installed on the western section of the 1441 Embarcadero property in June 1993, as shown on Versar Figure 2 in Appendix F (Versar 1996). Well MW-1 was located within ten feet of the former 400-gallon UST location. Two soil samples collected from the boring for MW-1 contained detectable concentrations of TPH as gasoline, diesel, and oil and grease, and BTEX, as shown in Versar Table 4 in Appendix F. Quarterly sampling of the groundwater monitoring wells began in June 1993 and continued through the third quarter of 1995. Two additional rounds of groundwater monitoring well sampling were conducted in the first quarter of 1996 and 1997. Results of the quarterly groundwater monitoring are shown in Gauntlett Table 4 in Appendix F.

Initial Investigations: Eastern Section

Initial investigations conducted on the eastern portion of the 1441 Embarcadero property in December 1989 and January 1990 identified TPH and metals in soil. Additional investigations conducted in August 1992 included collection of soil and groundwater samples, which also indicated that TPH and lead were present in soil in the eastern portion of the property.

As discussed in the UST section of this report, a 500-gallon UST (contents unknown) was removed from the northeastern corner of the property on February 17, 1994 (ACHCSA 2000c). The location of the former UST is shown on Versar Figure 2 in Appendix F. Three soil samples were collected from the 500-gallon UST excavation (locations shown on Versar Figure 7 in Appendix F), and TPH as gasoline and diesel and toluene and xylenes were detected at relatively low concentrations, as shown in Versar Table 5 (see Appendix F). A grab groundwater sample collected from the base of the excavation contained detectable concentrations of TPH as gasoline and diesel and BTEX, as shown in Versar Table 6 (see Appendix F).

The results of the August 1992 investigation on the eastern portion of the 1441 Embarcadero property indicated that two boring locations (borings BH18E and BH32E at five feet bgs) yielded soil samples with lead concentrations that exceeded the total threshold limit concentration (TTLC; 1,000 mg/kg) or soluble threshold limit concentration (STLC; 5.0 mg/kg) for lead, which are used when determining the hazardous waste characterization under California State regulations. In June and July 1995, Versar removed approximately 40 tons of soil from the two locations (Versar 1996; see Versar Figure 2 in Appendix F). Twenty tons of soil were initially removed in June 1995, and five confirmation soil samples were collected from each location. Lead concentrations in the confirmation samples collected from both locations were above the TTLC or STLC, and an additional 20 tons of soil were excavated. The five confirmation samples collected after removal of the additional soil indicated that lead concentrations exceeding the TTLC or STLC were present. Versar proposed the collection of additional soil samples and installation of a groundwater monitoring well to assess the extent of lead impacted soil and to assess groundwater conditions near the removed UST. The additional work was approved by the ACHCSA and eight soil borings and a groundwater monitoring well (MW-6; see Versar Figure 2 in Appendix F) were installed in February 1996 (Versar 1996). The maximum lead concentration detected in soil was 4,100 mg/kg. The analytical results of the groundwater samples collected from MW-6 are presented in Gauntlett Table 4 in Appendix F.

ACHCSA LOP and SLIC Case Closure: 1441 Embarcadero

The ACHCSA oversaw the initial soil and groundwater investigation activities at the 1441 Embarcadero property discussed above under the Local Oversight Program (LOP) and Spills, Leaks, and Investigation Cleanup (SLIC) program. The LOP case related to the investigation of releases from the two former USTs at the 1441 Embarcadero property, and the SLIC case encompassed all other investigation and remediation activities at the 1441 Embarcadero property. The LOP and SLIC cases were both closed by the ACHCSA, as discussed below.

A January 1997 letter from the ACHCSA to Crowley indicates that the ACHCSA reviewed a Site Assessment Report (Versar 1996), which summarized the previous investigations conducted on both the western and eastern sections of the 1441 Embarcadero property (ACHCSA 1997). The ACHCSA requested that Crowley conduct sampling of the on-site groundwater monitoring wells on a revised semi-annual sampling schedule with the next event to occur in the first quarter of 1997 (ACHCSA 1997). The ACHCSA letter states that "after documentation of the 1st quarter 1997 groundwater monitoring and sampling report, this site file will be reviewed to determine whether it warrants closure as a 'Low-Risk Groundwater Case'" under the LOP. The ACHCSA letter also states that once the LOP portion of the case is closed, the 1441 Embarcadero property will be regulated by the ACHCSA under the SLIC program, due to confirmed lead contamination in soil. The ACHCSA letter indicates that "in order to obtain SLIC closure, additional lead-contaminated soils need to be removed in the BH-18 and BH-32 areas." No documentation relating to additional excavation of lead-impacted soil in the vicinity of soil borings BH-18 and BH-32 was found during the Iris Environmental Phase I ESA. However, as discussed below, the SLIC case was closed in June 1999, and the LOP case was closed in January 2000.

A risk assessment for the 1441 Embarcadero property was prepared by Risk-Based Decisions in 1996 and submitted to the ACHCSA (Risk-Based Decisions 1997; the risk assessment was not available for review during the Iris Environmental Phase I ESA). The ACHCSA reviewed the risk assessment and requested that an additional investigation be conducted. The ACHCSA also requested that Crowley conduct an additional groundwater sampling event in the first quarter of 1997. Crowley's consultant, The Gauntlett Group, collected groundwater samples from the six on-site groundwater monitoring wells in March 1997 (Gauntlett 1997). The samples were analyzed for TPH as gasoline, TPH as diesel, BTEX, and

filtered lead. The results of the groundwater sample analyses are shown in Gauntlett Table 4 in Appendix F. This table also includes all data collected from the groundwater monitoring wells since the first groundwater monitoring event in July 1993.

Geomatrix conducted a "preliminary assessment" of the environmental conditions at the 1441 Embarcadero property in April 1997 (Geomatrix 1997a; the report was prepared for Washburn, Briscoe & McCarthy, who were acting on behalf of the Port of Oakland). Geomatrix compiled summary tables and figures showing the results of the soil and groundwater sampling events conducted between December 1989 and February 1996. These tables (Tables 4-6) and figures (Figures 4-15) are included in Appendix F. Based on a review of the soil and groundwater data, Geomatrix recommended that additional soil and groundwater sampling be conducted at the 1441 Embarcadero property. In a letter dated April 10, 1997 submitted to the ACHCSA and RWQCB (Port of Oakland 1997), the Port of Oakland submitted a table and figure prepared by Geomatrix showing recommended additional soil and groundwater sampling and analysis at the 1441 Embarcadero property (see Geomatrix Table 3 in Appendix F of this report).

Based on a review of correspondence between the Port of Oakland, Crowley, and the ACHCSA, the Port of Oakland and Crowley discussed the scope of additional investigations to be conducted at the property, but could not agree on the scope. As a result, the consultants for both the Port (Geomatrix) and Crowley (Risk-Based Decisions) submitted work plans for additional investigation to the ACHCSA in late 1997 (Geomatrix 1997b; Risk-Based Decisions 1997). The ACHCSA approved the work plan submitted by Risk-Based Decisions with several modifications in a letter dated January 21, 1998 (ACHCSA 1998).

Risk-Based Decisions conducted an additional investigation at the property in early 1998 that consisted of the collection of soil samples from 23 locations and grab groundwater samples from four locations on the property (Risk-Based Decisions 1998). The soil and groundwater results were used to update the risk calculations presented in the original risk assessment submitted to the ACHCSA by Risk-Based Decisions in 1997. The results of the updated risk calculations indicated that the risks and hazard indices calculated for a commercial/industrial worker were well within the range of risks calculated in the original risk assessment and below regulatory levels of concern (1.0×10^{-5} for cancer risks and a hazard index of 1.0 for noncancer health effects). Risk-Based Decisions concluded that the "former Pacific Dry Dock Yard I Site constitutes a low risk soil and groundwater site based on the criteria set forth in the Water Board guidance," and Crowley made a request for regulatory closure from the ACHCSA.

The ACHCSA reviewed the updated risk calculations submitted by Risk-Based Decisions and requested that the risks be recalculated to include old and new sampling data and additional exposure pathways. Risk-Based Decisions recalculated the risks as requested and submitted the results to the ACHCSA in a letter report dated January 26, 1999 (Risk-Based Decisions 1999). The excess cancer risk calculated for an industrial worker was 5.15×10^{-6} , and the hazard index was 0.0056. Risk-Based Decisions stated that the excess cancer risk resulted entirely from the detection of PAHs in two soil samples and again requested site closure from the ACHCSA.

A letter from ACHCSA to Crowley dated December 1999 indicates that "the RWQCB has concurred with [the ACHCSA's] recommendation for site closure regarding the two former USTs at [Pacific Dry Dock, Yard I, 1441 Embarcadero]." The ACHCSA requested that Crowley properly abandon the six groundwater monitoring wells located on the 1441 Embarcadero property prior to issuance of formal ACHCSA site closure (ACHCSA 1999b). Five of the six groundwater monitoring wells that were located on the 1441 Embarcadero property were abandoned on December 2, 1999 under permit from the Alameda County Public Works Agency (Field Solutions, Inc. 2000). The sixth well was accidentally destroyed in December 1997 during removal of concrete pads and foundations at the 1441 Embarcadero property.

In 2000, the ACHCSA recommended closure of the LOP case for the 1441 Embarcadero property. The closure recommendation was based on the fact that the USTs had been removed from the 1441 Embarcadero property, the extensive site characterization, the results of long term groundwater monitoring, which indicated "very little impact" from UST releases, and the results of a human health risk assessment (HHRA) prepared for the entire 1441 Embarcadero property, which concluded that there were no unacceptable health risks. The ACHCSA issued closure of the LOP case in a Fuel Leak Site Case Closure letter (ACHCSA 2000a) and a Remedial Action Completion Certification (ACHCSA 2000b) issued on January 7, 2000, which confirmed the completion of the investigation and remedial action for the two former USTs at the 1441 Embarcadero property (copies of these letters are included in Appendix F). The Case Closure Letter also indicated that the following conditions exist at the 1441 Embarcadero property: 72 ppm TPH as diesel remain in soil and 440 ppb TPH as diesel remain in groundwater. The ACHCSA recommended that the 1441 Embarcadero property be included in the City of Oakland's permit tracking system and that corrective action at the 1441 Embarcadero property be reviewed if land use changes.

A Site Summary for 1441 Embarcadero (ACHCSA 2000d), which was prepared by

ACHCSA and attached to the LOP Case Closure letter (ACHCSA 2000a), indicates that the majority of contamination at the 1441 Embarcadero property occurred from surface releases due to the historical ship repair activities. The Site Summary indicates that extensive SLIC (Spills, Leaks, Investigations, and Cleanups) investigations were conducted at the 1441 Embarcadero property and that the SLIC investigation was closed on June 28, 1999. A separate closure letter for the SLIC investigation was not found during this assessment.

Recent Investigations

The most recent investigation at the 1441 Embarcadero property was conducted by Baseline during their investigation of the entire Embarcadero Cove area in May 2001. Baseline collected soil samples from six random locations (RN-D-3, RN-D-4, and RN-E-1 through RN-E-4; see Baseline Figure 2 in Appendix C) on the 1441 Embarcadero property (Baseline 2001). The "D" series samples were composited with two additional random soil samples collected from the 1363 Embarcadero property, and the four "E" series soil samples from the 1441 Embarcadero property were composited. The composited soil samples were analyzed for VOCs, SVOCs, TPH, metals, and PCBs. The soil sampling results are shown in the Baseline tables included in Appendix C of this report. The "E" composite soil sample contained lead at a concentration of 1,500 mg/kg, which is above the TTLC for lead of 1,000 mg/kg, which indicates that the soil would be considered a California hazardous waste if excavated for off-site disposal purposes. Baseline concluded that further characterization of the soils on the 1441 Embarcadero property would be required prior to development if soils were to be excavated from the property.

Sediment Investigations and Remediation

The RWQCB issued a Cleanup and Abatement Order (CAO No. 96-111) to Crowley Marine Services for Pacific Dry Dock Yards I (1441 Embarcadero) and II (not a part of the Site) on July 15, 1996 (RWQCB 1996b). The CAO related to removal of loose grit from the inter-tidal and supra-tidal zones and did not relate to soil and/or groundwater contamination that may be present above the tidal zones on the 1441 Embarcadero property. The CAO indicated that the ACHCSA was supervising Crowley's soil and groundwater investigations at the 1441 Embarcadero property. The CAO also indicated that Crowley vacuumed and swept Yards I and II removing approximately 80 tons of grit in 1995 and submitted a work plan for removal of spent sandblast grit from the inter- and supra-tidal zones at Yards I and II, which was approved

by the RWQCB. In March 1997, Crowley removed approximately 3,500 tons of grit from the 1441 Embarcadero property and disposed the grit at an approved landfill in December 1997. The RWQCB rescinded CAO No. 96-111 in a letter to Crowley dated April 22, 1998, which indicated that Board staff concurred with the scope of work completed and that the work was satisfactory in response to CAO No. 96-111 (RWQCB 1998). The letter also indicated that the ACHCSA was currently supervising soil and groundwater remedial investigations at the 1441 Embarcadero property.

A letter from the Port of Oakland to Crowley and the ACHCSA dated February 17, 1999 indicates that "Pacific Dry Dock Yard I (Area in Front of Storm Drain)" was named as a Candidate Toxic Hot Spot by the RWQCB in its Draft Final Regional Toxic Hot Spot Cleanup Plan for the Bay Protection and Toxic Cleanup Program (BPTCP) dated December 1998. The letter indicates that the Pacific Dry Dock Yard I (Area in Front of Storm Drain) was listed due to risks to aquatic life from copper, lead, mercury, zinc, tributyltin, ppDDE, PCBs, PAHs, chlorpyrifos, chlordane, dieldrin, and mirex. In a letter to the ACHCSA dated April 15, 1999, the RWQCB indicated that, although the area in front of Pacific Dry Dock Yard I was cleaned up to the RWQCB's satisfaction under CAO No. 96-111, two additional investigations conducted by PTI Environmental in 1994 and BPTCP between 1994 and 1997 revealed another problem associated with the storm drain near Pacific Dry Dock Yard I. The additional investigations indicated that the sediment in front of the storm drain was more toxic than the sediment in front of the dry dock. The BPTCP studies indicated that there was no toxicity directly in front of the dry dock facility and that the sediment in front of the storm drain contained high levels of contaminants common in urban runoff. The April 15, 1999 RWQCB letter indicated that the RWQCB views the contamination in front of the storm drain as an ongoing storm water problem for the general urban area and that the RWQCB considers the issue involving Crowley's responsibility under its former NPDES permit resolved.

J. Records Review

A report prepared by VISTA that summarizes the results of a search of federal and state regulatory agency databases was reviewed. The VISTA report is included in Appendix B. The database search was conducted to determine whether the Site or any nearby properties are under investigation for potential environmental issues or have been identified as conducting operations that could potentially impact the environment. The findings of the VISTA search are summarized below.

VISTA conducted its search of environmental databases on October 30, 2001. Because the environmental databases themselves are sometimes not updated by the specific regulatory agencies for periods of up to one year (depending on the database and the state), the database search conducted herein will not necessarily list a facility or site for which an environmental investigation /listing has been initiated subsequent to the last update.

VISTA conducted searches of the following federal databases:

- U.S. Environmental Protection Agency (USEPA) National Priorities List (NPL) for Uncontrolled Hazardous Waste Sites (updated July 2001) – one mile radius;
- USEPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS; updated July 2001) and CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP; updated July 2001)- one-half-mile radius;
- Corrective Action Site List (CORRACTS) of Resource Conservation and Recovery Act (RCRA) hazardous waste treatment, storage, and disposal (TSD) facilities subject to corrective action under RCRA (updated June 2000) – one mile radius;
- Resource Conservation and Recovery Act Information System (RCRIS) database of TSD facilities not subject to corrective action and hazardous waste generators (updated June 2000) - one-half-mile radius (TSD) and property and adjoining properties (generators); and

- Emergency Response Notification System (ERNS; updated December 2000) – one-eighth-mile radius.

VISTA also conducted searches of the following State of California databases:

- Annual Work Plan (AWP); identified by VISTA as the State (California) equivalent Priority List (SPL) (updated October 2000) – one mile radius;
- CalSites (identified by VISTA as the State equivalent CERCLIS list, or SCL) database (updated October 2000) - one-half-mile-radius;
- California Solid Waste Inventory System (SWIS; updated June 2001) - one-half-mile radius;
- Leaking Underground Storage Tank (LUST) Information System (updated August 2001) - one-half-mile radius; and
- Underground Storage Tank (UST) Registrations Database (updated January 1994) - property and adjoining properties.

All search radii were selected in accordance with ASTM standards.

The Site address, 1275-1441 Embarcadero, is listed on the LUST, UST, and ERNS databases.

1301 Embarcadero

An ERNS release occurred at 1301 Embarcadero on October 21, 1992. The VISTA report indicates that the material spilled and quantity of spilled material were not reported. The ERNS release was reported to have affected the Oakland Estuary/Coast Guard Island.

1363 Embarcadero

Majesty Yachts (1363 Embarcadero) is listed on the UST database, and the VISTA report indicates that a 2,000-gallon empty UST is in service at the Majesty Yacht facility. As discussed in the UST section of this report, the 2,000-gallon UST was removed from the 1363 Embarcadero property in October 1994.

1441 Embarcadero

Pacific Drydock Repair Company (1441 Embarcadero) is listed on the LUST and UST databases. The VISTA report indicates that the LUST case is closed at the 1441 Embarcadero property and that the "Regional Board (and local agency where appropriate) are in concurrence that no further action is necessary at the site." This information corresponds with the discussion of the LOP case closure in the soil and groundwater contamination section of this report.

The UST listing for the Pacific Drydock Repair Company at 1441 Embarcadero indicates that two 400-gallon USTs used to store leaded and unleaded gasoline are in service at 1441 Embarcadero. As discussed in the UST section of this report, a 400-gallon and a 500-gallon UST were removed from the 1441 Embarcadero property in September 1991 and February 1994, respectively.

No facilities in the vicinity of 1275-1441 Embarcadero were identified on the following databases within the radii specified in the ASTM standard: NPL, CERCLIS, CORRACTS, RCRIS-TSD, RCRIS Generators, ERNS, AWP (SPL), or SWIS databases. The remaining databases are discussed below.

CERCLIS-NFRAP

Four facilities listed on the CERCLIS-NFRAP database were identified by VISTA within a one-half mile radius of 1275-1441 Embarcadero. The US Coast Guard Support Center, Liquid Carbonic Spec Gas Corp (sic), Building H-232 (Port of Oakland), and Ryan Paints are listed as requiring no further remedial action. Because it has been determined that no further remedial action is required at these facilities, it is unlikely that any potential releases from these facilities have impacted 1275-1441 Embarcadero.

CalSites (SCL)

One facility listed on the CalSites database was identified by VISTA. The Liquid Carbonic Spec Gas Corp., located 0.33 miles west of 1275-1441 Embarcadero, has been referred to another agency (REFOA). The VISTA report indicates that oil residue was dumped on the soil and that the soil is discolored. The VISTA report also indicates that a lined acetylene pond at the Liquid Carbonic facility frequently overflowed. Due to the crossgradient location of the Liquid Carbonic facility, it is unlikely that releases from this facility have impacted 1275-1441 Embarcadero.

LUST

Twenty-three LUST facilities are located within one-half mile of 1275-1441 Embarcadero. The VISTA report indicates that the case has been closed at 12 of the LUST facilities and that soil is the only media affected at one facility. The status of these 13 sites indicates that cleanup has been completed, and it is unlikely that releases at these facilities have impacted 1275-1441 Embarcadero. One of the ten remaining facilities, Cooper Tire Shop Former is located in an upgradient location relative to 1275-1441 Embarcadero (assuming groundwater flows southwest toward Brooklyn Basin). Cooper Tire Shop is located 0.13 miles north of 1275-1441 Embarcadero across Highway 880 to the north of 1275-1441 Embarcadero. The VISTA report indicates that a leak was confirmed at the Cooper Tire Shop, but that the affected media is undefined. Given the distance from 1275-1441 Embarcadero and location across Highway 880, it is unlikely that releases from the Cooper Tire Shop have impacted 1275-1441 Embarcadero.

UST

Seven facilities within one-quarter mile of 1275-1441 Embarcadero are listed on the UST database. The presence of USTs at facilities in the vicinity of 1275-1441 Embarcadero is not necessarily an indication of environmental concern.

K. Interviews with Local Government Officials

The City of Oakland Fire Department (OFD), Alameda County Health Care Services Agency (ACHCSA), and Regional Water Quality Control Board (RWQCB) were contacted to inquire whether there are any recognized environmental conditions at the Site. According to

personnel with the ACHCSA, no records are on file for the 1275-1363 Embarcadero Site addresses, and the ACHCSA case is closed for the 1441 Embarcadero property. ACHCSA personnel indicated that the OFD should be contacted for records relating to the 1441 Embarcadero property. Based on a review of records on file at the OFD, recognized environmental conditions have been identified at the Site, as discussed in the previous sections of this report.

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IV. DEVIATIONS FROM THE ASTM STANDARD

There were no deletions or deviations from ASTM Practice E 1527-00 in conducting this Phase I environmental assessment.

APPENDIX A

Resumes

Table 1
City Directory Summary
Port of Oakland
1275-1441 Embarcadero
Oakland, California

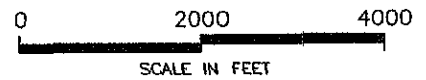
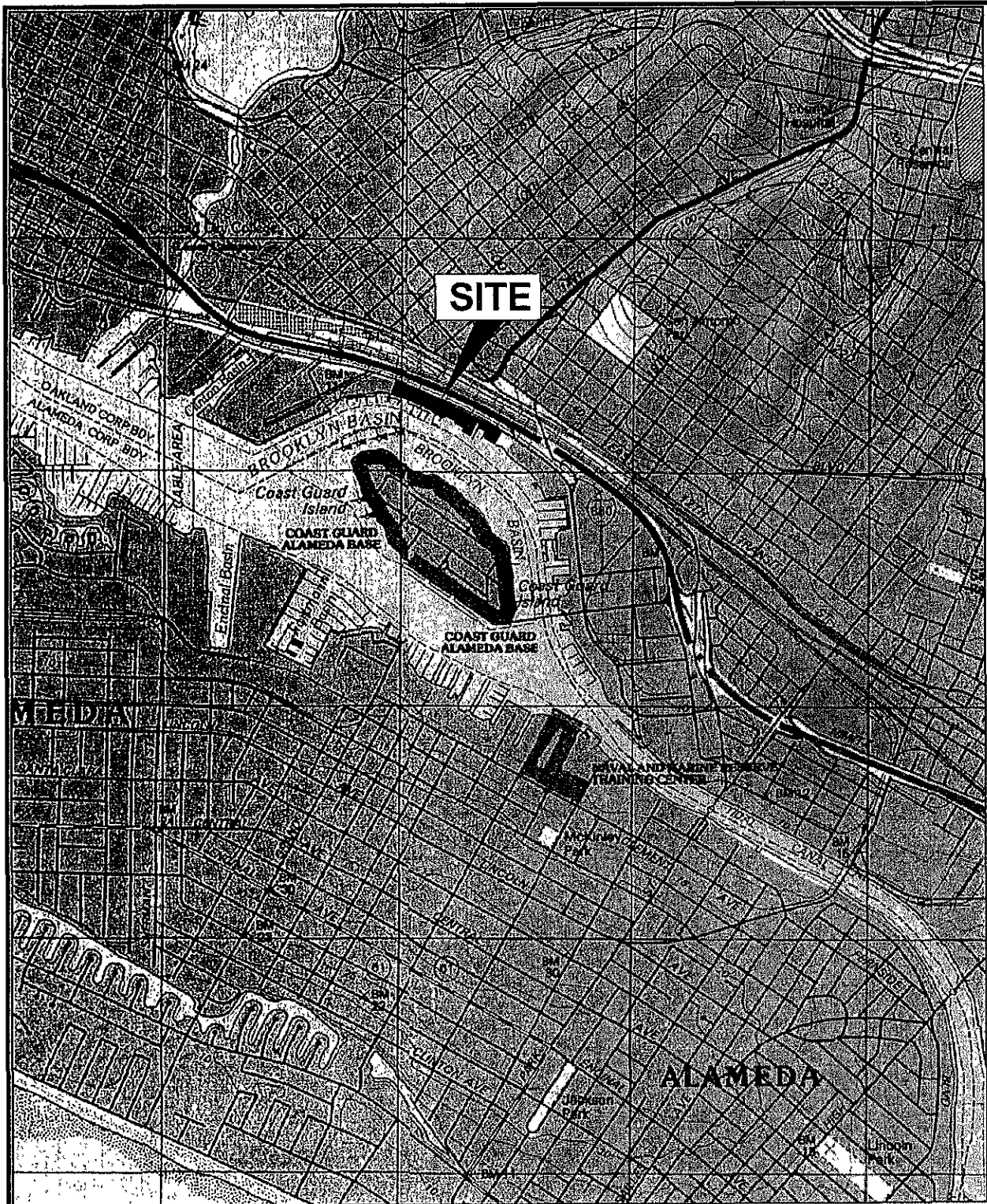
Address on Embarcadero

Date	1211	1285	1295	1301
1972	--	Edwards Heat Treating	--	Gang Plank
1976	Barclay Jacks	--	--	Gang Plank
1979	Barclay Jacks	--	--	Gangplank
1985	Barclay's Seafood; Hungry Hunter	BMW Marine Power	Hanson Steven E	Gangplank
1990	Barclay's Seafood; Hungry Hunter	Bayliner Boats; Ski Challengers; Spectrum Boats; Summit Marine Cntrs	Diffenderfer, John; Ellis, William; Haas, Bryan; Haas, Sandy; Hanson, Steven E	Gangplank Coffee Shop; Harrison's Marine Ct; SEA Ray
1997	Barclay's Seafood; Hungry Hunter	Harrison's Marine Ct; Harrison's Searay; Searay	Clark, Michael; Diffenderfer, John	--

Table 1
City Directory Summary
Port of Oakland
1275-1441 Embarcadero
Oakland, California

Address on Embarcadero

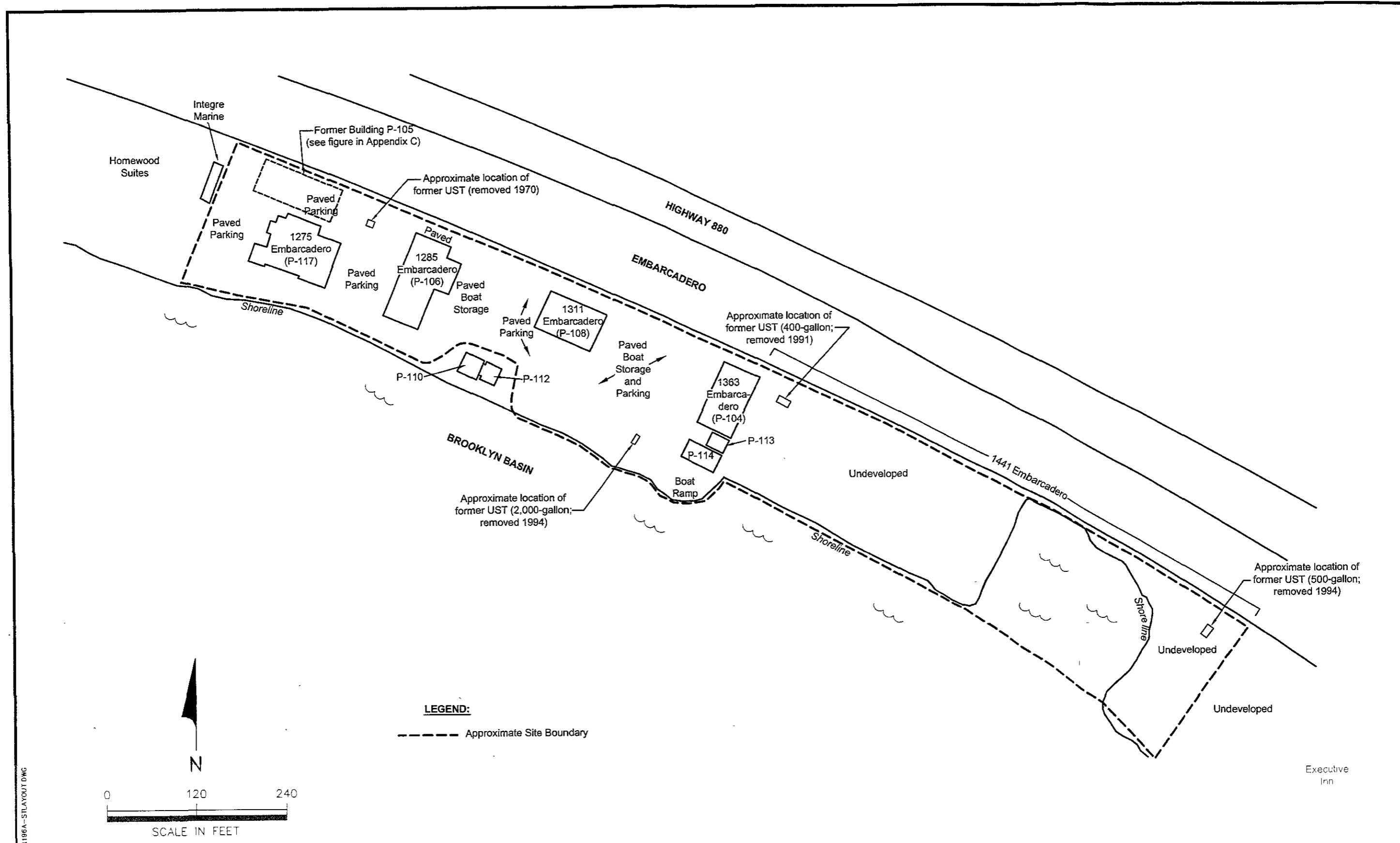
Date	1307	1311	1313	1363	1441
1972	Weber & Co	International Marine Sv; Manseau, Jean A; Oakland Marina; Smith Clarence	Catalina Marine; Western Marine Elct	Peterson Dick Co	Crowley Lnch & Tug; Crowley Lnch & Boat Pacific Dry Dck & Rpr
1976	Johnson, Ralph D	April Smll Wrk Boat; Boland, Richard; Brooks Rodney W; Oakland Marina; Oakld Yacht Sales; Whitmer Bill; Zig Zag Marine Serv	Catalina Marine	Steves Marine Inc	Crowley Lnch & Boat; Pacific Dry Dck & Rpr
1979	--	Seahorse Yacht Sale	--	Steves Marine Inc	Crowley Lnch & Boat; Pacific Dry Dck & Rpr
1985	--	Empire Sailing	--	Bell Marine; Land N Sea Craft; Land N Sea Yacht SL; Maddex Marine Mktng; Star Marine Elctrc; Viking Yachts	Pac Dry Dock & Rpr Co; Potomac; Yacht Potomac
1990	--	--	--	Boat Place, The; Frueh, Fred; Maddex Marine Mktng; Majesty Marine; Stallion Yacht SlS	Pac Dry Dock & Rpr Co; Potomac; Yacht Potomac
1997	--	--	--	--	--



SOURCE MAP: USGS 7.5 Minute OAKLAND Quad, California

01196A--VCLMAP.DWG

<p>IRIS ENVIRONMENTAL 1615 Broadway, Suite 1003, Oakland, California 94612</p>	<p>Site Location Map 1275 - 1441 Embarcadero Oakland, California</p>	<p>Figure 1</p>
<p>Drafter: MS Date: 1/13/02</p>	<p>Contract Number: 01-196A</p>	<p>Approved: Revised:</p>



01196A-STLAYOUT.DWG

IRIS ENVIRONMENTAL
16:5 Broadway, Suite 1003, Oakland, California 94612

Site Layout
1275 - 1441 Embarcadero
Oakland, California

Figure
2

Drafter: MAS

Date: 3/6/02

Contract Number: 01-196A

Approved

Revised.

APPENDIX A

Resumes

PHILLIP L. FITZWATER

EDUCATION

- 1981 M.S., Hydrology (Ground Water), University of Arizona
- 1978 B.S. with Distinction, Watershed Science (Surface Water Hydrology), Colorado State University

REGISTRATIONS AND CERTIFICATIONS

Registered Environmental Assessor, State of California, 1990
Registered Environmental Assessor Level II, State of California, 2000
Registered Professional Geologist, State of Arizona, 1986
Registered Professional Geologist, State of Wyoming, 1993
Registered Professional Hydrogeologist, American Institute of Hydrology, 1988
Certified Professional Geological Scientist, American Institute of Professional Geologists, 1985
40-Hour Hazardous Waste Operations/Emergency Response
8-Hour Annual Refresher

EXPERIENCE

Mr. Fitzwater is a Principal of Iris Environmental with an extensive experience base including the evaluation of risk posed by environmental conditions, hydrogeologic characterization, site remediation, Brownfield redevelopment, environmental compliance, and representation before regulatory agencies. He has over 20 years of experience in technical consulting related to the redevelopment of industrial properties and inner city parcels, risk assessment, environmental regulatory compliance for high tech, mining and heavy industries, due diligence auditing, cost allocation, hydrogeology, and hazardous waste management. Mr. Fitzwater has solved environmental problems throughout the western U.S. and Gulf Coast regions. He has managed projects from the very small to the very large, involving management of individuals and large multidisciplinary groups working from numerous offices throughout the U.S. and has provided expert witness testimony in deposition and at trial on an array of environmental issues. The following projects are representative of Mr. Fitzwater's experience:

- Mr. Fitzwater provides technical leadership on the Mission Bay Project that is in the heart of San Francisco, California and one of the largest Brownfields project in the western United States. The project covers an area of some 303 acres that have been in commercial and industrial use since the mid 1800's. The project surrounds China Basin Channel and when completed will transform the area into a dynamic new part of San Francisco. New uses are to include a new University of California campus; an entertainment complex; high-density housing; public open space; a hotel; retail and commercial uses; a hotel; a police and fire station; office; biotech; and research and development facilities. Mr. Fitzwater is providing an extensive array of

PHILLIP L. FITZWATER

environmental services to support the redevelopment activity including field investigations, risk assessments, modeling studies, and representation before community and regulatory authorities.

- Mr. Fitzwater provided technical leadership and regulatory agency interface for the redevelopment of the former Pacific Refinery in Hercules, California, which has undergone dismantling, and redevelopment into a 220-acre residential community in the northern portion of the San Francisco Bay.
- Senior technical strategist for restoration of a former manufacturing facility closure (Brownfields) project, including sump cleaning and removals, above and below ground tank removals, decommissioning of a water production well, and excavation, disposal and replacement of contaminated soils. Negotiated soil cleanup levels with regulatory agency. A Preliminary Endangerment Assessment (PEA) Report was submitted to the California Department of Toxic Substances Control (DTSC) concluding that detected levels of Total Petroleum Hydrocarbon as Thinner do not pose significant threats to residents or workers. DTSC concurred with the conclusions, and no further action at the site was required.
- Senior technical strategist for the preparation of a Preliminary Endangerment Assessment (PEA) Report for a former manufacturing facility. The focus of the report was that calculated health-based acceptable soil concentrations indicated that the detected levels of zinc (up to 29,000 milligrams per kilogram) do not pose significant threats to residents or workers. The California Department of Toxic Substances Control concurred with the conclusion, and no remedial action at the site was required.
- Served as lead technical consultant for multiple site characterizations and remediations around the San Francisco Bay Area. Chemicals of concern have included organic solvents, fuels, heavy metals, pesticides, and asbestos in air, soil, and water. Provided consultation on strategies and implementations to both in-house staff and outside legal counsel, and defended findings before state and federal regulatory agencies. Handled cost allocation negotiations.
- Conducted numerous environmental due diligence audits associated with worldwide mergers and acquisitions, including acquisitions as large as \$500 million and industries such as semiconductor, metal plating, computer and electronic instrument manufacturing, and various other high technology endeavors. Provided expert counsel on expected remedial costs and appropriate environmental set-asides for purchase agreements.
- Provided senior technical and project management on a multiple source federal Superfund site in Palo Alto, California. The project included characterization and remediation of chlorinated solvents, heavy metals, and petroleum hydrocarbons released from source areas distributed over a regional area. Used cone penetrometer testing, soil sampling, well installation, and aquifer testing to define the hydrostratigraphic system. Engineering feasibility studies that were completed to support selection and construction of the remedial systems involved the assessment and pilot testing of the latest technologies for remediating a wide range of chemical constituents. Prepared and presented technical strategies and findings before local, state, and federal agencies.

PHILLIP L. FITZWATER

- Directed site assessments and regulatory compliance audits associated with due diligence disclosure for the initial public offering (IPO) of a printed board manufacturer with facilities in Santa Clara and Costa Mesa. The project included subsurface investigations for heavy metal, chlorinated solvent, and petroleum hydrocarbon contamination, and the audits addressed chemical handling practices, compliance with permitting regulations, health and safety, and disposal practices. Prepared remediation action plans for gasoline contamination resulting from an underground storage tank.
- Lead technical consultant for New United Motors Manufacturing, Inc. in Fremont, California. Multiple projects were undertaken to assess possible hydrocarbon release areas and to engineer solutions for hydrocarbons detected in soils and ground water beneath the facility. Environmental considerations also were addressed for multiple plant expansions. Air emission inventory database selected for compliance monitoring. Represented the automobile manufacturer before state and local regulatory agencies.
- Environmental advisor for waste disposal practices and assessor for potential environmental contamination at an auto dealership in downtown San Francisco. Consultation was given on waste disposal options and the risks involved in each method.
- Managed an RI/FS for three major semiconductor manufacturers in California's Silicon Valley, which involved industrial solvent contamination in ground water extending over thousands of feet. The investigation identified potential source areas and additional responsible parties, who were issued special notice letters for cost sharing. Was responsible for scopes of work, project management, cost control, and presentations to clients, the public, and regulatory agencies.
- Served as project manager for a computer hardware manufacturer in California. Directed site characterization, remedial alternative evaluation, engineering design, construction management, and operational oversight of remedial measures. More than 300 test borings, 150 monitoring wells, and 15 extraction wells and associated piping were installed, and over 1,000 soil and ground water samples for chemical analysis were collected. Managed the design, construction, and operation of an advanced treatment system for removing volatile organic compounds from the ground water.
- Managed the design and implementation of multiple vapor extraction systems in clay and sandy soils, which effectively removed chlorinated and non-chlorinated hydrocarbons in areas otherwise inaccessible for remediation. Sufficient data were developed to support a CERCLA feasibility analysis of vapor extraction for dozens of source areas within a large Superfund site south of San Francisco. Used the data to prepare a vacuum process model and to conduct sensitivity analysis on the relative importance of individual physical and chemical processes occurring during vapor extraction.
- Provided technical support to the defense team representing a prior operator of a 130-acre asbestos mine in central California (an NPL Superfund site). Directed the development of a

PHILLIP L. FITZWATER

reclamation plan for the mine; critiqued and formally commented on EPA's investigations and findings; and served as liaison between regulatory agency personnel and other responsible parties.

- Provided strategic counsel to three semiconductor manufacturers in Sunnyvale, California, with merged ground water contaminant plumes. The site contained multiple NPL listed areas and multiple source areas. Directed the streamlining of the RI/FS process, assisted in agency negotiations, and made multiple presentations before client and agency forums.
- Directed a hydrogeological characterization of a fractured-rock system. Conducted geological mapping, test-pit logging, rock coring, monitoring well installation and sampling, and field-testing of hydraulic conductivity using packers and transducers, at the Edward Hines Lumber Company NPL site, in Mena, Arkansas.
- Managed a permitting study for developing a hazardous waste disposal site within a Gulf Coast salt dome. Study included detailed geologic mapping utilizing oil and gas geophysical and production data. Prepared a three-dimensional flow model to assess developmental impacts of injection and water supply well fields. Prepared closed-solution model to simulate contaminant transport.
- Served as project manager for a regional aquifer study at the Madison Limestone Formation, Powder River Basin, in Wyoming. Evaluated data from surface seismic profiles and borehole geophysical logs.
- Managed a ground water contamination assessment at a brine production facility. Traced the water contamination resulting from mercury spills with an exploration program that included monitoring well installation, test borings, borehole geophysical logging, and water quality sampling.
- Traced regional ground water flow using geochemical and isotopic techniques.
- Served as senior technical reviewer of hydrogeological portions of RCRA Part B applications on behalf of Environmental Protection Agency. Evaluated technical completeness, applicability of study procedures, and validity of conclusions.
- Directed the design and cost development of dewatering and depressurization well fields for a 125,000-acre Gulf Coast lignite mine. Evaluated 600 geophysical logs to characterize hydrogeology of the mine.
- Directed the regional hydrogeological site characterization at a lignite mine in Texas. Study included characterization of geology, aquifer properties, water quality, and regional flow patterns. Hydrogeological characterizations were accomplished using data from surface and borehole geophysics, soil test borings, and monitoring wells.

PHILLIP L. FITZWATER

- Designed a computerized data base system for entry of approximately 1,000 geophysical logs taken for hydrogeological characterization of a lignite mine near Jewett, Texas. Used hydrogeological data to locate areas requiring ground water control to enhance slope stability. Geotechnical borings were drilled, and water quality wells were installed and tested.
- Served as project manager for the hydrogeological characterization and hazardous assessment associated with release of toluene at an industrial facility in eastern San Francisco Bay Area. Prepared safety plans, work plans, and feasibility studies. Utilized mobile gas chromatograph laboratory to facilitate flexible and effective field investigations of horizontal and vertical extent of plume. Provided technical representation before regulatory community.
- Managed and participated in a multidisciplinary study of a site to be developed as a hazardous waste storage and disposal facility. Exploration included test borings, monitoring well installation, water quality sampling and analysis, and *in situ* permeability testing. Data were used to prepare site permit applications.
- Conducted geological and ground water assessments at two hazardous waste facilities in Texas City, Texas. Developed closure plans for hazardous waste pits at both sites. Prepared solute transport models for prediction of contaminant-recovery rates.
- Managed hydrogeological exploration of proposed site for a new municipal water well in Tomball, Texas. Exploration included interpretation of oil and gas geophysical logs and determination of strata to be screened by well.
- Directed monitoring well system design and installation at a hazardous waste landfill, Point Comfort, Texas.

PHILLIP L. FITZWATER

PROFESSIONAL MEMBERSHIPS

Member, American Institute of Hydrology.
Member, American Institute of Professional Geologists.
Member, American Society for Testing and Materials:
Committee on Environmental Due Diligence Assessments.
Member, Association of Ground Water Scientists and Engineers.
Member, National Water Well Association.
Member, Phi Kappa Phi, Honorary Scholastic Society.
Member, Xi Sigma Pi, Honorary Society of Natural Resources.
Member, Gamma Sigma Delta, Honor Society of Agriculture.
Former Treasurer and Board of Director, Oakland East Bay Symphony.

PUBLICATIONS AND PRESENTATIONS

- Fitzwater, P.L. 2001. State of the Art - Environmental Due Diligence, Real Property Law Section, 20th Annual Retreat, State Bar of California. Published in *Thriving and Surviving in the New Real Estate Economy*.
- Scofield, R. and Fitzwater, P.L. 1993. When Is Enough Enough? An update on Setting and Achieving Cleanup Goals for Soil and Ground Water. In *Shepard's California Environmental Law & Regulation Reporter*.
- Fitzwater, P.L., and C.L. Brassow. 1984. Assessment and closure of a hazardous waste disposal site in the Gulf Coast. In *Proceedings of the Symposium on Hazardous Wastes and Environmental Emergencies*. Silver Spring, Md.: Hazardous Materials Control Research Institute.
- Fitzwater, P.L., C.L. Brassow, and C.W. Fetter. 1983. Assessment of ground-water contamination and remedial action for a hazardous waste facility in the Gulf Coast. In *Proceedings of the Third National Symposium on Aquifer Restoration and Ground-Water Monitoring*. Ohio: NWWA.
- Fitzwater, P.L. 1981. The Black Hills Monocline: Barrier or conduit for Madison Limestone ground water. In *Proceedings of the 10th Annual Rocky Mountain Groundwater Conference, Laramie, WY*.
- Fitzwater, P.L. 1981. Age and movement of ground water in the Madison Limestone, northeastern Wyoming. Master's thesis, University of Arizona.

KAREN T. SMITH, R.E.A.

EDUCATION

1992 B.A., Environmental Sciences, University of Virginia

REGISTRATIONS

Registered Environmental Assessor, State of California, 2000

AHERA-Certified Building Inspector and Management Planner for Asbestos

EXPERIENCE

Ms. Smith is a Manager at Iris Environmental with over nine years experience in environmental consulting with emphasis on due diligence and human health risk assessment. She has conducted numerous Phase I Environmental Site Assessments and compliance audits for properties throughout the U.S. and Canada. Ms. Smith has calculated cancer risks and noncancer hazard indices as well as risk-based cleanup levels for multipathway exposure to chemicals in various media at Superfund sites and other facilities. Ms. Smith has substantial experience in database development and management and in conducting research in support of litigation. The following projects are representative of Ms. Smith's experience:

- Conducted Phase I Environmental Site Assessments and compliance audits for numerous commercial and industrial facilities located in the U.S. and Canada. Properties audited include: manufacturers of epoxy counter tops, plywood, plastic bottles, plastic cutlery, candles, paint brushes, windows, woven wire products, automobile parts, packaging machinery, and lightning surge protection equipment; marine repair facilities and terminals; a fuel supply company; medical facilities; hotels; a commercial/industrial facility with over 30 tenants; a commercial garbage collection company; self-storage facilities; shopping centers; a billboard company; and several undeveloped lots and vacant buildings.
- Managed the updating of Phase I Environmental Site Assessments for 17 sites located around the country. Coordinated with the client, the target company, and staff from four offices; conducted assessments at six of the sites; and wrote and reviewed updated reports.
- Prepared storm water pollution prevention and monitoring plans for multiple facilities of a plastics manufacturer located in Northern and Southern California.
- Assisted in the preparation of a RCRA Part B Permit Application for a hazardous waste transfer facility in Southern California.
- Calculated cancer risks and noncancer hazard indices for populations exposed to chemicals present in the soil, sediment, surface water, and ground water at a Superfund site. Conducted a multipathway evaluation of risks including ingestion of fish and produce.

KAREN T. SMITH, R.E.A.

- Calculated site-specific cleanup levels protective of human health and the environment for six former underground storage tank sites. Evaluated multipathway exposure to petroleum products in soil, ground water, and surface water. Site-specific cleanup levels were used to develop risk management plans that were submitted to the San Francisco Regional Water Quality Control Board.
- Calculated site-specific cleanup levels protective of human health for a 245-acre site. Calculated cleanup levels using site-specific data and assumptions for exposure to petroleum products, VOCs, and SVOCs via inhalation.
- Calculated risk-based cleanup levels for VOCs in ground water and inorganics in soil at a former printed circuit board and electronics assembly facility.
- Conducted a Preliminary Endangerment Assessment including report production following DTSC guidelines for a former manufacturing facility. Exposure to a petroleum-based thinner via inhalation of soil vapors and direct contact with soil was evaluated.
- Conducted screening health risk assessments to determine risks associated with a natural petroleum seep near a residential development, and to determine risks associated with petroleum hydrocarbon-containing soil at a former warehouse/distribution center.
- Calculated acceptable soil cleanup levels for residential exposure to metals at a former circuit manufacturing site.
- Researched national and international standards and guidelines for methylmercury by conducting a literature search and contacting various national and international agencies.
- Researched state and federal regulatory requirements for chemical ingredients of several furniture protection/polish products. Summarized the status of chemicals under state and federal regulations including RCRA, EPCRA, the Clean Water Act, TSCA, and Proposition 65.
- Developed databases of existing soil and groundwater data for several sites, including one contaminated with petroleum products and one contaminated with a variety of organic and inorganic chemicals. Compared existing data to health-based soil clean-up levels and selected constituents of concern for further evaluations.
- Provided litigation support for a major utility company in southern California suing its insurance company for costs incurred for investigations, evaluations, and remedial activities at former manufactured gas sites. Reviewed historical documents to identify the materials used and activities that occurred at the sites that may have resulted in site contamination, evaluated current site investigation results, and determined the fate and transport of the site contaminants in surface and subsurface soils and groundwater.
- Assisted a new owner of 25 gasoline stations with the transfer of ownership of underground storage tank, air, and other permits and hazardous materials business plans. Contacted

county agencies and air quality management districts to determine requirements for ownership transfers and prepared documents for submittal to the county agencies.

- Investigated several incidents at a local municipal water supplier in which 1,2-dichloroethane was detected in finished water at concentrations above state and federal MCLs. Conducted literature searches, visited water treatment plants, interviewed plant managers and sample collectors. Prepared a report on investigation findings.
- Researched history and status of underground storage tanks at a 260-acre site. Reviewed documents and conducted searches at regulatory agencies. Prepared report documenting research and findings.
- Researched the historical uses, investigations, and remedial activities conducted at eighteen individual parcels located on a Superfund site. Histories were used in fact sheets prepared to provide information to employees of the current site tenant.
- Conducted an analysis of the potential hazards posed by No. 2 Fuel Oil contained in underground storage tanks.

July 2001

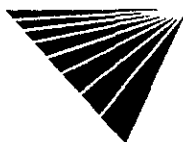
APPENDIX B

**VISTA Report of Site and Vicinity
and
Historical Research Documentation**

SITE ASSESSMENT REPORT

PROPERTY INFORMATION	CLIENT INFORMATION
Project Name/Ref #: 01-196-A Port of Oakland - Embarcadero Cove 1275-1441 Embarcadero Oakland, CA 94606 Latitude/Longitude: (37.787521, 122.247846)	Karen Smith Iris Environmental 1615 Broadway Ste 1003 Oakland, CA 94612

Site Distribution Summary	<i>within 1/8 mile</i>	<i>1/8 to 1/4 mile</i>	<i>1/4 to 1/2 mile</i>	<i>1/2 to 1 mile</i>
Agency / Database - Type of Records				
A) Databases searched to 1 mile:				
US EPA NPL National Priority List	0	0	0	0
US EPA CORRACTS RCRA Corrective Actions (w/o TSD)	0	0	0	0
US EPA TSD RCRA Corrective Actions and CORRACTS associated TSD	0	0	0	0
STATE SPL State equivalent priority list	0	0	0	0
B) Databases searched to 1/2 mile:				
STATE SCL State equivalent CERCLIS list	0	0	1	-
US EPA CERCLIS / NFRAP Sites currently or formerly under review by US EPA	0	0	4	-
US EPA TSD RCRA permitted treatment, storage, disposal facilities	0	0	0	-
STATE LUST Leaking Underground Storage Tanks	1	7	19	-
STATE SWLF Permitted as solid waste landfills, incinerators, or transfer stations	0	0	0	-
C) Databases searched to 1/4 mile:				
STATE UST Registered underground storage tanks	3	6	-	-
STATE AST Registered aboveground storage tanks	0	0	-	-



For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

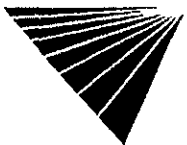
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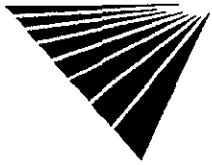
Date of Report: October 30, 2001

Version 2.7

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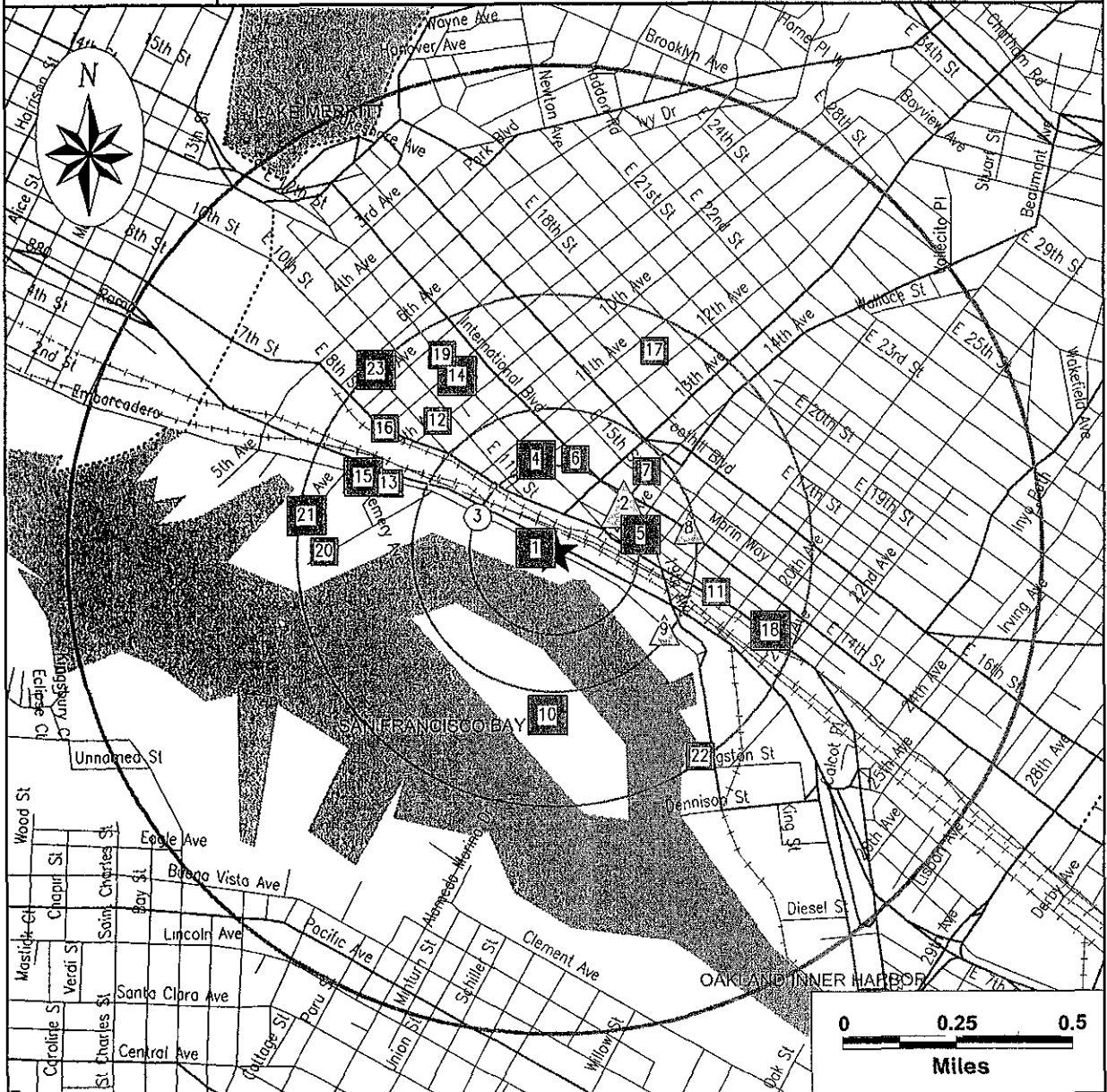
Site Distribution Summary			within 1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile
Agency / Database - Type of Records						
D) Databases searched to 1/8 mile:						
US EPA	ERNS	Emergency Response Notification System of spills	1	-	-	-
US EPA	LG GEN	RCRA registered large generators of hazardous waste	0	-	-	-
US EPA	SM GEN	RCRA registered small generators of hazardous waste	0	-	-	-
STATE	SPILLS	State spills list	0	-	-	-
US EPA	NOTIFIERS	RCRIS Notifiers	0	-	-	-
<p>This report meets the ASTM standard E-1527 for standard federal and state government database research in a Phase I environmental site assessment. A (-) indicates a distance not searched because it exceeds these ASTM search parameters.</p> <p>LIMITATION OF LIABILITY Customer proceeds at its own risk in choosing to rely on VISTA services, in whole or in part, prior to proceeding with any transaction. VISTA cannot be an insurer of the accuracy of the information, errors occurring in conversion of data, or for customer's use of data. VISTA and its affiliated companies, officers, agents, employees and independent contractors cannot be held liable for accuracy, storage, delivery, loss or expense suffered by customer resulting directly or indirectly from any information provided by VISTA.</p>						
NOTES						





SITE ASSESSMENT REPORT

Map of Sites within 1 Mile



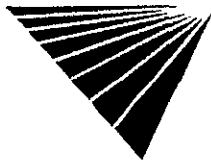
Subject Site 	Category: Databases Searched to: Single Sites Multiple Sites	A 1 mi. 	B 1/2 mi. 	C 1/4 mi. 	D 1/8 mi.
	Highways and Major Roads Roads Railroads Rivers or Water Bodies Utilities	NPL, SPL, CORRACTS (TSD)	CERCLIS, NFRAP, TSD, LUST, SWLF, SCL	UST	ERNS, GENERATORS

For More Information Call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403

Report ID: 345001901

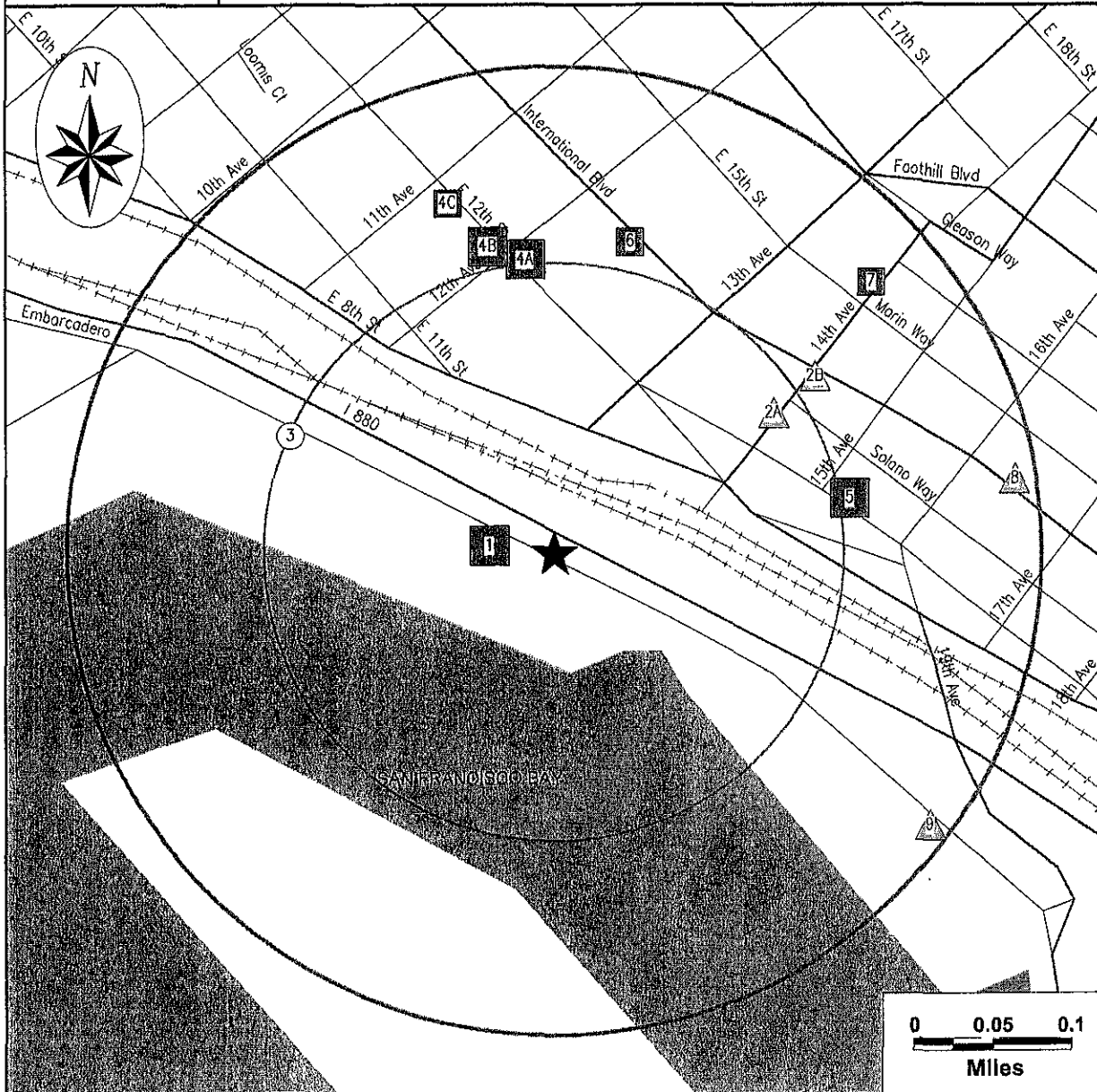
Date of Report: October 30, 2001

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SITE ASSESSMENT REPORT

Map of Sites within 1/4 Mile



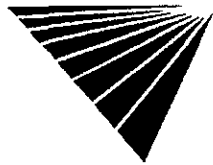
Subject Site 	Category: Databases Searched to:	A 1 mi. 	B 1/2 mi. 	C 1/4 mi. 	D 1/8 mi.
	Single Sites Multiple Sites	 NPL, SPL, CORRACTS (TSD)	 CERCLIS/ NFRAP, TSD, LUST, SWLF, SCL	 UST	 ERNS, GENERATORS
Highways and Major Roads Roads Railroads Rivers or Water Bodies Utilities					

For More Information Call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403

Report ID: 345001901

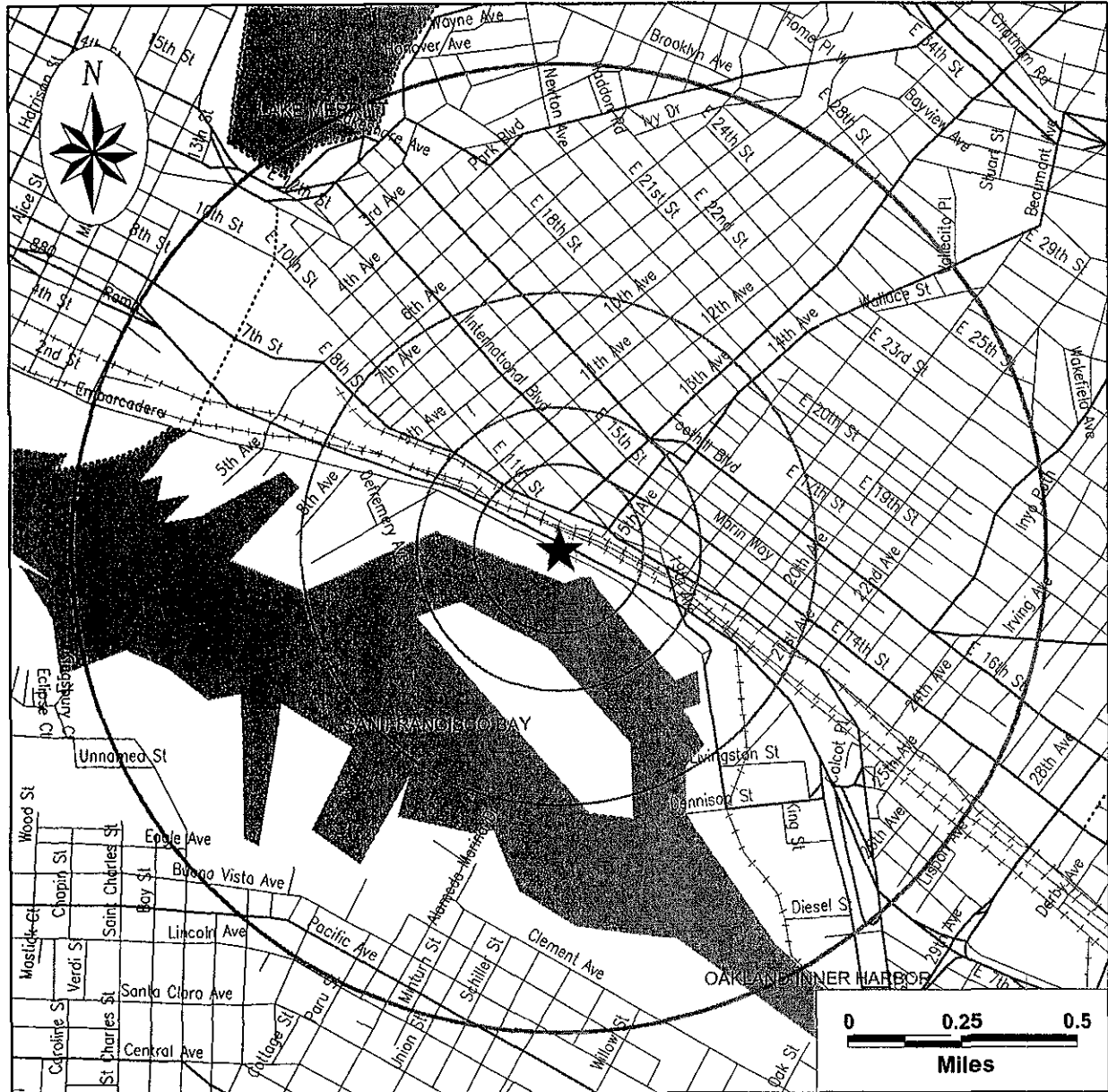
Date of Report: October 30, 2001

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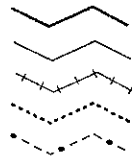


SITE ASSESSMENT REPORT

Street Map



Subject Site



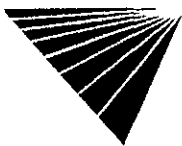
Highways and Major Roads
Roads
Railroads
Rivers or Water Bodies
Utilities

SITE ASSESSMENT REPORT

SITE INVENTORY

MAP ID	PROPERTY AND THE ADJACENT AREA (within 1/8 mile)	VISTA ID DISTANCE DIRECTION	A				B			C		D					
			INPL	CORRACTS	TSD CORRACTS	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS
1	MAJESTY YACHTS 1363 EMBARCADERO OAKLAND, CA 94606	4025920 0.00 MI NA									X						
1	PACIFIC DRYDOCK REPAIR CO , 1441 EMBARCADERO OAKLAND, CA 94607	316304 0.00 MI NA							X		X						
2A	NABISCO BRANDS 1267 014TH OAKLAND, CA 94623	4015700 0.11 MI NE									X						
3	1301 EMBARCADERO OAKLAND, CA 94606	8576848 0.12 MI W											X				

MAP ID	SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)	VISTA ID DISTANCE DIRECTION	A				B			C		D					
			INPL	CORRACTS	TSD CORRACTS	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS
2B	DAVLIN PAINT CO, INC 1401 E 014TH OAKLAND, CA 94606	4015702 0.14 MI NE									X						
4A	UNKNOWN 1200 E 12TH OAKLAND, CA 94606	4016395 0.13 MI N									X						
4A	COOPER TIRE SHOP FORMER 1200 12TH ST E OAKLAND, CA 94606	12639252 0.13 MI N							X								
4B	GIBSON PAINT COMPANY 1199 E. 12TH ST. OAKLAND, CA 94606	171090 0.14 MI N							X		X						
4B	GIBSON PAINT COMPANY SCREEN PROCESS 1199 12TH ST E OAKLAND, CA 94606	67009542 0.14 MI N							X								
4C	GLASS ON THE MOVE 1111 E. 12TH ST OAKLAND, CA 94606	3781150 0.17 MI N							X								



X = search criteria; * = tag-along (beyond search criteria).

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

Report ID: 345001901

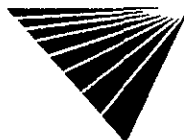
Date of Report: October 30, 2001

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MAP ID	SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)	VISTA ID DISTANCE DIRECTION	A				B				C		D				
			NPL	CORRACTS	TSD CORRACTS	SPL	SCL	CERCLIS/NFRAP	TSD	IUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS
5	ROSE EXTERMINATOR CO 1512 E 12TH OAKLAND, CA 94606	4016400 0.13 MI E									X						
5	MODERN AUTO BODY 1518 E. 12TH ST OAKLAND, CA 94606	7810351 0.13 MI E								X							
6	OAKLAND FIRE STATION #4 1235 E. 14TH ST OAKLAND, CA 94606	6320314 0.14 MI N								X							
7	VACANT LOT 1515 14TH AVE OAKLAND, CA 94606	11498353 0.21 MI NE								X							
8	GOODWILL CAB CO INC 1632 E 14TH OAKLAND, CA 94606	4016477 0.24 MI E									X						
9	BLDG. P-323 1755 EMBARCADERO OAKLAND, CA 94606	1252620 0.24 MI SE									X						

MAP ID	SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)	VISTA ID DISTANCE DIRECTION	A				B				C		D				
			NPL	CORRACTS	TSD CORRACTS	SPL	SCL	CERCLIS/NFRAP	TSD	IUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS
10	USDOT CG TWELFTH DIST FLP CG GOVNMNT ISL ALAMEDA, CA 94501	5241062 0.29 MI S					X										
10	USCG SUPPORT CENTER COAST GUARD ISLAND ALAMEDA, CA 0	65401070 0.30 MI S								X							
10	USCG SUPPORT CENTER UNKNOWN COAST GUARD ISLAND ALAMEDA, CA 94501	64542672 0.31 MI S								X							
11	CHRISTIAN INTERNATIONAL CHURCH 1832 12TH ST E OAKLAND, CA 94606	11498345 0.30 MI E								X							
12	SALLE'S PAINT BODY 1049 9TH AVENUE OAKLAND, CA 94606	365929 0.32 MI NW								X							
13	LIQUID CARBONIC SPEC GAS CORP 901 EMBARCADERO ST OAKLAND, CA 94606	245989 0.33 MI W					X	X	X								



X = search criteria; • = tag-along (beyond search criteria).

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

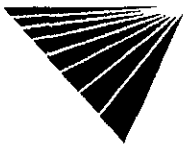
Report ID: 345001901

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MAP ID	SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)		A					B			C			D					
			NPL	CORRACTS	TSD CORRACTS	SPL	SCI	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS	NOTIFIERS	
																			VISTA ID
14	J R USED AUTO PARTS 823 E. 12TH ST OAKLAND, CA 94606	3065439 0.37 MI NW																	X
14	1X CAKEBREAD GARAGE 802 E. 12TH ST OAKLAND, CA 94606	6604086 0.38 MI NW																	X
15	BUILDING H-232, PORT OF OAKLAND 845 EMBARCADERO OAKLAND, CA 94606	3078297 0.39 MI W						X											
15	CANNEY BLDG H 211 845 EMBARCADERO OAKLAND, CA 94606	12639645 0.39 MI W																	X
16	SOUTHERN PACIFIC RAILYARD UNKNOWN 8TH ST E 8TH AVE OAKLAND, CA 94607	64570494 0.40 MI NW																	X
17	NATIONAL IMPORT 1148 18TH OAKLAND, CA 94607	4222285 0.43 MI NE																	X
18	WILLIAM WURZBACH COMPANY 1200 20TH AVE OAKLAND, CA 94606	8568296 0.43 MI E																	X
18	1X WONG'S ARCO STATION 2032 E. 12TH ST OAKLAND, CA 94606	1247329 0.45 MI E																	X
19	HARLEY DAVIDSON MOTORCYCLE 744 12TH ST E OAKLAND, CA 94606	11498342 0.43 MI NW																	X
20	MARINE TERMINALS CORP 101 10TH ST OAKLAND, CA 94606	12639238 0.44 MI W																	X
21	KEEP ON TRUCKING CO INC 370 8TH AVE OAKLAND, CA 94606	1252818 0.46 MI W																	X
21	CARD LOCK FORMER BUILDING H 204 79 8TH AVE OAKLAND, CA 94606	12639377 0.50 MI W																	X
21	CARD LOCK FORMER BUILDING H 204 79 8TH AVE OAKLAND, CA 94606	67010372 0.50 MI W																	X
22	VUKASIM PROPERTY 54 EMBARCADERO OAKLAND, CA 94606	5354419 0.49 MI SE																	X
23	RYAN PAINTS 630 E 10TH ST OAKLAND, CA 94606	363990 0.50 MI NW																	X



X = search criteria; * = tag-along (beyond search criteria).

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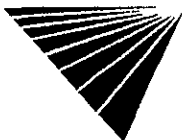
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MAP ID	SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)	VISTA ID DISTANCE DIRECTION	A				B			C		D					
			NPL	CORRACTS	TSD CORRACTS	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS
23	1X AMERICAN INK PRODUCTS INC 630 E. 10TH ST OAKLAND, CA 94606	930163 0.50 MI NW							X								

MAP ID	SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)	VISTA ID DISTANCE DIRECTION	A				B			C		D			
			NPL	CORRACTS	TSD CORRACTS	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	AST	ERNS	LG GEN

No Records Found



X = search criteria; • = tag-along (beyond search criteria).

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UNMAPPED SITES	A				B				C		D					
	VISTA ID	NPL	CORRACTS	TSD CORRACTS	SPL	SCI	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	AST	ERNS	LG GEN	SM GEN	SPILLS
No Records Found																



SITE ASSESSMENT REPORT

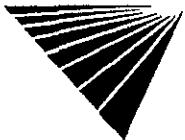
DETAILS

PROPERTY AND THE ADJACENT AREA (within 1/8 mile)

VISTA Address*:	MAJESTY YACHTS 1363 EMBARCADERO OAKLAND, CA 94606	VISTA ID#:	4025920
		Distance/Direction:	0.00 MI / NA
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:	MAJESTY YACHTS 1363 EMBARCADERO OAKLAND, CA 94607		
Facility Name:	MAJESTY YACHTS		
Facility Address:	1363 EMBARCADERO OAKLAND, CA 94607		
Facility County:	01000		
Total Underground Tanks:	1		
Total Aboveground Tanks:	NOT REPORTED		
Total Tanks Removed:	0		
Tank ID #:	T001U		
Tank Contents:	EMPTY		
Tank Age:	0		
Tank Capacity:	2000 GALLONS		
Tank Status:	ACTIVE/IN SERVICE		
Leak Monitor:	MONITOR PRESENT		
Piping Type:	UNKNOWN		
Tank Material:	UNKNOWN		
VISTA Address*:	PACIFIC DRYDOCK REPAIR CO , 1441 EMBARCADERO OAKLAND, CA 94607	VISTA ID#:	316304
		Distance/Direction:	0.00 MI / NA
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:	PACIFIC DRY DOCK AND REPAIR CO 1441 EMBARCADERO OAKLAND, CA 94606		
Facility Name:	PACIFIC DRY DOCK AND REPAIRCO		
Facility Address:	1441 EMBARCADERO OAKLAND, CA 94606		
Facility County:	01000R. G.		
Total Underground Tanks:	2		
Total Aboveground Tanks:	NOT REPORTED		
Total Tanks Removed:	0		
Tank ID #:	T001U		

Map ID
1

Map ID
1



* VISTA address includes enhanced city and ZIP.

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PROPERTY AND THE ADJACENT AREA (within 1/8 mile) CONT.

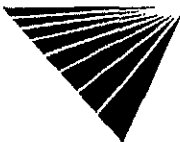
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	400 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN
Tank ID #:	T001U
Tank Contents:	LEADED GAS
Tank Age:	0
Tank Capacity:	400 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-1119
Agency Address:	PACIFIC DRY DOCK REPAIR COMPANY 1441 EMBARCADERO OAKLAND, CA 0		
Case ID #:	01-1119		
Site Name:	PACIFIC DRY DOCK REPAIR COMPANY		
Site Address:	1441 EMBARCADERO OAKLAND, CA ALAMEDA		
Date Entered:	11/20/91		
Maximum Groundwater:	34000		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.		
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		

VISTA Address*	NABISCO BRANDS 1267 014TH OAKLAND, CA 94623	VISTA ID#:	4015700
		Distance/Direction:	0.11 MI / NE
		Plotted as:	Point

Map ID
2A

STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE		
Facility Name:	NABISCO BRANDS		
Facility Address:	1267 014TH OAKLAND, CA 94623		
Facility County:	01000NEIL		
Total Underground Tanks:	2		
Total Aboveground Tanks:	NOT REPORTED		
Total Tanks Removed:	2		



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PROPERTY AND THE ADJACENT AREA (within 1/8 mile) CONT.

Tank ID #:	T001U
Tank Contents:	UNKNOWN
Tank Age:	0
Tank Capacity:	7937 GALLONS
Tank Status:	CLOSED REMOVED
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN
Tank ID #:	T001U
Tank Contents:	UNKNOWN
Tank Age:	0
Tank Capacity:	7937 GALLONS
Tank Status:	CLOSED REMOVED
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN

VISTA Address*:	1301 EMBARCADERO OAKLAND, CA 94606	VISTA ID#:	8576848
		Distance/Direction:	0.12 MI / W
		Plotted as:	Point
ERNS - Emergency Response Notification System / SRC# 8		EPA/Agency ID:	N/A

Map ID
3

Agency Address:	1301 EMBARCADERO OAKLAND, CA 0
Vista ID:	8576848
Agency ID:	141423
Facility Address:	1301 EMBARCADERO
Facility City:	OAKLAND
Facility State:	CA
Facility County:	ALAMEDA
Spill Date:	10/21/1992
Spill Time:	09:30 AM
Case Number:	141423
Spill Location:	1301 EMBARCADERO
Source Agency:	N
Discharger Name:	UNKNOWN,
Material Spilled 1:	UNKNOWN MATERIAL
Material Units 1:	UNK
Is Air Release:	NO
Is Land Release:	NO
Is Water Release:	NO
Is Ground Release:	NO
Is Facility Release:	NO
Is Other Release:	NO
Waterway Affected:	OAKLAND ESTUARY>COAST GUARDISLAND



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PROPERTY AND THE ADJACENT AREA (within 1/8 mile) CONT.

**Fields Not Reported by the Source
Agency for this Site:**

Epa ID(1), Facility Name(1), Facility Zip(1), Discharger Org(1), Discharger Address(1), Discharger Phone(1), Discharger County(1), Discharger City(1), Discharger State(1), Discharger Zip(1), Material Quantity 1(1)

SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)

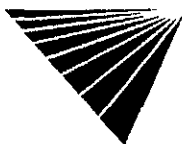
VISTA Address*:	DAVLIN PAINT CO, INC 1401 E 014TH OAKLAND, CA 94606	VISTA ID#:	4015702
		Distance/Direction:	0.14 MI / NE
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:		SAME AS ABOVE	
Facility Name:		DAVLIN PAINT CO, INC	
Facility Address:		1401 E 014TH OAKLAND, CA 94606	
Facility County:		01000DAVID	
Total Underground Tanks:		2	
Total Aboveground Tanks:		NOT REPORTED	
Total Tanks Removed:		2	
Tank ID #:		T001U	
Tank Contents:		UNKNOWN	
Tank Age:		0	
Tank Capacity:		2000 GALLONS	
Tank Status:		CLOSED REMOVED	
Leak Monitor:		MONITOR PRESENT	
Piping Type:		UNKNOWN	
Tank Material:		BARE STEEL	
Tank ID #:		T001U	
Tank Contents:		UNKNOWN	
Tank Age:		0	
Tank Capacity:		4000 GALLONS	
Tank Status:		CLOSED REMOVED	
Leak Monitor:		MONITOR PRESENT	
Piping Type:		UNKNOWN	
Tank Material:		BARE STEEL	
VISTA Address*:	UNKNOWN 1200 E 12TH OAKLAND, CA 94606	VISTA ID#:	4016395
		Distance/Direction:	0.13 MI / N
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:		SAME AS ABOVE	
Facility Name:		UNKNOWN	
Facility Address:		1200 E 12TH OAKLAND, CA 94606	

Map ID

2B

Map ID

4A



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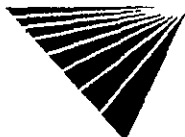
SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Facility County:	01000
Total Underground Tanks:	2
Total Aboveground Tanks:	NOT REPORTED
Total Tanks Removed:	0
Tank ID #:	T001U
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	1 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN
Tank ID #:	T001U
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	500 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN

VISTA Address*:	COOPER TIRE SHOP FORMER 1200 12TH ST E OAKLAND, CA 94606	VISTA ID#:	12639252
		Distance/Direction:	0.13 MI / N
		Plotted as:	Point

Map ID
4A

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE	
Site Name:	COOPER TIRE SHOP FORMER	
Site Location:	1200 12TH ST E OAKLAND CA 94606-	
Site County:	ALAMEDA	
Water Quality Control Board Region:	02	
Case ID #:	01-2458	
Local Case ID #:	3284	
Media Affected:	UNDEFINED	
Lead Agency:	LOCAL AGENCY LEAD	
Remediation Status:	LEAK BEING CONFIRMED	
Substance Leaked:	GASOLINE	
	CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED	
Enforcement Type:	NONE TAKEN	
Funding By:	FEDERAL FUNDS	
How was Leak Discovered:	TANK CLOSURE	
How was Leak Stopped:	CLOSE TANK	



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

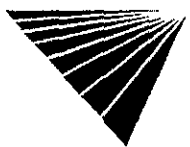
MTBE Tested:	SITE NOT TESTED FOR MTBE
Program Type:	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak:	UNKNOWN
Source of Leak:	UNKNOWN
Longitude:	37.7900661
Latitude:	-122.2489181
Summary:	NEW CASE PER ACHD - 10/7/98.
Date Leak was Confirmed:	8/14/96
Date Leak was Discovered:	8/14/96
Reported Date:	8/14/96
Date Leak was Stopped:	8/14/96
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Abatement Method(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-2458
Agency Address:	COOPER TIRE SHOP FORMER 1200 12TH ST E OAKLAND, CA 0		
Case ID #:	01-2458		
Site Name:	COOPER TIRE SHOP FORMER		
Site Address:	1200 12TH ST E		
Site County:	OAKLAND, CA ALAMEDA		
Date Entered:	3/2/99		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	LEAK CONFIRMED; A LAB REPORT RECEIVED CONFIRMING A LEAK/SPILL FROM A TANK.		
Maximum MTBE	0		
Current MTBE	ND		
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1)		

VISTA Address*:	GIBSON PAINT COMPANY 1199 E. 12TH ST. OAKLAND, CA 94606	VISTA ID#:	171090
		Distance/Direction:	0.14 MI / N
		Plotted as:	Point

Map ID
4B

STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:	GIBSON PAINT CO. 1199 E 12TH OAKLAND, CA 94606		
Facility Name:	GIBSON PAINT CO.		
Facility Address:	1199 E 12TH OAKLAND, CA 94606		
Facility County:	01000		



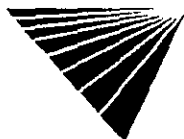
SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Total Underground Tanks:	2
Total Aboveground Tanks:	NOT REPORTED
Total Tanks Removed:	2
Tank ID #:	600017U
Tank Contents:	UNKNOWN
Tank Age:	0
Tank Capacity:	3000 GALLONS
Tank Status:	CLOSED REMOVED
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	BARE STEEL
Tank ID #:	600017U
Tank Contents:	UNKNOWN
Tank Age:	0
Tank Capacity:	6000 GALLONS
Tank Status:	CLOSED REMOVED
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	BARE STEEL

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-0699
Agency Address:	GIBSON PAINT COMPANY SCREEN PROCESS 1199 12TH ST E OAKLAND, CA 0		
Case ID #:	01-0699		
Site Name:	GIBSON PAINT COMPANY SCREENPROCESS		
Site Address:	1199 12TH ST E OAKLAND, CA		
Site County:	ALAMEDA		
Date Entered:	12/14/90		
Maximum Soil	330		
Maximum Groundwater	55000		
Current Benzene	ND		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	CASE CLOSED - REGIONAL BOARD (AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.		
Fields Not Reported by the Source	MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		
Agency for this Site:			

VISTA Address*:	GIBSON PAINT COMPANY SCREEN PROCESS 1199 12TH ST E OAKLAND, CA 94606	VISTA ID#:	67009542
		Distance/Direction:	0.14 MI / N
		Plotted as:	Point
STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE		
Site Name:	GIBSON PAINT COMPANY SCREENPROCESS		

Map ID
4B



* VISTA address includes enhanced city and ZIP.

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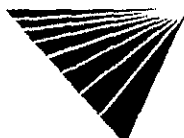
SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Site Location:	1199 12TH ST E OAKLAND CA 94606-
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-0699
Local Case ID #:	235
Media Affected:	OTHER GROUNDWATER
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status:	CASE CLOSED
Substance Leaked:	GASOLINE
Abatement Method	EDET CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type:	NONE TAKEN
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped:	CLOSE TANK
MTBE Tested	SITE NOT TESTED FOR MTBE
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	STRUCTRE FAILURE
Source of Leak	TANK
Longitude:	37.7898531
Latitude:	-122.2490191
Summary:	2/10 WIR, VARIOUS CLHC IN MW3. REQ TO CC--1/8/98. . . CASE CLOSED 3/10/98 BY ACHD
Date Preliminary Site Assessment Workpla	11/21/90
Date Preliminary Site Assessment Began	8/28/91
Date Case was Closed	3/10/98
Date Leak was Discovered:	6/28/90
Reported Date:	6/28/90
Date Leak was Stopped:	6/28/90
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Media Affected(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Leak was Confirmed(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date of Enforcement Action(1), MTBE Date(1)

VISTA Address*:	GLASS ON THE MOVE 1111 E. 12TH ST OAKLAND, CA 94606	VISTA ID#:	3781150
		Distance/Direction:	0.17 MI / N
		Plotted as:	Point
STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	GLASS ON THE MOVE 1111 12TH ST E OAKLAND, CA 94606		
Site Name:	GLASS ON THE MOVE		

Map ID

4C



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

Report ID: 345001901

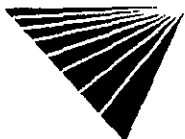
Date of Report: October 30, 2001

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SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Site Location:	1111 12TH ST E OAKLAND CA 94606- ALAMEDA
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-0703
Local Case ID #:	3677
Media Affected	SOIL ONLY
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	CASE CLOSED
Substance Leaked:	GASOLINE
Abatement Method	ET CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED 13267 LETTERS FOR ENFORCEMENT
Enforcement Type:	FEDERAL FUNDS
Funding By:	TANK CLOSURE
How was Leak Discovered	CLOSE TANK
How was Leak Stopped:	SITE NOT TESTED FOR MTBE
MTBE Tested	LOCAL OVERSIGHT PROGRAM UST
Program Type	BLANK RP
Responsible Party:	STRUCTRE FAILURE
Cause of Leak	TANK
Source of Leak	37.7904571
Longitude:	-122.2496751
Latitude:	ARCHIVED 6/6/96 CONTROL NO 120-080 SRC 0904730
Summary:	
Date Preliminary Site Assessment Workpla	11/25/91
Date Case was Closed	3/27/95
Date Leak was Discovered:	7/15/90
Date of Enforcement Action	2/24/92
Reported Date:	9/16/91
Date Leak was Stopped:	7/15/90
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Leak was Confirmed(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), MTBE Date(1)
STATE LUST - State Leaking Underground Storage Tank / SRC# 853	
Agency Address:	GLASS ON THE MOVE 1111 12TH ST E OAKLAND, CA 0
Case ID #:	01-0703
Site Name:	GLASS ON THE MOVE
Site Address:	1111 12TH ST E OAKLAND, CA
Site County:	ALAMEDA
Agency ID:	01-0703



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Date Entered:	1/29/92
Maximum Soil	1300
Substance Leaked:	NOT REPORTED
Media Affected:	NOT REPORTED
Discovery Date:	NOT REPORTED
Site Status:	CASE CLOSED; REGIONAL BOARD (AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.
Fields Not Reported by the Source Agency for this Site:	Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)

VISTA Address*:	ROSE EXTERMINATOR CO 1512 E 12TH OAKLAND, CA 94606	VISTA ID#:	4016400
		Distance/Direction:	0.13 MI / E
		Plotted as:	Point

Map ID
5

STATE UST - State Underground Storage Tank / SRC# 45 EPA/Agency ID: N/A

Agency Address:	ROSE EXTERMINATOR CO 1512 E 12TH OAKLAND, CA 94601
Facility Name:	ROSE EXTERMINATOR CO
Facility Address:	1512 E 12TH OAKLAND, CA 94601
Facility County:	01000
Total Underground Tanks:	1
Total Aboveground Tanks:	NOT REPORTED
Total Tanks Removed:	0
Tank ID #:	T001U
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	1000 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN

VISTA Address*:	MODERN AUTO BODY 1518 E. 12TH ST OAKLAND, CA 94606	VISTA ID#:	7810351
		Distance/Direction:	0.13 MI / E
		Plotted as:	Point

Map ID
5

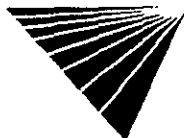
STATE LUST - State Leaking Underground Storage Tank / SRC# 164 EPA/Agency ID: N/A

Agency Address:	MODERN AUTO BODY 1518 12TH ST E OAKLAND, CA 94606
Site Name:	MODERN AUTO BODY
Site Location:	1518 12TH ST E OAKLAND CA 94606-
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-0506
Local Case ID #:	3140



SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Media Affected	SOIL ONLY
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	CASE CLOSED
Substance Leaked:	GASOLINE
Abatement Method	ED
Enforcement Type:	CODE LOOKUP· CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATEAND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENTAT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Funding By:	NONE TAKEN
How was Leak Discovered	FEDERAL FUNDS
How was Leak Stopped:	TANK CLOSURE
MTBE Tested	CLOSE TANK
Program Type	SITE NOT TESTED FOR MTBE
Repsonsible Party:	LOCAL OVERSIGHT PROGRAM UST
Cause of Leak	BLANK RP
Source of Leak	STRUCTRE FAILURE
Longitude:	TANK
Latitude:	37.7880091
Summary:	-122.245665
Date Preliminary Site Assessment Workpla	REQ CASE CLOSURE 10/8/96...CASE CLOSED 01/15/97...
Date Case was Closed	10/19/90
Date Leak was Discovered:	1/15/97
Reported Date:	9/27/90
Date Leak was Stopped:	8/1/89
Fields Not Reported by the Source Agency for this Site:	9/27/90
<i>Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Leak was Confirmed(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date of Enforcement Action(1), MTBE Date(1)</i>	
STATE LUST - State Leaking Underground Storage Tank / SRC# 853	
Agency Address:	Agency ID: 01-0506
Case ID #:	MODERN AUTO BODY
Site Name:	1518 12TH ST E
Site Address:	OAKLAND, CA 0
Site County:	01-0506
Date Entered:	MODERN AUTO BODY
Maximum Soil	1518 12TH ST E
Substance Leaked:	OAKLAND, CA
Media Affected:	ALAMEDA
Discovery Date:	12/10/90
Site Status:	646
	NOT REPORTED
	NOT REPORTED
	NOT REPORTED
	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCETHAT NO FURTHER ACTION IS NECESSARY AT THE SITE.



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

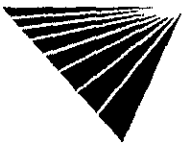
Fields Not Reported by the Source Agency for this Site:

Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)

VISTA Address*:	OAKLAND FIRE STATION #4 1235 E. 14TH ST OAKLAND, CA 94606	VISTA ID#:	6320314
		Distance/Direction:	0.14 MI / N.
		Plotted as:	Point
STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A

Map ID
6

Agency Address:	OAKLAND FIRE STATION #4 1235 14TH ST E OAKLAND, CA 94606
Site Name:	OAKLAND FIRE STATION #4
Site Location:	1235 14TH ST E OAKLAND CA 94606-
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-1838
Local Case ID #:	4606
Media Affected	SOIL ONLY
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	CASE CLOSED
Substance Leaked:	DIESEL
Abatement Method	ED CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type:	13267 LETTERS FOR ENFORCEMENT
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped:	CLOSE TANK
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	UNKNOWN
Source of Leak	TANK
Longitude:	37.7902491
Latitude:	-122.2477871
Summary:	LOP UPDATE--10/21/93; MAXSOIL TPH-D, CASE CLOSURE SUMMARY IN FILE, REQ CASE CLOSURE 9/28/95 CASE CLOSED 02/04/97
Date Leak was Confirmed	1/25/96
Date Case was Closed	2/5/97
Date Leak was Discovered:	9/10/93
Date of Enforcement Action	9/10/93
Reported Date:	9/10/93
Date Leak was Stopped:	9/10/93



SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

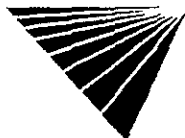
Fields Not Reported by the Source Agency for this Site:	<i>Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), MTBE Date(1)</i>
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STATE LUST - State Leaking Underground Storage Tank / SRC# 853	Agency ID:	01-1838
Agency Address:	OAKLAND FIRE STATION #4 1235 14TH ST E OAKLAND, CA 0	
Case ID #:	01-1838	
Site Name:	OAKLAND FIRE STATION #4	
Site Address:	1235 14TH ST E	
Site County:	OAKLAND, CA ALAMEDA	
Date Entered:	11/9/93	
Maximum Soil Substance Leaked:	1600 NOT REPORTED	
Media Affected:	NOT REPORTED	
Discovery Date:	NOT REPORTED	
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCETHAT NO FURTHER ACTION IS NECESSARY AT THE SITE.	

Fields Not Reported by the Source Agency for this Site:	<i>Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)</i>
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VISTA Address*:	VACANT LOT 1515 14TH AVE OAKLAND, CA 94606	VISTA ID#:	11498353	Map ID 7
		Distance/Direction:	0.21 MI / NE	
		Plotted as:	Point	

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE	
Site Name:	VACANT LOT	
Site Location:	1515 14TH AVE	
Site County:	OAKLAND CA 94606- ALAMEDA	
Water Quality Control Board Region:	02	
Case ID #:	01-1843	
Local Case ID #:	2251	
Media Affected:	UNDEFINED	
Lead Agency:	LOCAL AGENCY LEAD	
Remediation Status:	CASE CLOSED	
Substance Leaked:	WASTE OIL	
Abatement Method:	EDET	
Enforcement Type:	CODE LOOKUP. CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATEAND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENTAT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED	
Funding By:	13267 LETTERS FOR ENFORCEMENT	
How was Leak Discovered:	FEDERAL FUNDS	
	SUBSURFACE MONITORING	



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SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

How was Leak Stopped:	CLOSE TANK
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Repsonsible Party:	BLANK RP
Cause of Leak	UNKNOWN
Source of Leak	TANK
Longitude:	37.7900381
Latitude:	-122.245418
Summary:	ARCHIVED 6/6/96 CONTROL NO 120-092 SRC 0904742
Date Leak was Confirmed	7/22/93
Date Case was Closed	7/6/94
Date Leak was Discovered:	2/20/93
Date of Enforcement Action	7/22/93
Reported Date:	7/19/93
Date Leak was Stopped:	2/20/93
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-1843
Agency Address:	VACANT LOT 1515 14TH AVE OAKLAND, CA 0		
Case ID #:	01-1843		
Site Name:	VACANT LOT		
Site Address:	1515 14TH AVE		
Site County:	OAKLAND, CA ALAMEDA		
Date Entered:	8/11/93		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.		
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		

VISTA Address*:	GOODWILL CAB CO INC 1632 E 14TH OAKLAND, CA 94606	VISTA ID#:	4016477
		Distance/Direction:	0.24 MI / E
		Plotted as:	Point

Map ID
8

STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE		
Facility Name:	GOODWILL CAB CO INC		
Facility Address:	1632 E 14TH OAKLAND, CA 94606		
Facility County:	01000		
Total Underground Tanks:	3		



SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Total Aboveground Tanks:	NOT REPORTED
Total Tanks Removed:	0
Tank ID #:	T001U
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	3000 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN
Tank ID #:	T001U
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	3000 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN
Tank ID #:	T001U
Tank Contents:	UNLEADED GAS
Tank Age:	0
Tank Capacity:	5000 GALLONS
Tank Status:	ACTIVE/IN SERVICE
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN

VISTA Address*:	BLDG. P-323 1755 EMBARCADERO OAKLAND, CA 94606	VISTA ID#:	1252820
		Distance/Direction:	0.24 MI / SE
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 45		EPA/Agency ID:	N/A

Map ID
9

Agency Address:	SAME AS ABOVE
Facility Name:	BLDG P-323
Facility Address:	1755 EMBARCADERO OAKLAND, CA 94606
Facility County:	01000THOMA
Total Underground Tanks:	2
Total Aboveground Tanks:	NOT REPORTED
Total Tanks Removed:	2
Tank ID #:	58297.01
Tank Contents:	OTHER
Tank Age:	0
Tank Capacity:	1000 GALLONS



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

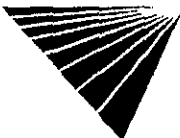
Tank Status:	CLOSED REMOVED
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN
Tank ID #:	58297.01
Tank Contents:	OTHER
Tank Age:	0
Tank Capacity:	10000 GALLONS
Tank Status:	CLOSED REMOVED
Leak Monitor:	MONITOR PRESENT
Piping Type:	UNKNOWN
Tank Material:	UNKNOWN

SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)

VISTA Address*:	USDOT CG TWELFTH DIST FLP CG GOVNMT ISL ALAMEDA, CA 94501	VISTA ID#:	5241062
		Distance/Direction:	0.29 MI / S
		Plotted as:	Point
NFRAP / SRC# 18		Agency ID:	0903445
Agency Address:	12TH COAST GUARD DISTRICT GOVERNMENT ISLAND ALAMEDA, CA 94501 CA7690390037		
EPA ID:	0903445		
Site ID:	09		
EPA Region:	18050004		
USGS Hydrologic Unit Code:	FEDERALLY OWNED		
Ownership Type:	FEDERAL FACILITY		
Federal Facility Indicator:	NOT ON THE NPL		
NPL Status:	LISTED ON THE HAZARDOUS WASTE DOCKET		
Hazardous Waste Docket Flag:	DISCOVERY		
Action:	FEDERAL FACILITIES		
Action Lead:	JUNE 30, 1987		
Scheduled Completion Date:	JUNE 1, 1987		
Actual Completion Date:	PRELIMINARY ASSESSMENT		
Action:	NFRAP (NO FUTHER REMEDIAL ACTION PLANNED)		
Action Qualifier:	FEDERAL FACILITIES		
Action Lead:	SEPTEMBER 30, 1992		
Scheduled Completion Date:	JULY 7, 1992		
Actual Completion Date:	00		
Operable Unit ID:	SITEWIDE		
Operable Unit Name:	101		
Alias ID:	US COAST GUARD SUPPORT CENTER, ALAMEDA		
Alias Name:	CA		

Map ID

10



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Fields Not Reported by the Source Agency for this Site: *Financial Management System ID(1), Site Incident Category Description(1), Action Qualifier(1), Scheduled Start Date(2), Actual Start Date(2), Description(1), (1), (1), (1), Address(1)*

VISTA Address*:	USCG SUPPORT CENTER COAST GUARD ISLAND ALAMEDA, CA 0	VISTA ID#:	65401070
		Distance/Direction:	0.30 MI / S
		Plotted as:	Point

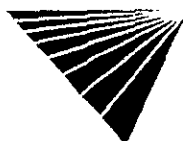
Map ID
10

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-1786
Agency Address:	SAME AS ABOVE		
Case ID #:	01-1786		
Site Name:	USCG SUPPORT CENTER		
Site Address:	COAST GUARD ISLAND		
Site County:	ALAMEDA, CA ALAMEDA		
Date Entered:	6/15/93		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.		
Maximum MTBE	18		
Current MTBE	18		
Fields Not Reported by the Source Agency for this Site:	<i>Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1)</i>		

VISTA Address*:	USCG SUPPORT CENTER UNKNOWN COAST GUARD ISLAND ALAMEDA, CA 94501	VISTA ID#:	64542672
		Distance/Direction:	0.31 MI / S
		Plotted as:	Point

Map ID
10

STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE		
Site Name:	USCG SUPPORT CENTER		
Site Location:	UNKNOWN COAST GUARD ISLAND		
Site County:	ALAMEDA CA 94501- ALAMEDA		
Water Quality Control Board Region:	02		
Case ID #:	01-1786		
Local Case ID #:	2911		
Media Affected	OTHER GROUNDWATER		
Lead Agency:	LOCAL AGENCY LEAD		
Remediation Status	CASE CLOSED		
Substance Leaked:	GASOLINE		
	CODE LOOKUP. CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW-RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED		
Enforcement Type:	13267 LETTERS FOR ENFORCEMENT		
Funding By:	FEDERAL FUNDS		



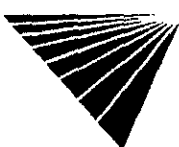
SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

How was Leak Discovered	TANK CLOSURE
How was Leak Stopped:	CLOSE TANK
MTBE Tested	MTBE DETECTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Repsonsible Party:	BLANK RP
Cause of Leak	STRUCTRE FAILURE
Source of Leak	TANK
Longitude:	37.7680827
Latitude:	-122.2595313
Summary:	ARCHIVED 6/6/96 CONTROL NO 120-092 SRC 0904742
Date Leak was Confirmed	9/11/97
Date Case was Closed	12/13/00
Date Leak was Discovered:	9/10/97
Date of Enforcement Action	5/14/93
MTBE Date	UNKNOWN
Reported Date:	12/12/90
Date Leak was Stopped:	9/10/97
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Media Affected(1), Remediation Status(1), Abatement Method(1), How was Leak Discovered(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1)

VISTA Address*:	CHRISTIAN INTERNATIONAL CHURCH 1832 12TH ST E OAKLAND, CA 94606	VISTA ID#:	11498345
		Distance/Direction:	0.30 MI / E
		Plotted as:	Point

Map ID
11

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE	
Site Name:	CHRISTIAN INTERNATIONAL CHURCH	
Site Location:	1832 12TH ST E	
Site County:	OAKLAND CA 94606- ALAMEDA	
Water Quality Control Board Region:	02	
Case ID #:	01-2067	
Local Case ID #:	4876	
Media Affected	SOIL ONLY	
Lead Agency:	LOCAL AGENCY LEAD	
Remediation Status	CASE CLOSED	
Substance Leaked:	GASOLINE	
Abatement Method	GT	
	CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATEAND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENTAT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED	
Funding By:	FEDERAL FUNDS	
How was Leak Discovered	OTHER MEANS	



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

How was Leak Stopped: OTHER MEANS
 MTBE Tested: SITE NOT TESTED FOR MTBE
 Program Type: LOCAL OVERSIGHT PROGRAM UST
 Repsonsible Party: BLANK RP
 Cause of Leak: UNKNOWN
 Source of Leak: UNKNOWN
 Longitude: 37.7861301
 Latitude: -122.2422739
 Summary: ARCHIVED 6/6/96 CONTROL NO 120-094 SRC 0904744
 Date Leak was Confirmed: 3/31/95
 Date Case was Closed: 3/26/96
 Date Leak was Discovered: 2/14/91
 Reported Date: 2/20/91
 Date Leak was Stopped: 2/14/91

Fields Not Reported by the Source Agency for this Site: Cross Street(1), Remediation Status(1), Enforcement Type(1), How was Leak Discovered(1), How was Leak Stopped(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date of Enforcement Action(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# B53	Agency ID:	01-2067
Agency Address:	CHRISTIAN INTERNATIONAL CHURCH 1832 12TH ST E OAKLAND, CA 0	
Case ID #:	01-2067	
Site Name:	CHRISTIAN INTERNATIONAL CHURCH	
Site Address:	1832 12TH ST E OAKLAND, CA ALAMEDA	
Site County:	ALAMEDA	
Date Entered:	5/16/95	
Maximum Soil	6	
Maximum Groundwater	ND	
Current Benzene	ND	
Substance Leaked:	NOT REPORTED	
Media Affected:	NOT REPORTED	
Discovery Date:	NOT REPORTED	
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCETHAT NO FURTHER ACTION IS NECESSARY AT THE SITE.	
Fields Not Reported by the Source Agency for this Site:	MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)	

VISTA Address*:	SALLE'S PAINT BODY 1049 9TH AVENUE OAKLAND, CA 94606	VISTA ID#:	365929
		Distance/Direction:	0.32 MI / NW
		Plotted as:	Point

Map ID
12

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	SALLE'S PAINT BODY SHOP 1049 9TH AVE OAKLAND, CA 94606	
Site Name:	SALLE'S PAINT BODY SHOP	



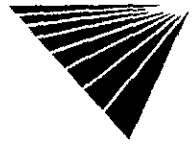
SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Site Location: 1049 9TH AVE
 OAKLAND CA 94606-
Site County: ALAMEDA
Water Quality Control Board Region: 02
Case ID #: 01-2402
Local Case ID #: 233
Media Affected: UNDEFINED
Lead Agency: LOCAL AGENCY LEAD
Remediation Status: LEAK BEING CONFIRMED
Substance Leaked: DIESEL
 CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Funding By: FEDERAL FUNDS
How was Leak Discovered: TANK CLOSURE
How was Leak Stopped: CLOSE TANK
MTBE Tested: NOT REQUIRED TO BE TESTED
Program Type: LOCAL OVERSIGHT PROGRAM UST
Responsible Party: BLANK RP
Cause of Leak: UNKNOWN
Source of Leak: UNKNOWN
Longitude: 37.7913031
Latitude: -122.2530062
Summary: NEW CASE PER ACHD UPDATE - 9/98.
Date Leak was Confirmed: 11/16/93
Date Leak was Discovered: 9/6/94
Reported Date: 9/6/94
Date Leak was Stopped: 9/6/94

Fields Not Reported by the Source Agency for this Site: Cross Street(1), Abatement Method(1), Enforcement Type(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853 Agency ID: 01-2402

Agency Address: SALLE'S PAINT BODY SHOP
 1049 9TH AVE
 OAKLAND, CA 0
Case ID #: 01-2402
Site Name: SALLE'S PAINT BODY SHOP
Site Address: 1049 9TH AVE
 OAKLAND, CA
 ALAMEDA
Site County: ALAMEDA
Date Entered: 9/28/98
Substance Leaked: NOT REPORTED
Media Affected: NOT REPORTED
Discovery Date: NOT REPORTED



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

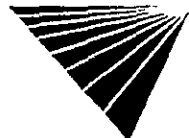
Site Status:	LEAK CONFIRMED: A LAB REPORT RECEIVED CONFIRMING A LEAK/SPILL FROM A TANK.
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)

VISTA Address*:	LIQUID CARBONIC SPEC GAS CORP 901 EMBARCADERO ST OAKLAND, CA 94606	VISTA ID#:	245989
		Distance/Direction:	0.33 MI / W
		Plotted as:	Point
NFRAP / SRC# 18		Agency ID:	0903630

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Agency Address:	LIQUID CARBONIC CORP 901 EMBARCADERO OAKLAND, CA 94606
EPA ID:	CAD009156662
Site ID:	0903630
EPA Region:	09
USGS Hydrologic Unit Code:	18050004
Ownership Type:	PRIVATE
Federal Facility Indicator:	NOT A FEDERAL FACILITY
NPL Status:	NOT ON THE NPL
Hazardous Waste Docket Flag:	NOT ON THE HAZARDOUS WASTE DOCKET
Action:	DISCOVERY
Action Lead:	STATE, FUND FINANCED
Actual Completion Date:	DECEMBER 1, 1987
Action:	PRELIMINARY ASSESSMENT
Action Qualifier	NFRAP (NO FUTURE REMEDIAL ACTION PLANNED)
Action Lead:	STATE, FUND FINANCED
Actual Completion Date:	NOVEMBER 1, 1989
Operable Unit ID:	00
Operable Unit Name:	SITEWIDE
Fields Not Reported by the Source Agency for this Site:	Financial Management System ID(1), Site Incident Category Description(2), Action Qualifier(1), Scheduled Start Date(2), Scheduled Completion Date(2), Actual Start Date(2), (1), (1), (1)

SCL - State Equivalent CERCLIS List / SRC# 112	Agency ID:	01280015
Agency Address:	LIQUID CARBONIC CORPORATION 901 EMBARCADERO OAKLAND, CA 94606	
Agency ID:	01280015	
Facility Name:	LIQUID CARBONIC CORPORATION	
Facility Address:	901 EMBARCADERO OAKLAND, CA. 94606	
Region:	BERKELEY	
County:	ALAMEDA	
Branch:	NORTH COAST	
Status Date:	03141995	
Status:	REFOA	
Status Description:	PROPERTY/SITE REFERRED TO ANOTHER AGENCY	
Lead Agency:	N/A	
Type Name:	N/A	
SIC Number:	28	



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

SIC Name:	MANU - CHEMICALS ALLIED PRODUCTS
Water Control Board Region:	SAN FRANCISCO BAY
Access:	C
Number of Sources:	0
Latitude:	0-DEG, 0-MIN, 0-SEC
Latitude Direction:	NOT REPORTED
Longitude:	0-DEG, 0-MIN, 0-SEC
Longitude Direction:	NOT REPORTED
Alternate Address:	901 EMBARCADERO OAKLAND, CA. 94606
Alternate Name:	LIQUID CARBONIC CORPORATION
Special Program:	CERC2
Special Name:	CERCLA II
Comment Key:	3
Activity Number:	PA
Completion Date:	10041988
Estimated Years to Finish:	0
Status at Start:	PROPERTY/SITE REFERRED TO ANOTHER AGENCY
Cubic Yards Removed:	0
Gallons Removed:	0
Yards Treated:	0
Gallons Treated:	0
Comment Key:	2
Activity Number:	SS
Completion Date:	04211987
Estimated Years to Finish:	0
Status at Start:	PROPERTY/SITE REFERRED TO ANOTHER AGENCY
Cubic Yards Removed:	0
Gallons Removed:	0
Yards Treated:	0
Gallons Treated:	0
Comment Key:	1
Activity Number:	DISC
Type of Activity:	DISCOVERY
Completion Date:	03151980
Estimated Years to Finish:	0
Status at Start:	PROPERTY/SITE REFERRED TO ANOTHER AGENCY
Cubic Yards Removed:	0
Gallons Removed:	0
Yards Treated:	0
Gallons Treated:	0
Agency ID:	01280015



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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Comments: INDUSTRIAL WASTE QUEST, SENT 2/21/80 FACILITY IDENTIFIED QUESTIONNAIRE SENT QUEST. RECEIVED INSPECTION (STATE) SITE INSPECTION FINAL STRATEGY SITE REFERRED: TO HWMB/ENF INSPECTION (OTHER) ALAMEDA CO HAZ WST PPDJECT -NO VIOL SITE SCREENING DONE DUMPING OF OIL RESIDUE TO SOIL, SOIL IS DISCOLORED. LINED ACETYLENE POND FREQLY OVERFLOWED. INSPECTION (OTHER) BAY AREA AIR QUALITY MNGMT DIST - NO VIO FACILITY DRIVE-BY POND AND STAINED SOIL NOT VISIBLE PRELIM ASSESS DONE SI LOW: UNKNOWN CONTAMINANTS WERE DOCUMENTED AND WASTEWATER PONDS WERE ALSO OBSERVED FAC OWNED BY HOUSTON NATURAL GAS OF TX SUBMIT TO EPA NFA: BASED ON READILY AVAILABLE INFO; FAC WILL NOT SCORE AS AN NPL CANDIDATE

Fields Not Reported by the Source Agency for this Site: NPL(1), Tier(1), Fund(1), Cortese(1), Hazard Ranking Score(1), Hazard Ranking Date(1), Groundwater(1), Type of Activity(2), Comment Description(3)

STATE LUST - State Leaking Underground Storage Tank / SRC# 164 EPA/Agency ID: N/A

Agency Address: LIQUID CARBONIC CORP
901 EMBARCADERO
OAKLAND, CA 94606

Site Name: LIQUID CARBONIC CORP

Site Location: 901 EMBARCADERO
OAKLAND CA 94606-

Site County: ALAMEDA

Water Quality Control Board Region: 02

Case ID #: 01-0916

Local Case ID #: 220

Media Affected: OTHER GROUNDWATER

Lead Agency: LOCAL AGENCY LEAD

Remediation Status: CASE CLOSED

Substance Leaked: GASOLINE

Abatement Method: ETED

Enforcement Type: NONE TAKEN

Funding By: FEDERAL FUNDS

How was Leak Discovered: TANK CLOSURE

How was Leak Stopped: CLOSE TANK

MTBE Tested: SITE NOT TESTED FOR MTBE

Program Type: LOCAL OVERSIGHT PROGRAM UST

Responsible Party: BLANK RP

Cause of Leak: STRUCTRE FAILURE

Source of Leak: TANK

Longitude: 37.798627

Latitude: -122.2851046

Summary: SS ONLY: TPH=1300000PPM B=36000PPM. REQ. CASE CLOSURE 11/04/96..CASE CLOSED. 11/14/96. THIS SITE IS NOT CLOSED. ACHSA REQUESTS WP (12/4/00).

Date Preliminary Site Assessment Workpla: 4/27/90

Date Case was Closed: 1/25/97

Date Leak was Discovered: 1/12/90

Reported Date: 2/6/90



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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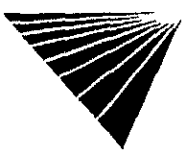
SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Date Leak was Stopped:	1/12/90
Fields Not Reported by the Source	Cross Street(1), Media Affected(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1)
Agency for this Site:	
STATE LUST - State Leaking Underground Storage Tank / SRC# 853	Agency ID: 01-0916
Agency Address:	LIQUID CARBONIC CORP 901 EMBARCADERO OAKLAND, CA 0
Case ID #:	01-0916
Site Name:	LIQUID CARBONIC CORP
Site Address:	901 EMBARCADERO OAKLAND, CA ALAMEDA
Site County:	ALAMEDA
Date Entered:	5/25/90
Maximum Soil	130000
Maximum Groundwater	66000
Substance Leaked:	NOT REPORTED
Media Affected:	NOT REPORTED
Discovery Date:	NOT REPORTED
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.
Fields Not Reported by the Source	Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)
Agency for this Site:	

VISTA Address*:	J R USED AUTO PARTS 823 E. 12TH ST OAKLAND, CA 94606	VISTA ID#:	3065439
		Distance/Direction:	0.37 MI / NW
		Plotted as:	Point

Map ID
14

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID: N/A
Agency Address:	JR USED AUTO PARTS 823 12TH ST E OAKLAND, CA 94606
Site Name:	JR USED AUTO PARTS
Site Location:	823 12TH ST E OAKLAND CA 94606- ALAMEDA
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-0806
Local Case ID #:	01-0806
Media Affected	SOIL ONLY
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	LEAK BEING CONFIRMED
Substance Leaked:	MINERAL SPIRITS
Abatement Method	NT
Enforcement Type	NONE TAKEN
Funding By:	FEDERAL FUNDS



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	STRUCTRE FAILURE
Source of Leak	TANK
Longitude:	37.792566
Latitude:	-122.2520532
Summary:	9/18 RFWP, 27000 PPM LEAD INSOIL
Date Leak was Confirmed	9/23/91
Date Leak was Discovered:	9/23/91
Reported Date:	9/23/91
Date Leak was Stopped:	9/23/91
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853 Agency ID: 01-0806

Agency Address:	JR USED AUTO PARTS 823 12TH ST E OAKLAND, CA 0 01-0806
Case ID #:	
Site Name:	JR USED AUTO PARTS
Site Address:	823 12TH ST E OAKLAND, CA ALAMEDA
Site County:	
Date Entered:	10/11/91
Maximum Soil	187000
Substance Leaked:	NOT REPORTED
Media Affected:	NOT REPORTED
Discovery Date:	NOT REPORTED
Site Status:	LEAK CONFIRMED: A LAB REPORTRECEIVED CONFIRMING A LEAK/SPILL FROM A TANK.
Fields Not Reported by the Source Agency for this Site:	Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)

VISTA Address*:	1X CAKEBREAD GARAGE 802 E. 12TH ST OAKLAND, CA 94606	VISTA ID#:	6604086
		Distance/Direction:	0.38 MI / NW
		Plotted as:	Point

Map ID
14

STATE LUST - State Leaking Underground Storage Tank / SRC# 164 EPA/Agency ID: N/A

Agency Address:	CAKEBREAD'S GARAGE INC 802 12TH ST E OAKLAND, CA 94606
Site Name:	CAKEBREAD'S GARAGE INC
Site Location:	802 12TH ST E OAKLAND CA 94606-
Site County:	ALAMEDA



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

Report ID: 345001901

Date of Report: October 30, 2001

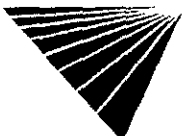
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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Water Quality Control Board Region:	02
Case ID #:	01-0492
Local Case ID #:	200
Media Affected	OTHER GROUNDWATER
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	CASE CLOSED
Substance Leaked:	GASOLINE
Abatement Method	ED
	CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type	13267 LETTERS FOR ENFORCEMENT
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	SITE NOT TESTED FOR MTBE
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	STRUCTRE FAILURE
Source of Leak	TANK
Longitude:	37.792858
Latitude:	-122.2520102
Summary:	ARCHIVED 6/6/96 CONTROL NO 120-077 SRC 0904727
Date Leak was Confirmed	6/16/93
Date Case was Closed	6/9/95
Date Leak was Discovered:	11/16/90
Date of Enforcement Action	12/27/91
Reported Date:	4/7/89
Date Leak was Stopped:	11/16/90
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Media Affected(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-0492
Agency Address:	CAKEBREAD'S GARAGE INC 802 12TH ST E OAKLAND, CA 0		
Case ID #:	01-0492		
Site Name:	CAKEBREAD'S GARAGE INC		
Site Address:	802 12TH ST E OAKLAND, CA		
Site County:	ALAMEDA		
Date Entered:	3/24/93		
Maximum Soil	6100		
Maximum Groundwater	130000		



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Current Benzene	ND
Substance Leaked:	NOT REPORTED
Media Affected:	NOT REPORTED
Discovery Date:	NOT REPORTED
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.
Fields Not Reported by the Source	MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)
Agency for this Site:	

VISTA Address*:	BUILDING H-232, PORT OF OAKLAND 845 EMBARCADERO OAKLAND, CA 94606	VISTA ID#:	3078297
		Distance/Direction:	0.39 MI / W
		Plotted as:	Point

Map ID
15

NFRAP / SRC# 18	Agency ID:	0900314
Agency Address:	SAME AS ABOVE	
EPA ID:	CAD000098806	
Site ID:	0900314	
EPA Region:	09	
USGS Hydrologic Unit Code:	18050004	
Ownership Type:	PRIVATE	
Federal Facility Indicator:	NOT A FEDERAL FACILITY	
NPL Status:	NOT ON THE NPL	
Hazardous Waste Docket Flag:	NOT ON THE HAZARDOUS WASTE DOCKET	
Action:	DISCOVERY	
Action Lead:	EPA FUND-FINANCED	
Scheduled Completion Date	MARCH 31, 1991	
Actual Completion Date:	JANUARY 1, 1991	
Action:	PRELIMINARY ASSESSMENT	
Action Qualifier	NFRAP (NO FUTURE REMEDIAL ACTION PLANNED)	
Action Lead:	EPA FUND-FINANCED	
Scheduled Completion Date	MARCH 31, 1992	
Actual Completion Date:	FEBRUARY 7, 1992	
Operable Unit ID:	00	
Operable Unit Name:	SITEWIDE	
Alias ID:	101	
Alias Name:	MIDLAND ROSS CORP, METAL FRAMING DIV. CA	
Fields Not Reported by the Source	Financial Management System ID(1), Site Incident Category Description(1), Action Qualifier(1), Scheduled Start Date(2), Actual Start Date(2), Description(1), (1), (1), (1), Address(1)	
Agency for this Site:		

VISTA Address*:	CANNEY BLDG H 211 845 EMBARCADERO OAKLAND, CA 94606	VISTA ID#:	12639645
		Distance/Direction:	0.39 MI / W
		Plotted as:	Point

Map ID
15

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE	
Site Name:	CANNEY BLDG H 211	
Site Location:	845 EMBARCADERO OAKLAND CA 94606-	



* VISTA address includes enhanced city and ZIP.

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Report ID: 345001901

Date of Report: October 30, 2001

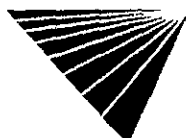
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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-2423
Local Case ID #:	225
Media Affected	UNDEFINED
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED
Substance Leaked:	DIESEL
	CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type	NONE TAKEN
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	UNKNOWN
Source of Leak	UNKNOWN
Longitude:	37.7890411
Latitude:	-122.2566492
Summary:	NEW CASE PER ACHD UPDATE - 9/98.
Date Leak was Confirmed	10/30/97
Date Preliminary Site Assessment Workpla	UNKNOWN
Date Leak was Discovered:	8/30/96
Reported Date:	8/30/96
Date Leak was Stopped:	8/30/96
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), Abatement Method(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853	Agency ID:	01-2423
Agency Address:	CANNEY BLDG H 211 845 EMBARCADERO OAKLAND, CA 0	
Case ID #:	01-2423	
Site Name:	CANNEY BLDG H 211	
Site Address:	845 EMBARCADERO	
Site County:	OAKLAND, CA ALAMEDA	
Date Entered:	9/30/98	
Substance Leaked:	NOT REPORTED	
Media Affected:	NOT REPORTED	



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

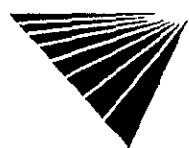
Discovery Date:	NOT REPORTED
Site Status:	PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED: A WORKPLAN AND IMPLEMENTATION SCHEDULE HAS BEEN SUBMITTED TO DETERMINE IF THE GROUNDWATER HAS BEEN OR WILL BE IMPACTED. THIS PLAN INCLUDES THE INSTALLATION OF MONITORING WELLS.
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)

VISTA Address*:	SOUTHERN PACIFIC RAILYARD UNKNOWN 8TH ST E 8TH AVE OAKLAND, CA 94607	VISTA ID#:	64570494
		Distance/Direction:	0.40 MI / NW
		Plotted as:	Point

Map ID
16

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
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Agency Address:	SAME AS ABOVE
Site Name:	SOUTHERN PACIFIC RAILYARD
Site Location:	UNKNOWN 8TH ST E 8TH AVE OAKLAND CA 94607-
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-1406
Local Case ID #:	01-1406
Media Affected	UNDEFINED
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	PRELIMINARY SITE ASSESSMENT UNDERWAY
Substance Leaked:	DIESEL
Abatement Method	GT CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type	NONE TAKEN
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	STRUCTRE FAILURE
Source of Leak	TANK
Longitude:	37.8023699
Latitude:	-122.2814495
Summary:	PLAN TO PUMP TREAT EXCAVATION WATER, SENT FILE TO ACHD9/94
Date Preliminary Site Assessment Began	4/25/89
Date Leak was Discovered:	1/6/89
Reported Date:	1/6/89
Date Leak was Stopped:	1/6/89



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Fields Not Reported by the Source Agency for this Site:

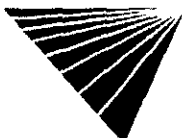
Cross Street(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Leak was Confirmed(1), Date Preliminary Site Assessment Workpla(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

VISTA Address*:	NATIONAL IMPORT 1148 18TH OAKLAND, CA 94607	VISTA ID#:	4222285
		Distance/Direction:	0.43 MI / NE
		Plotted as:	Point

Map ID
17

STATE LUST - State Leaking Underground Storage Tank / SRC# 164 EPA/Agency ID: N/A

Agency Address:	NATIONAL IMPORT 1148 18TH ST E OAKLAND, CA 94606
Site Name:	NATIONAL IMPORT
Site Location:	1148 18TH ST E
Site County:	OAKLAND CA 94606- ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-1780
Local Case ID #:	3659
Media Affected	UNDEFINED
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	CASE CLOSED
Substance Leaked:	DIESEL
Abatement Method	ED CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type	NONE TAKEN
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	CORROSION
Source of Leak	TANK
Longitude:	37.7936539
Latitude:	-122.2445489
Summary:	ARCHIVED 6/6/96 CONTROL NO 120-092 SRC 0904742
Date Preliminary Site Assessment Workpla	3/6/92
Date Case was Closed	3/2/94
Date Leak was Discovered:	10/2/91
Reported Date:	10/2/91
Date Leak was Stopped:	10/2/91



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Fields Not Reported by the Source Agency for this Site:	<i>Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Date Leak was Confirmed(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date of Enforcement Action(1), MTBE Date(1)</i>
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STATE LUST - State Leaking Underground Storage Tank / SRC# 853	Agency ID:	01-1780
Agency Address:	NATIONAL IMPORT 1148 18TH ST E OAKLAND, CA 0	
Case ID #:	01-1780	
Site Name:	NATIONAL IMPORT	
Site Address:	1148 18TH ST E	
Site County:	OAKLAND, CA ALAMEDA	
Date Entered:	6/15/93	
Substance Leaked:	NOT REPORTED	
Media Affected:	NOT REPORTED	
Discovery Date:	NOT REPORTED	
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.	
Fields Not Reported by the Source Agency for this Site:	<i>Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)</i>	

VISTA Address*:	WILLIAM WURZBACH COMPANY 1200 20TH AVE OAKLAND, CA 94606	VISTA ID#:	8568296
		Distance/Direction:	0.43 MI / E
		Plotted as:	Point

Map ID
18

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE	
Site Name:	WILLIAM WURZBACH COMPANY	
Site Location:	1200 20TH AVE OAKLAND CA 94606-	
Site County:	ALAMEDA	
Water Quality Control Board Region:	02	
Case ID #:	01-2066	
Local Case ID #:	4868	
Media Affected	OTHER GROUNDWATER	
Lead Agency:	LOCAL AGENCY LEAD	
Remediation Status	PRELIMINARY SITE ASSESSMENT UNDERWAY	
Substance Leaked:	GASOLINE	
Funding By:	FEDERAL FUNDS	
How was Leak Discovered	OTHER MEANS	
How was Leak Stopped	OTHER MEANS	
MTBE Tested	MTBE DETECTED	
Program Type	LOCAL OVERSIGHT PROGRAM UST	



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

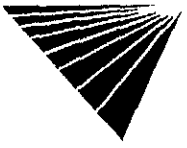
Responsible Party: BLANK RP
Cause of Leak: UNKNOWN
Source of Leak: UNKNOWN
Longitude: 37.7849742
Latitude: -122.2405248
Summary: FORMERLY LISTED AS SILVEIRAPROPERTY. ACHD REQ ADDITIONAL SITE CHARACTERIZATION BEFORE CLOSURE - 5/5/98.
Date Preliminary Site Assessment Workpla 3/31/95
Date Preliminary Site Assessment Began UNKNOWN
Date Leak was Discovered: 2/14/94
MTBE Date UNKNOWN
Reported Date: 1/19/94
Date Leak was Stopped: 2/14/94

Fields Not Reported by the Source *Cross Street(1), Media Affected(1), Abatement Method(1), Enforcement Type(1), How was Leak Discovered(1), How was Leak Stopped(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Leak was Confirmed(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1)*
Agency for this Site:

STATE LUST - State Leaking Underground Storage Tank / SRC# 853 Agency ID: 01-2066

Agency Address: WILLIAM WURZBACH COMPANY
 1200 20TH AVE
 OAKLAND, CA 0
 01-2066
Case ID #:
Site Name: WILLIAM WURZBACH COMPANY
Site Address: 1200 20TH AVE
 OAKLAND, CA
 ALAMEDA
Site County:
Date Entered: 5/16/95
Maximum Soil 5
Maximum Groundwater 1900
Current Benzene 92
Substance Leaked: NOT REPORTED
Media Affected: NOT REPORTED
Discovery Date: NOT REPORTED
Site Status: PRELIMINARY SITE ASSESSMENT UNDERWAY: IMPLEMENTATION OF WORKPLAN. THIS PHASE OF WORK INVOLVES DETERMINING IF GROUNDWATER HAS BEEN IMPACTED. WORK PERFORMED DURING THIS PHASE INCLUDES THE INSTALLATION OF UP TO THREE MONITORING WELLS IN ORDER TO DETERMINE THE SPECIFIC GRADIENT. AT LEAST ONE WELL SHOULD BE PLACED WITHIN 10' OF THE SUSPECTED POINT OF DISCHARGE IN A VERIFIED DOWNGRA DIENT LOCATION. OTHER WORK PERFORMED DURING THIS PHASE MAY INCLUDE SOIL BORINGS, SOIL GAS SURVEYS, ADDITIONAL EXCAVATION AND INTERIM REMEDIATION MEASURES. THE CASE WOULD MOVE TO STATUS 5 WHEN THE WORK EXCEEDS THAT WHICH WAS REQUIRED FOR GRADIENT DEFINITION AND INITIAL GROUNDWATER VERIFICATION (USUALLY THE INSTALLATION OF MORE THAN THREE WELLS).
Maximum MTBE 120
Current MTBE 120

Fields Not Reported by the Source MTBE Qualifier(1)
Agency for this Site:



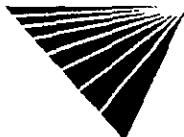
SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

VISTA Address*:	1X WONG'S ARCO STATION 2032 E. 12TH ST OAKLAND, CA 94606	VISTA ID#:	1247329
		Distance/Direction:	0.45 MI / E
		Plotted as:	Point

Map ID

18

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
Agency Address:	ARCO 2032 12TH ST E OAKLAND, CA 94606	
Site Name:	ARCO	
Site Location:	2032 12TH ST E	
Site County:	OAKLAND CA 94606- ALAMEDA	
Water Quality Control Board Region:	02	
Case ID #:	01-0093	
Local Case ID #:	198	
Media Affected	UNDEFINED	
Lead Agency:	LOCAL AGENCY LEAD	
Remediation Status	CASE CLOSED	
Substance Leaked:	GASOLINE	
Abatement Method	ED CODE LOOKUP. CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VIS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED	
Enforcement Type	NONE TAKEN	
Funding By:	FEDERAL FUNDS	
How was Leak Discovered	TANK CLOSURE	
How was Leak Stopped	CLOSE TANK	
MTBE Tested	SITE NOT TESTED FOR MTBE	
Program Type	LOCAL OVERSIGHT PROGRAM UST	
Responsible Party:	BLANK RP	
Cause of Leak	STRUCTRE FAILURE	
Source of Leak	TANK	
Longitude:	37.7849162	
Latitude:	-122.2402068	
Summary:	ARCHIVED 6/6/96 CONTROL NO 120-073 SRC 0904723	
Date Leak was Confirmed	6/16/93	
Date Case was Closed	12/22/95	
Date Leak was Discovered:	9/22/89	
Reported Date:	12/31/89	
Date Leak was Stopped:	9/22/89	
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date of Enforcement Action(1), MTBE Date(1)	



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-0093
Agency Address:	ARCO 2032 12TH ST E OAKLAND, CA 0		
Case ID #:	01-0093		
Site Name:	ARCO		
Site Address:	2032 12TH ST E OAKLAND, CA		
Site County:	ALAMEDA		
Date Entered:	12/20/89		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.		
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		

VISTA Address*:	HARLEY DAVIDSON MOTORCYCLE 744 12TH ST E OAKLAND, CA 94606	VISTA ID#:	11498342
		Distance/Direction:	0.43 MI / NW
		Plotted as:	Point

Map ID
19

STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE		
Site Name:	HARLEY DAVIDSON MOTORCYCLE		
Site Location:	744 12TH ST E OAKLAND CA 94606- ALAMEDA		
Site County:	ALAMEDA		
Water Quality Control Board Region:	02		
Case ID #:	01-2340		
Local Case ID #:	2957		
Media Affected:	UNDEFINED		
Lead Agency:	LOCAL AGENCY LEAD		
Remediation Status:	LEAK BEING CONFIRMED		
Substance Leaked:	GASOLINE CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VV-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED		
Funding By:	FEDERAL FUNDS		
How was Leak Discovered:	TANK CLOSURE		
How was Leak Stopped:	CLOSE TANK		
MTBE Tested:	MTBE DETECTED		
Program Type:	LOCAL OVERSIGHT PROGRAM UST		
Responsible Party:	BLANK RP		
Cause of Leak:	UNKNOWN		
Source of Leak:	UNKNOWN		
Longitude:	37.793433		



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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Latitude: -122.2526782
 Summary: NEW CASE PER ACHD QTR UPDATE- 8/98. ACHD REQ FUTHER SOIL GW CONTAMINATION ASSESSMENT BY 6/8/98.
 Date Leak was Confirmed: 8/10/98
 Date Leak was Discovered: 4/18/96
 MTBE Date: UNKNOWN
 Reported Date: 4/18/96
 Date Leak was Stopped: 4/18/96
 Fields Not Reported by the Source: Cross Street(1), Abatement Method(1), Enforcement Type(1), How was Leak Discovered(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1)
 Agency for this Site:

STATE LUST - State Leaking Underground Storage Tank / SRC# 853 Agency ID: 01-2340

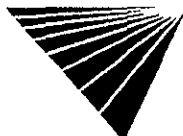
Agency Address: HARLEY DAVIDSON MOTORCYCLE
 744 12TH ST E
 OAKLAND, CA 0
 Case ID #: 01-2340
 Site Name: HARLEY DAVIDSON MOTORCYCLE
 Site Address: 744 12TH ST E
 OAKLAND, CA
 ALAMEDA
 Site County:
 Date Entered: 6/14/94
 Substance Leaked: NOT REPORTED
 Media Affected: NOT REPORTED
 Discovery Date: NOT REPORTED
 Site Status: LEAK CONFIRMED: A LAB REPORT RECEIVED CONFIRMING A LEAK/SPILL FROM A TANK.
 Maximum MTBE: 250
 Current MTBE: 250
 Fields Not Reported by the Source: Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1)
 Agency for this Site:

VISTA Address*:	MARINE TERMINALS CORP 101 10TH ST OAKLAND, CA 94606	VISTA ID#:	12639238
		Distance/Direction:	0.44 MI / W
		Plotted as:	Point

Map ID
20

STATE LUST - State Leaking Underground Storage Tank / SRC# 164 EPA/Agency ID: N/A

Agency Address: SAME AS ABOVE
 Site Name: MARINE TERMINALS CORP
 Site Location: 101 10TH ST
 OAKLAND CA 94606-
 ALAMEDA
 Site County:
 Water Quality Control Board Region: 02
 Case ID #: 01-2403
 Local Case ID #: 5067
 Media Affected: UNDEFINED
 Lead Agency: LOCAL AGENCY LEAD
 Remediation Status: PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED
 Substance Leaked: GASOLINE



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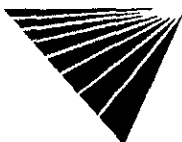
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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Funding By:	CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	SITE NOT TESTED FOR MTBE
Program Type	LOCAL OVERSIGHT PROGRAM LUST
Responsible Party:	BLANK RP
Cause of Leak	UNKNOWN
Source of Leak	UNKNOWN
Longitude:	37.796295
Latitude:	-122.2597503
Summary:	NEW CASE PER ACHD UPDATE - 9/98.
Date Leak was Confirmed	10/30/97
Date Preliminary Site Assessment Workpla	UNKNOWN
Date Leak was Discovered:	5/2/97
Reported Date:	5/2/97
Date Leak was Stopped:	5/2/97
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), Abatement Method(1), Enforcement Type(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-2403
Agency Address:	MARINE TERMINALS CORP 101 10TH ST OAKLAND, CA 0		
Case ID #:	01-2403		
Site Name:	MARINE TERMINALS CORP		
Site Address:	101 10TH ST		
Site County:	OAKLAND, CA ALAMEDA		
Date Entered:	9/28/98		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED: A WORKPLAN AND IMPLEMENTATION SCHEDULE HAS BEEN SUBMITTED TO DETERMINE IF THE GROUNDWATER HAS BEEN OR WILL BE IMPACTED. THIS PLAN INCLUDES THE INSTALLATION OF MONITORING WELLS.		
Fields Not Reported by the Source Agency for this Site:	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		



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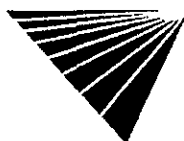
SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

VISTA Address*:	KEEP ON TRUCKING CO INC 370 8TH AVE OAKLAND, CA 94606	VISTA ID#:	1252818
		Distance/Direction:	0.46 MI / W
		Plotted as:	Point

Map ID
21

STATE LUST - State Leaking Underground Storage Tank / SRC# 164	EPA/Agency ID:	N/A
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Agency Address:	KEEP ON TRUCKING 370 8TH AVE OAKLAND, CA 94606
Site Name:	KEEP ON TRUCKING
Site Location:	370 8TH AVE OAKLAND CA 94606-
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-1965
Local Case ID #:	3335
Media Affected	OTHER GROUNDWATER
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	PRELIMINARY SITE ASSESSMENTWORKPLAN SUBMITTED
Substance Leaked:	DIESEL
Abatement Method	NT
Enforcement Type	CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATEAND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENTAT HOOKUP/VIS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED NONE TAKEN
Funding By:	FEDERAL FUNDS
How was Leak Discovered	OTHER MEANS
How was Leak Stopped	REMOVE CONTENTS
MTBE Tested	NOT REQUIRED TO BE TESTED
Program Type	LOCAL OVERSIGHT PROGRAM UST
Repsonsible Party:	BLANK RP
Cause of Leak	OVERFILL
Source of Leak	UNKNOWN
Longitude:	37.7890191
Latitude:	-122.2579273
Summary:	URF,SOURCE MAYBE COMMING FR9TH DIESEL SPILL ABOVE GROUND PIPING TK
Date Preliminary Site Assessment Workpla	UNKNOWN
Date Leak was Discovered:	2/12/93
Reported Date:	12/29/94
Date Leak was Stopped:	2/12/93
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Media Affected(1), Remediation Status(1), How was Leak Discovered(1), How was Leak Stopped(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Leak was Confirmed(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)



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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-1965
Agency Address:	KEEP ON TRUCKING 370 8TH AVE OAKLAND, CA 0		
Case ID #:	01-1965		
Site Name:	KEEP ON TRUCKING		
Site Address:	370 8TH AVE OAKLAND, CA ALAMEDA		
Site County:	ALAMEDA		
Date Entered:	4/29/93		
Maximum Groundwater	410000		
Current Benzene	140		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED. A WORKPLAN AND IMPLEMENTATION SCHEDULE HAS BEEN SUBMITTED TO DETERMINE IF THE GROUNDWATER HAS BEEN OR WILL BE IMPACTED. THIS PLAN INCLUDES THE INSTALLATION OF MONITORING WELLS.		
Fields Not Reported by the Source	Maximum Soil(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		
Agency for this Site:			

VISTA Address*:	CARD LOCK FORMER BUILDING H 204 79 8TH AVE OAKLAND, CA 94606	VISTA ID#:	12639377
		Distance/Direction:	0.50 MI / W
		Plotted as:	Point

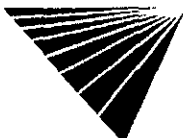
Map ID
21

STATE LUST - State Leaking Underground Storage Tank / SRC# 853		Agency ID:	01-2400
Agency Address:	CARD LOCK FORMER BUILDING H 204 79 8TH AVE OAKLAND, CA 0		
Case ID #:	01-2400		
Site Name:	CARD LOCK FORMER BUILDING H204		
Site Address:	79 8TH AVE OAKLAND, CA ALAMEDA		
Site County:	ALAMEDA		
Date Entered:	9/28/98		
Substance Leaked:	NOT REPORTED		
Media Affected:	NOT REPORTED		
Discovery Date:	NOT REPORTED		
Site Status:	PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED. A WORKPLAN AND IMPLEMENTATION SCHEDULE HAS BEEN SUBMITTED TO DETERMINE IF THE GROUNDWATER HAS BEEN OR WILL BE IMPACTED. THIS PLAN INCLUDES THE INSTALLATION OF MONITORING WELLS.		
Fields Not Reported by the Source	Maximum Soil(1), Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)		
Agency for this Site:			

VISTA Address*:	CARD LOCK FORMER BUILDING H 204 79 8TH AVE OAKLAND, CA 94606	VISTA ID#:	67010372
		Distance/Direction:	0.50 MI / W
		Plotted as:	Point

Map ID
21

STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	SAME AS ABOVE		
Site Name:	CARD LOCK FORMER BUILDING H204		



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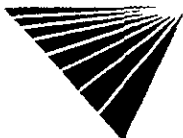
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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Site Location:	79 8TH AVE OAKLAND CA 94606- ALAMEDA
Site County:	ALAMEDA
Water Quality Control Board Region:	02
Case ID #:	01-2400
Local Case ID #:	6894
Media Affected	UNDEFINED
Lead Agency:	LOCAL AGENCY LEAD
Remediation Status	PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED
Substance Leaked:	GASOLINE CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Funding By:	FEDERAL FUNDS
How was Leak Discovered	TANK CLOSURE
How was Leak Stopped	CLOSE TANK
MTBE Tested	SITE NOT TESTED FOR MTBE
Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	UNKNOWN
Source of Leak	UNKNOWN
Longitude:	37.7879672
Latitude:	-122.2593873
Summary:	NEW CASE PER ACHD UPDATE - 9/98.
Date Leak was Confirmed	10/30/97
Date Preliminary Site Assessment Workpla	UNKNOWN
Date Leak was Discovered:	2/5/97
Reported Date:	2/5/97
Date Leak was Stopped:	2/5/97
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), Abatement Method(1), Enforcement Type(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Source of Leak(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), Date Case was Closed(1), Date of Enforcement Action(1), MTBE Date(1)

VISTA Address*:	VUKASIM PROPERTY 54 EMBARCADERO OAKLAND, CA 94606	VISTA ID#:	5354419
		Distance/Direction:	0.49 MI / SE
		Plotted as:	Point
STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	VUKASIM PROPERTY 54 EMBARCADERO ST OAKLAND, CA 94606		
Site Name:	VUKASIM PROPERTY		
Site Location:	54 EMBARCADERO ST OAKLAND CA 94606- ALAMEDA		
Site County:	ALAMEDA		

Map ID
22



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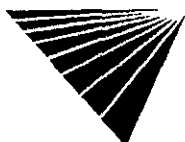
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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Water Quality Control Board Region: 02
Case ID #: 01-1564
Local Case ID #: 01-1564
Media Affected: OTHER GROUNDWATER
Lead Agency: LOCAL AGENCY LEAD
Remediation Status: LEAK BEING CONFIRMED
Substance Leaked: GASOLINE
Abatement Method: NT
 CODE LOOKUP: CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATE AND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREAT/GW/RS-REPLACE SUPPLY/HU-TREATMENT AT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED
Enforcement Type: NONE TAKEN
Funding By: FEDERAL FUNDS
How was Leak Discovered: TANK CLOSURE
How was Leak Stopped: CLOSE TANK
MTBE Tested: SITE NOT TESTED FOR MTBE
Program Type: LOCAL OVERSIGHT PROGRAM UST
Responsible Party: BLANK RP
Cause of Leak: STRUCTRE FAILURE
Source of Leak: TANK
Longitude: 37.7939281
Latitude: -122.2724804
Summary: CURRENT MTBE DATE: 12/16/97
Date Leak was Confirmed: 12/30/88
Date Leak was Discovered: 12/30/88
Reported Date: 12/30/88
Date Leak was Stopped: 12/30/88

Fields Not Reported by the Source Agency for this Site: Cross Street(1), Media Affected(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1)

STATE LUST - State Leaking Underground Storage Tank / SRC# 853	Agency ID:	01-1564
Agency Address:	VUKASIM PROPERTY 54 EMBARCADERO ST OAKLAND, CA 0	
Case ID #:	01-1564	
Site Name:	VUKASIM PROPERTY	
Site Address:	54 EMBARCADERO ST OAKLAND, CA	
Site County:	ALAMEDA	
Date Entered:	12/30/88	
Maximum Groundwater	9999999	
Substance Leaked:	NOT REPORTED	
Media Affected:	NOT REPORTED	
Discovery Date:	NOT REPORTED	
Site Status:	LEAK CONFIRMED: A LAB REPORT RECEIVED CONFIRMING A LEAK/SPILL FROM A TANK.	



SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

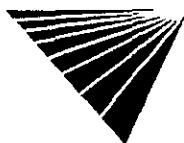
Fields Not Reported by the Source *Maximum Soil(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)*
 Agency for this Site:

VISTA Address*:	RYAN PAINTS 630 E 10TH ST OAKLAND, CA 94606	VISTA ID#:	363990
		Distance/Direction:	0.50 MI / NW
		Plotted as:	Point
NFRAP / SRC# 18		Agency ID:	0900297

Map ID

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Agency Address:	<i>SAME AS ABOVE</i>
EPA ID:	<i>CAD981165582</i>
Site ID:	<i>0900297</i>
Financial Management System ID	<i>09F7</i>
EPA Region:	<i>09</i>
USGS Hydrologic Unit Code:	<i>18050004</i>
Ownership Type:	<i>PRIVATE</i>
Federal Facility Indicator:	<i>NOT A FEDERAL FACILITY</i>
NPL Status:	<i>NOT ON THE NPL</i>
Hazardous Waste Docket Flag:	<i>NOT ON THE HAZARDOUS WASTEDOCKET</i>
Site Incident Category Description	<i>ABANDONED</i>
Action:	<i>ADMINISTRATIVE RECORD</i>
Action Qualifier	<i>ADMIN RECORD COMPILED FOR AREMOVAL EVENT</i>
Action Lead:	<i>EPA FUND-FINANCED</i>
Scheduled Start Date	<i>FEBRUARY 15, 1991</i>
Scheduled Completion Date	<i>MARCH 31, 1991</i>
Actual Start Date	<i>FEBRUARY 15, 1991</i>
Actual Completion Date:	<i>FEBRUARY 15, 1991</i>
Action:	<i>COST RECOVERY NEGOTIATIONS</i>
Action Lead:	<i>FEDERAL ENFORCEMENT</i>
Actual Start Date	<i>APRIL 11, 1991</i>
Actual Completion Date:	<i>JANUARY 13, 1992</i>
Action Qualifier	<i>SEARCH COMPLETE, NO VIABLE PRPS</i>
Action Lead:	<i>FEDERAL ENFORCEMENT</i>
Actual Start Date	<i>JANUARY 25, 1988</i>
Actual Completion Date:	<i>JUNE 25, 1991</i>
Action:	<i>REMOVAL ACTION</i>
Action Qualifier	<i>CLEANED UP</i>
Action Lead:	<i>EPA FUND-FINANCED</i>
Scheduled Start Date	<i>FEBRUARY 4, 1988</i>
Scheduled Completion Date	<i>FEBRUARY 29, 1988</i>
Actual Start Date	<i>FEBRUARY 5, 1988</i>
Actual Completion Date:	<i>MARCH 14, 1988</i>
Action:	<i>UNILATERAL ADMINISTRATIVE ORDER</i>
Action Lead:	<i>FEDERAL ENFORCEMENT</i>
Actual Completion Date:	<i>JANUARY 28, 1988</i>
Financial Transaction ID:	<i>0002</i>
Transaction Type:	<i>ACTUAL OBLIGATION</i>



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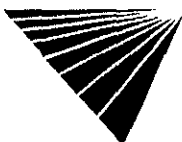
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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Transaction Date:	MARCH 15, 1991
Amount:	\$ 341.00
Financial Transaction ID:	0001
Transaction Type:	COMMITMENT
Transaction Date:	FEBRUARY 11, 1991
Amount:	\$ 341.00
Financial Transaction ID:	0001
Transaction Type:	DECOMMITMENT
Transaction Date:	FEBRUARY 11, 1991
Amount:	\$ 341.00
Financial Transaction ID:	0001
Transaction Type:	ACTUAL OBLIGATION
Transaction Date:	FEBRUARY 3, 1988
Amount:	\$ 85,000.00
Financial Transaction ID:	0005
Transaction Type:	ACTUAL OBLIGATION
Transaction Date:	APRIL 21, 1988
Amount:	\$ 5,000.00
Financial Transaction ID:	0008
Transaction Type:	ACTUAL OBLIGATION
Transaction Date:	SEPTEMBER 16, 1988
Amount:	\$ 6,124.00
Financial Transaction ID:	0001
Transaction Type:	OPEN COMMITMENT
Transaction Date:	AUGUST 10, 1988
Amount:	\$ 876.00
Financial Transaction ID:	0007
Transaction Type:	COMMITMENT
Transaction Date:	AUGUST 10, 1988
Amount:	\$ 7,000.00
Financial Transaction ID:	0002
Transaction Type:	COMMITMENT
Transaction Date:	FEBRUARY 5, 1988
Amount:	\$ 85,000.00
Financial Transaction ID:	0003
Transaction Type:	COMMITMENT
Transaction Date:	MARCH 9, 1988
Amount:	\$ 12,000.00
Financial Transaction ID:	0004
Transaction Type:	COMMITMENT
Transaction Date:	MARCH 23, 1988
Amount:	\$ 5,000.00
Financial Transaction ID:	0009
Transaction Type:	DECOMMITMENT
Transaction Date:	AUGUST 10, 1988



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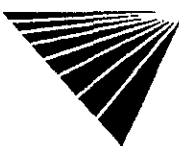
SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Amount:	\$ 6,124.00
Financial Transaction ID:	0008
Transaction Type:	DECOMMITMENT
Transaction Date:	MARCH 23, 1988
Amount:	\$ 5,000.00
Financial Transaction ID:	0006
Transaction Type:	DECOMMITMENT
Transaction Date:	AUGUST 4, 1988
Amount:	\$ 12,000.00
Financial Transaction ID:	0007
Transaction Type:	DECOMMITMENT
Transaction Date:	FEBRUARY 3, 1988
Amount:	\$ 85,000.00
Operable Unit ID:	00
Operable Unit Name:	SITEWIDE
Fields Not Reported by the Source	Action Qualifier(2), Scheduled Start Date(3), Scheduled Completion Date(3), Action(1), Actual Start Date(1), Description(1), (1), (1), (1)
Agency for this Site:	

VISTA Address*:	1X AMERICAN INK PRODUCTS INC 630 E. 10TH ST OAKLAND, CA 94606	VISTA ID#:	930163
		Distance/Direction:	0.50 Mi / NW
		Plotted as:	Point

Map ID
23

STATE LUST - State Leaking Underground Storage Tank / SRC# 164		EPA/Agency ID:	N/A
Agency Address:	AMERICAN INK PRODUCTS 630 10TH ST E OAKLAND, CA 94606		
Site Name:	AMERICAN INK PRODUCTS		
Site Location:	630 10TH ST E OAKLAND CA 94606-		
Site County:	ALAMEDA		
Water Quality Control Board Region:	02		
Case ID #:	01-0076		
Local Case ID #:	01-1223		
Media Affected	SOIL ONLY		
Lead Agency:	LOCAL AGENCY LEAD		
Remediation Status	CASE CLOSED		
Substance Leaked:	GASOLINE		
Abatement Method	ED CODE LOOKUP, CD-CAP SITE/CB-CONTAINMENT BARRIER/ED-EXCAVATE AND DISPOSE/ET-EXCAVATEAND TREAT/FP-REMOVE FREE PRODUCT/GT-PUMP AND TREATGW/RS-REPLACE SUPPLY/HU-TREATMENTAT HOOKUP/VS-VENT SOIL/VE-VACUUM EXTRACT/AS-AIR SPARGING/IT-ENHANCED BIODEGRADATION/OT-OTHER/NT-NO ACTION TAKEN/UK-UNKNOWN/NA-NO ACTION REQUIRED		
Enforcement Type	13267 LETTERS FOR ENFORCEMENT		
Funding By:	FEDERAL FUNDS		
How was Leak Discovered	TANK CLOSURE		
How was Leak Stopped	CLOSE TANK		
MTBE Tested	SITE NOT TESTED FOR MTBE		



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SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Program Type	LOCAL OVERSIGHT PROGRAM UST
Responsible Party:	BLANK RP
Cause of Leak	STRUCTRE FAILURE
Source of Leak	TANK
Longitude:	37.792815
Latitude:	-122.2553252
Summary:	ARCHIVED 6/6/96 CONTROL NO 120-073 SRC 0904723
Date Leak was Confirmed	7/13/92
Date Case was Closed	2/15/95
Date Leak was Discovered:	11/7/88
Date of Enforcement Action	8/6/93
Reported Date:	11/7/88
Date Leak was Stopped:	11/7/88

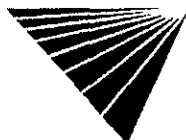
Fields Not Reported by the Source Agency for this Site:	Cross Street(1), Remediation Status(1), How was Leak Discovered(1), MTBE Tested(1), Program Type(1), Substance Quantity Leaked (G)(1), Cause of Leak(1), Date Preliminary Site Assessment Workpla(1), Date Preliminary Site Assessment Began(1), Date Pollution Characterization Began(1), Date Remediation Plan Submitted(1), Date Remedial Action Underway(1), Date Post Remedial Action Monitoring Beg(1), MTBE Date(1)
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STATE LUST - State Leaking Underground Storage Tank / SRC# 853	Agency ID:	01-0076
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Agency Address:	AMERICAN INK PRODUCTS 630 10TH ST E OAKLAND, CA 0
Case ID #:	01-0076
Site Name:	AMERICAN INK PRODUCTS
Site Address:	630 10TH ST E
Site County:	OAKLAND, CA ALAMEDA
Date Entered:	5/9/91
Maximum Soil	3000
Substance Leaked:	NOT REPORTED
Media Affected:	NOT REPORTED
Discovery Date:	NOT REPORTED
Site Status:	CASE CLOSED: REGIONAL BOARD(AND LOCAL AGENCY WHERE APPROPRIATE) ARE IN CONCURRENCE THAT NO FURTHER ACTION IS NECESSARY AT THE SITE.
Fields Not Reported by the Source Agency for this Site:	Maximum Groundwater(1), Current Benzene(1), MTBE Qualifier(1), Maximum MTBE(1), Current MTBE(1)

SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)

No Records Found



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UNMAPPED SITES

No Records Found



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SITE ASSESSMENT REPORT

DESCRIPTION OF DATABASES SEARCHED

A) DATABASES SEARCHED TO 1 MILE

NPL
SRC#: 19 VISTA conducts a database search to identify all sites within 1 mile of your property
The agency release date for National Priorities List was July, 2001.

The NPL Report is the US EPA's registry of the nation's worst uncontrolled or abandoned hazardous waste sites. NPL sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.

SPL
SRC#: 113 VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for CalSites Database was October, 2000.

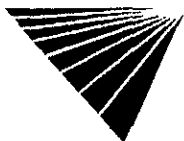
This database is provided by the Cal. Environmental Protection Agency, Dept. of Toxic Substances Control. The agency may be contacted at: 916-323-3400.

CORRACTS
SRC#: 14 VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for RCRIS Corrective Action Sites was June, 2000.

The CORRACTS database contains information concerning RCRA facilities that have conducted, or are currently conducting a corrective action. A Corrective Action Order is issued pursuant to RCRA Section 3008 (h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may also be imposed as a requirement of receiving and maintaining a TSDF permit.

RCRIS-TSDC
SRC#: 556 VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for RCRIS TSDs Subject to Corrective Action was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDCs are treatment, storage and/or disposal facilities that are subject to corrective action under RCRA.



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B) DATABASES SEARCHED TO 1/2 MILE

CERCLIS
SRC#: 17 VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Comprehensive Environmental Response, Compensation and Liability Information Sys was July, 2001.

The CERCLIS database is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated, or are currently under investigation by the U.S. EPA for the release, or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation, and ultimately placed on the National Priorities List (NPL).

NFRAP
SRC#: 18 VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for No Further Remedial Action Planned was July, 2001.

The No Further Remedial Action Planned Report (NFRAP), also known as the CERCLIS Archive, contains information pertaining to sites which have been removed from the U.S. EPA's CERCLIS database. NFRAP sites may be sites where, following an initial investigation, either no contamination was found, contamination was removed quickly without need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration.

SCL
SRC#: 112 VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for CalSites Database was October, 2000.

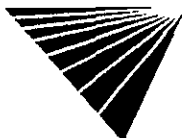
This database is provided by the Department of Toxic Substances Control. Two-thirds of these sites have been classified, based on available information, as needing "No Further Action" (NFA) by the Department of Toxic Substances Control. The remaining sites are in various stages of review and remediation to determine if a problem exists at the site. Several hundred sites have been remediated and are considered certified. Some of these sites may be in long term operation and maintenance.

RCRIS-TSD
SRC#: 12 VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for RCRIS Treatment, Storage and Disposal Facilities was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDs are facilities which treat, store and/or dispose of hazardous waste.

SWLF
SRC#: 23 VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for USGS Solid Waste Landfills was December, 1991.

This database is provided by the United States Geological Survey. The agency may be contacted at: 703-648-5613.



SWLF
SRC#: 163

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Solid Waste Inventory System was June, 2001.

This database is provided by the Integrated Waste Management Board. The agency may be contacted at: 916-255-4021.

LUST-REG
SRC#: 108

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Region 6 Leaking Underground Storage Tanks was July, 2001.

This database is provided by the Lahontan Region Six South Lake Tahoe. The agency may be contacted at: 530-542-5400.

LUST-REG
SRC#: 145

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Region 5 Leaking Underground Storage Tanks was July, 2001.

This database is provided by the Regional Water Quality Control Board, Region #5. The agency may be contacted at: 916-255-3125.

LUST
SRC#: 164

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Leaking Underground Storage Tank Information System was August, 2001.

This database is provided by the California Environmental Protection Agency. The agency may be contacted at: 916-341-5740.

LUST-REG
SRC#: 853

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Region 2 Fuel Leak List was July, 2001.

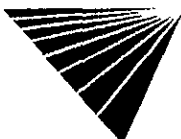
This database is provided by the Regional Water Quality Control Board, Region #2. The agency may be contacted at: 510-286-1269.

C) DATABASES SEARCHED TO 1/4 MILE

UST
SRC#: 45

VISTA conducts a database search to identify all sites within 1/4 mile of your property.
The agency release date for Underground Storage Tanks was January, 1994.

This historical database is provided by the State Water Resources Control Board, Office of Underground Storage Tanks. Please refer to the local level UST list for more current information. Be advised that some states do not require registration of heating oil tanks, especially those used for residential purposes.



AST VISTA conducts a database search to identify all sites within 1/4 mile of your property.
SRC#: 60 The agency release date for Aboveground Storage Tanks was January, 2001.

This database is provided by the State Water Resources Control Board. The agency may be contacted at: 916-227-4364.

D) DATABASES SEARCHED TO 1/8 MILE

ERNS VISTA conducts a database search to identify all sites within 1/8 mile of your property.
SRC#: 8 The agency release date for Emergency Response Notification System was December, 2000.

ERNS is a national computer database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party.

RCRA-LQG VISTA conducts a database search to identify all sites within 1/8 mile of your property.
SRC#: 16 The agency release date for RCRIS Large Quantity Generators was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Large Generators are facilities which generate at least 1000 kg./month of non-acutely hazardous waste (or 1 kg./month of acutely hazardous waste).

RCRIS-SQG VISTA conducts a database search to identify all sites within 1/8 mile of your property.
SRC#: 15 The agency release date for RCRIS Small Quantity Generators was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Small Quantity Generators are facilities which generate less than 1000 kg./month of non-acutely hazardous waste.

RCRIS-NOTI VISTA conducts a database search to identify all sites within 1/8 mile of your property.
SRC#: 1298 The agency release date for RCRIS Notifiers was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRIS Notifiers contains information on formerly regulated RCRA sites with more complete historical information.



SPILLS
SRC#: 106

VISTA conducts a database search to identify all sites within 1/8 mile of your property.
The agency release date for Region 2 SLIC Site List was July, 2001.

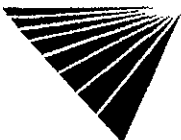
This database is provided by the Regional Water Quality Control Board, Region #2. The agency may be contacted at: 510-286-1269.

SPILLS
SRC#: 147

VISTA conducts a database search to identify all sites within 1/8 mile of your property.
The agency release date for Region 5 SLIC/DOD/DOE Site List was July, 2001.

This database is provided by the Regional Water Quality Control Board, Region #5. The agency may be contacted at: 916-255-3000.

End of Report

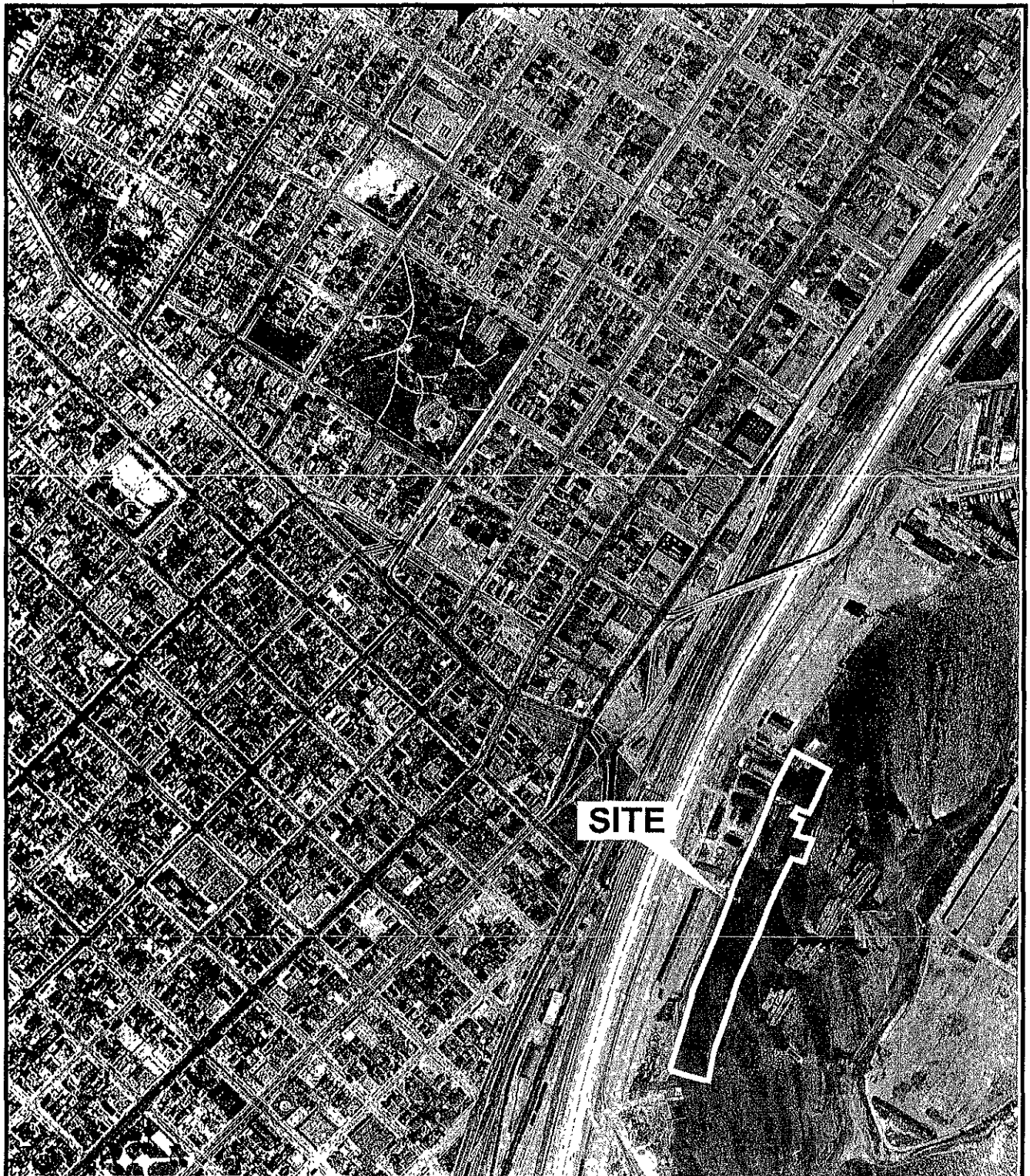


Historical Research Documentation

The following documents were requested and/or reviewed during the historical research conducted as part of this assessment:

- Historical aerial photographs dated 1930, 1950, 1959, 1969, 1979, 1989, and 1998 were reviewed at Pacific Aerial Surveys in Oakland, California. Copies of the 1950 and newer historical aerial photographs are included in this appendix.
- United States Geological Survey (USGS) 7.5-minute topographical maps for the Oakland East and Oakland West, California dated 1993 and historical topographic maps of the same two quadrangles dated 1949, 1959, 1968, 1973, and 1980 provided by Environmental Data Resources, Inc. (EDR) were reviewed. Copies of the topographical maps are included in this appendix.
- Historical fire insurance maps dated 1903, 1911, 1950, 1952, 1953, 1957, 1959, 1960, 1964, 1965, 1967, and 1969 provided by EDR were reviewed. Copies of the historical fire insurance maps are included in this appendix.
- City directories dated 1972, 1976, 1979, 1985, 1990, and 1997 provided by Fidelity National Information Solutions (FNIS) were reviewed. Copies of pages from the historical city directories are included in this appendix.
- Permit information on file at the City of Oakland Building Department was reviewed. A copy of drawing BB-3132, which was on file at the OBD and shows the former layout of the 1275 Embarcadero property, is included in this appendix.

Historical Aerial Photos of the Site



01196A-1950.dwg

Source: Pacific Aerial Surveys

IRIS ENVIRONMENTAL
1615 Broadway, Suite 1003, Oakland, California 94612

1275-1441 Embarcadero, Port of Oakland
Historical Aerial Photo, 1950
Oakland, California

Figure

Dialler: MS

Date: 3/11/02

Contract Number: 01-196A

Approved:

Revised:



01196A-1959.dcf

Source: Pacific Aerial Surveys

IRIS ENVIRONMENTAL
1615 Broadway, Suite 1003, Oakland, California 94612

1275-1441 Embarcadero, Port of Oakland
Historical Aerial Photo, 1959
Oakland, California

Figure

Drafter: MS

Date: 3/11/02

Contract Number: 01-196A

Approved:

Revised:



01196A-1995.dwt

Source: Pacific Aerial Surveys

IRIS ENVIRONMENTAL
1615 Broadway, Suite 1003, Oakland, California 94612

**1275-1441 Embarcadero, Port of Oakland
Historical Aerial Photo, 1969
Oakland, California**

Figure

Drafter: MS

Date: 3/11/02

Contract Number: 01-196A

Approved:

Revised:



01196A-1979.aif

Source: Pacific Aerial Surveys.

IRIS ENVIRONMENTAL
1615 Broadway, Suite 1003, Oakland, California 94612

**1275-1441 Embarcadero, Port of Oakland
Historical Aerial Photo, 1979
Oakland, California**

Figure

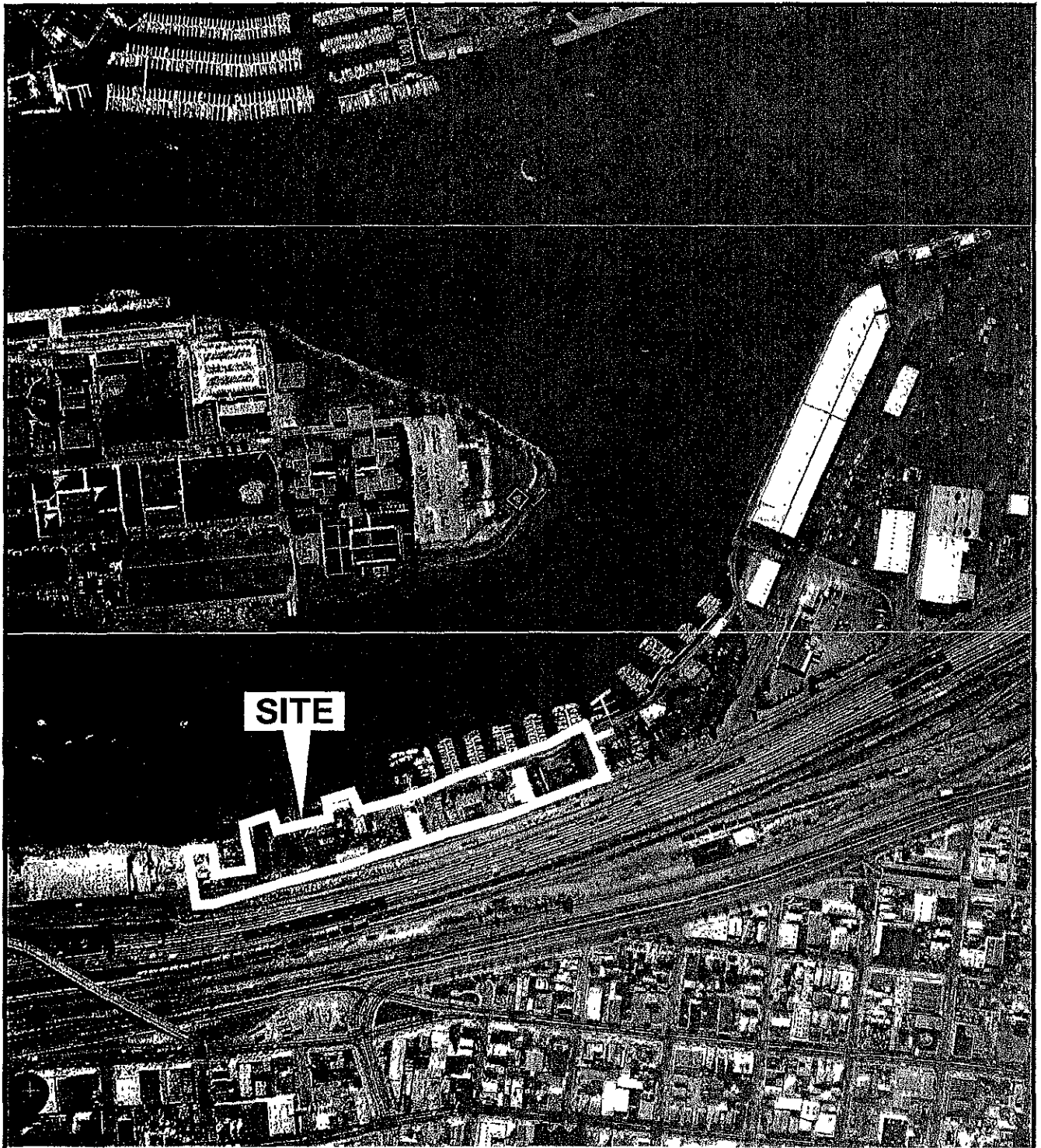
Dialler: MS

Date: 3/11/02

Contract Number: 01-196A

Approved:

Revised:



01196A-1989.cdr

Source: Pacific Aerial Surveys

IRIS ENVIRONMENTAL
1615 Broadway, Suite 1003, Oakland, California 94612

1275-1441 Embarcadero, Port of Oakland
Historical Aerial Photo, 1989
Oakland, California

Figure

Drafter: MS

Date: 3/11/02

Contract Number: 01-196A

Approved:

Revised:



01196A-1998.czi

Source: Pacific Aerial Surveys.

IRIS ENVIRONMENTAL
1615 Broadway, Suite 1003, Oakland, California 94612

**1275-1441 Embarcadero, Port of Oakland
Historical Aerial Photo, 1998
Oakland, California**

Figure

Drafter: MS

Date: 3/11/02

Contract Number: 01-196A

Approved:

Revised:

Historical Topographical Maps of the Site



**The EDR-Historical
Topographic Map
Report**

**Port of Oakland - Embarcadero
1275-1441 Embarcadero
Oakland, CA 94606**

November 1, 2001

Inquiry Number: 697904-2

***The Source
For Environmental
Risk Management
Data***

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

Environmental Data Resources, Inc. Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources*. *Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.2, the following *standard historical sources* may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires "*All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.*" ASTM E 1527-00, Section 7.3.2 page 11.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

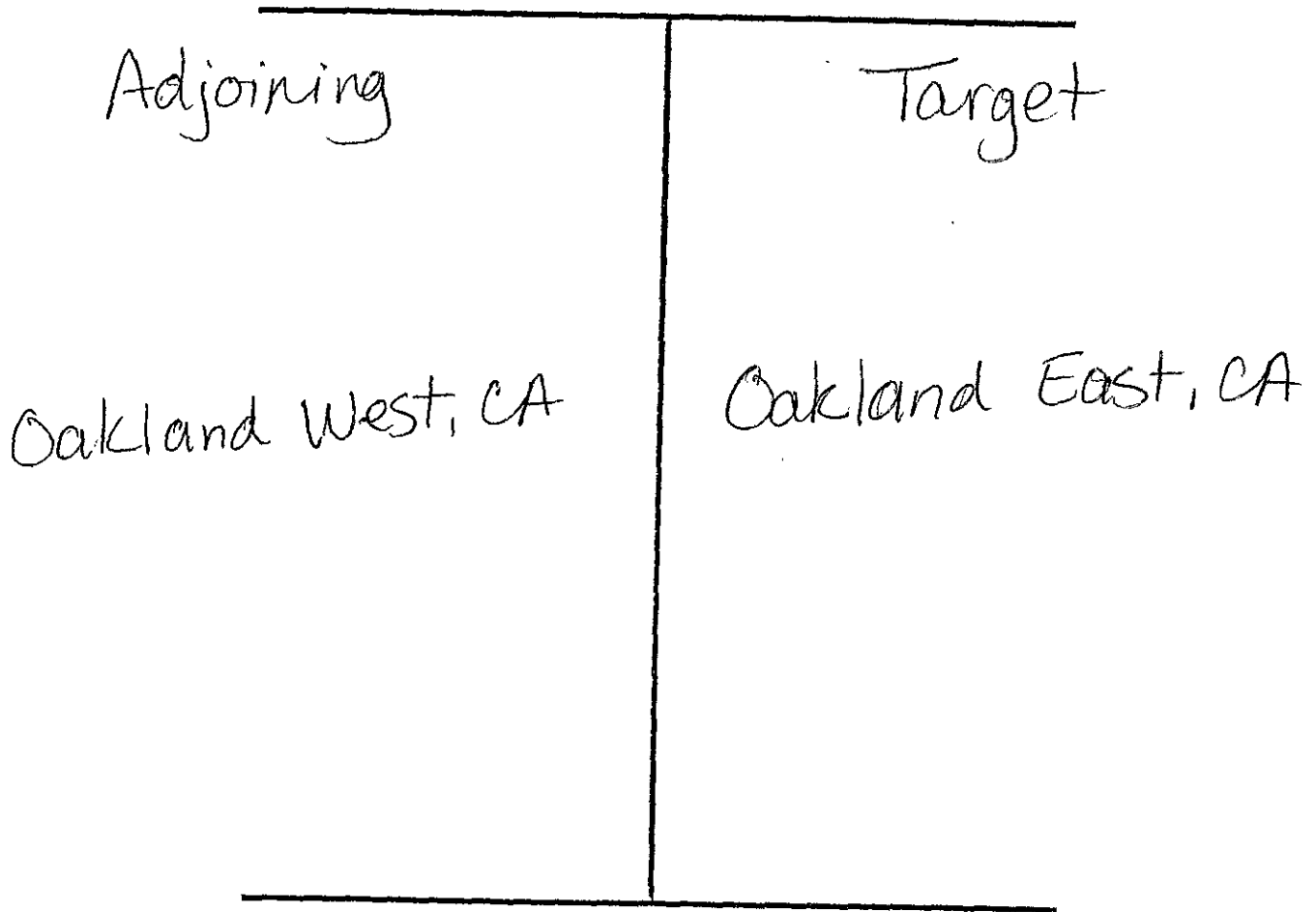
Topographic Maps

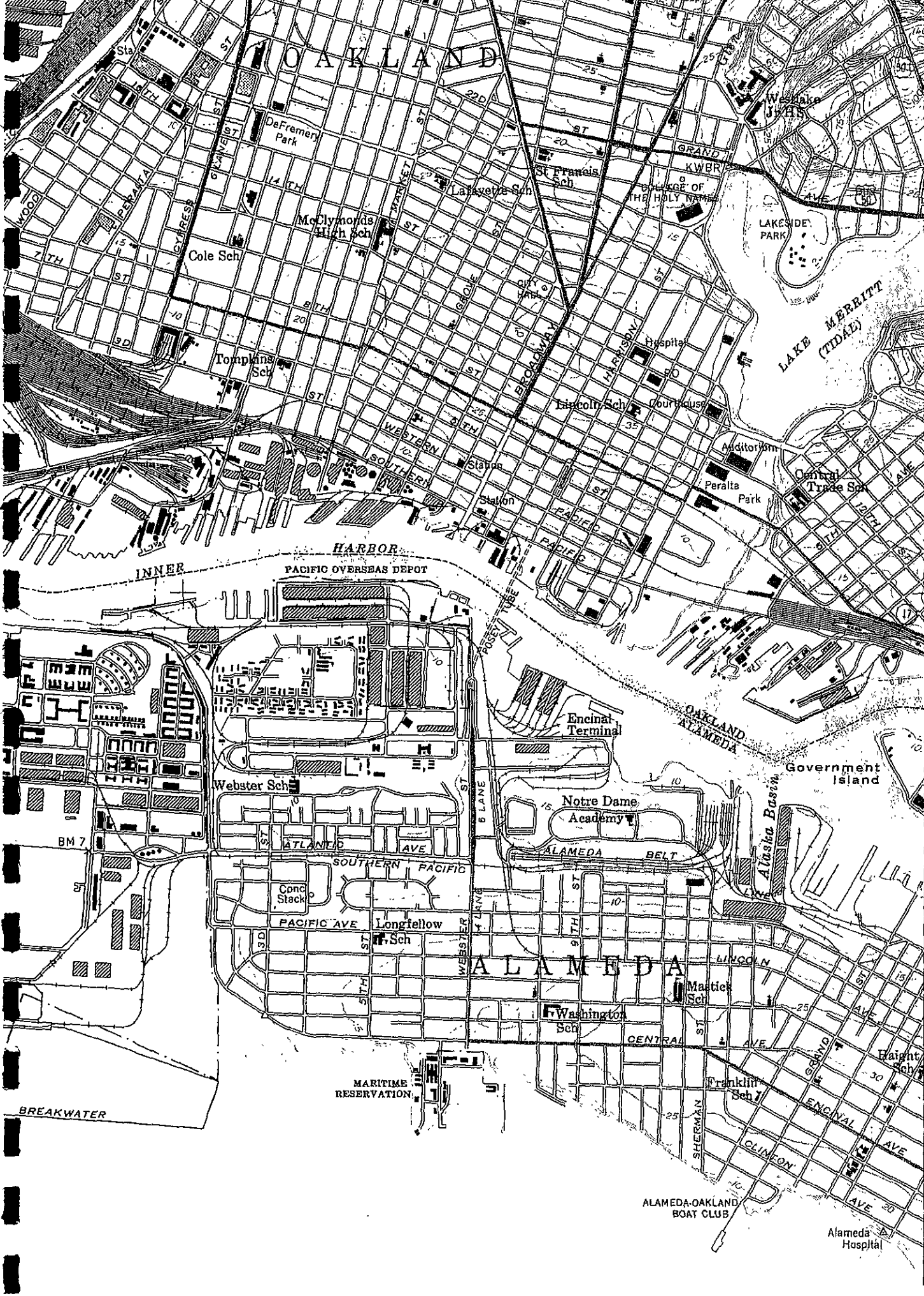
A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

Quadrangle Relation Chart

Inquiry # 697904-2





1949
 Oakland West, CA 7.5 min, 1:24, 600

0.4 MI. TO U.S. 50
 SAN LEANDRO 6.8 MI
 HAYWARD 12 MI

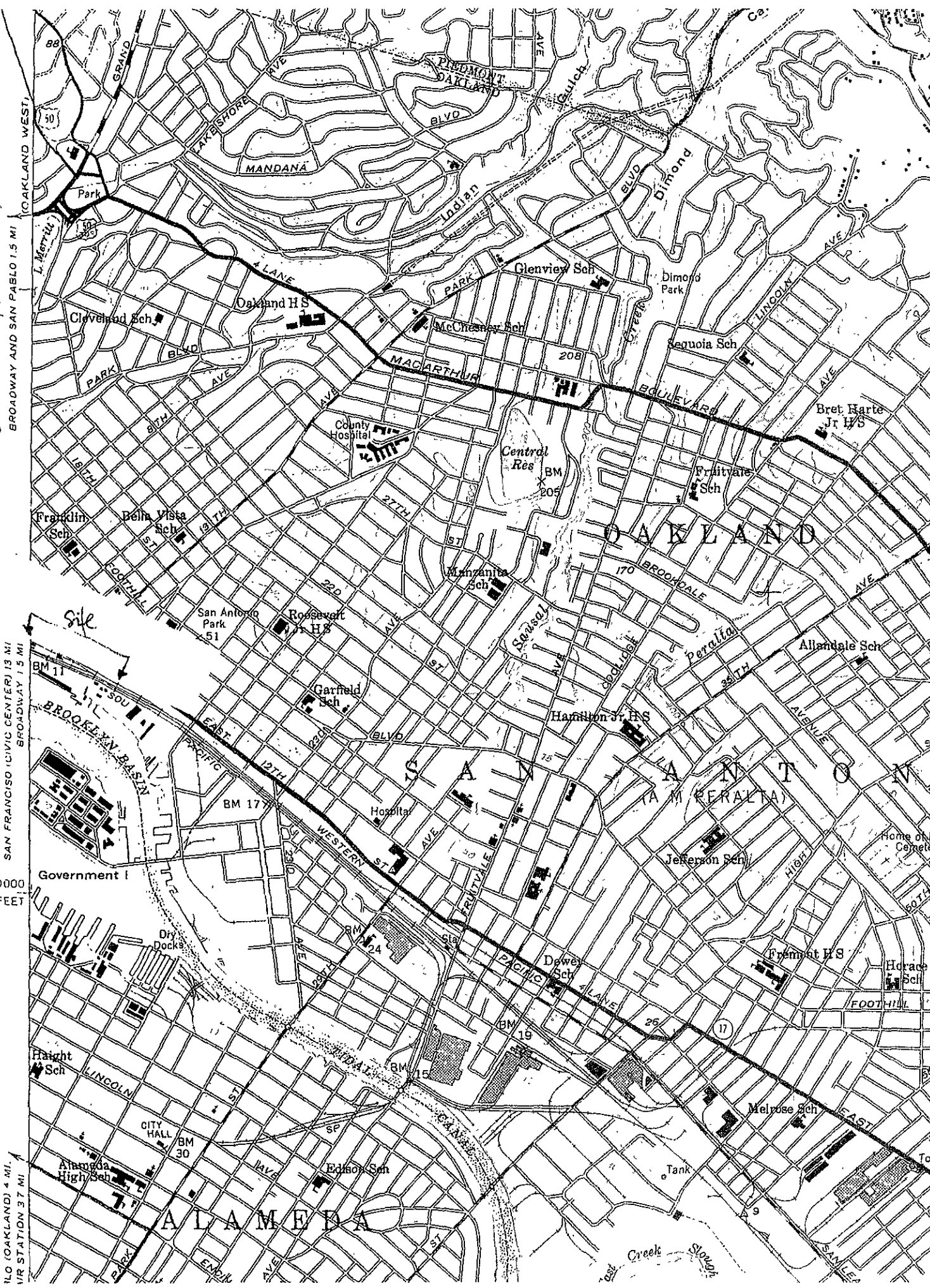
47°30"

ALAMEDA-OAKLAND BOAT CLUB
 Alameda Hospital

AIRPORT 3.3 MI
 STREET 7.3 MI

10 AKLAND EAST
 SAN LEANDRO 9.7 MI.
 HAYWARD 14 MI.

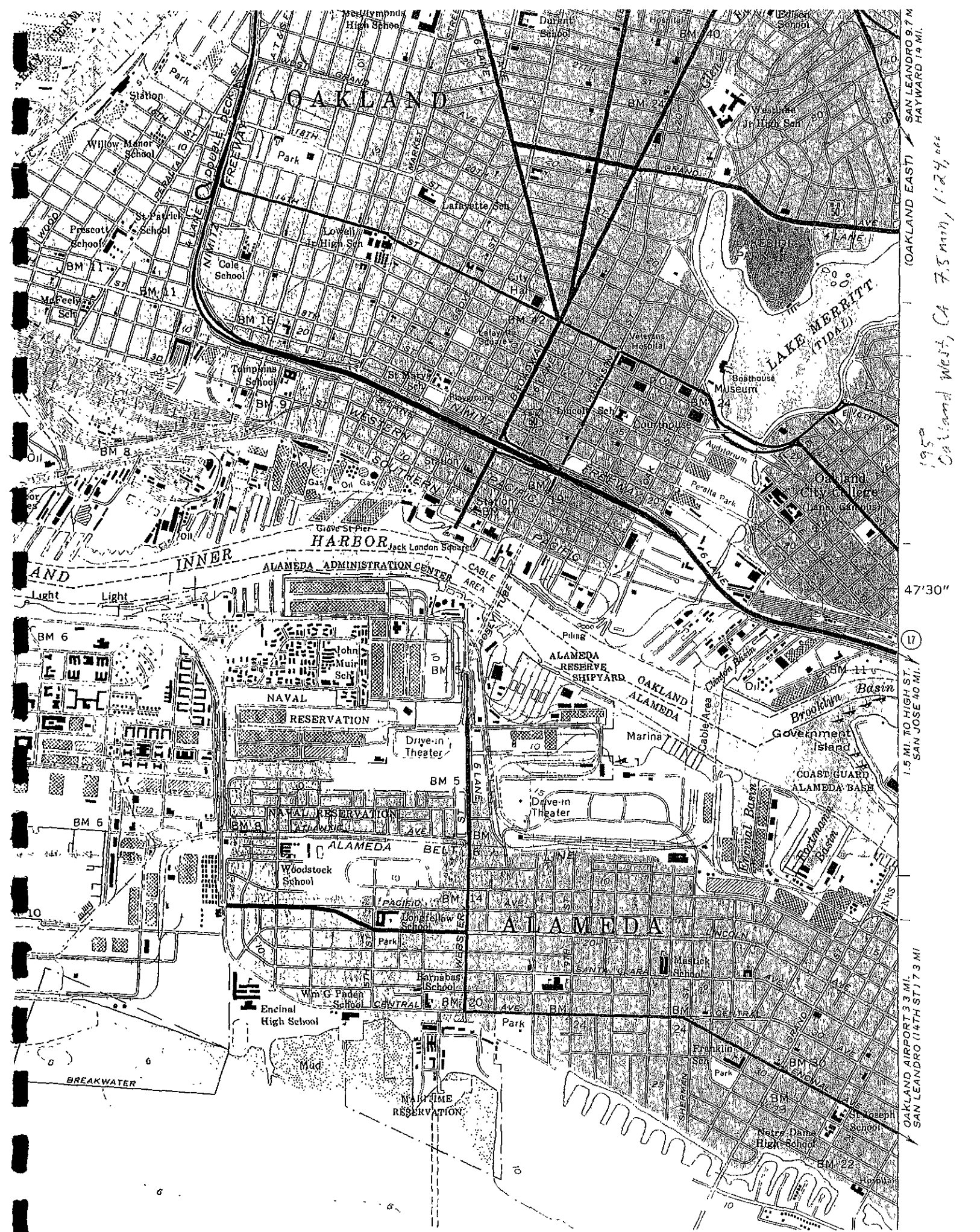
1947
Oakland East, (4 7.5mm), 1:24,000



SAN FRANCISCO (CIVIC CENTER) 13 MI
BROADWAY 1.5 MI

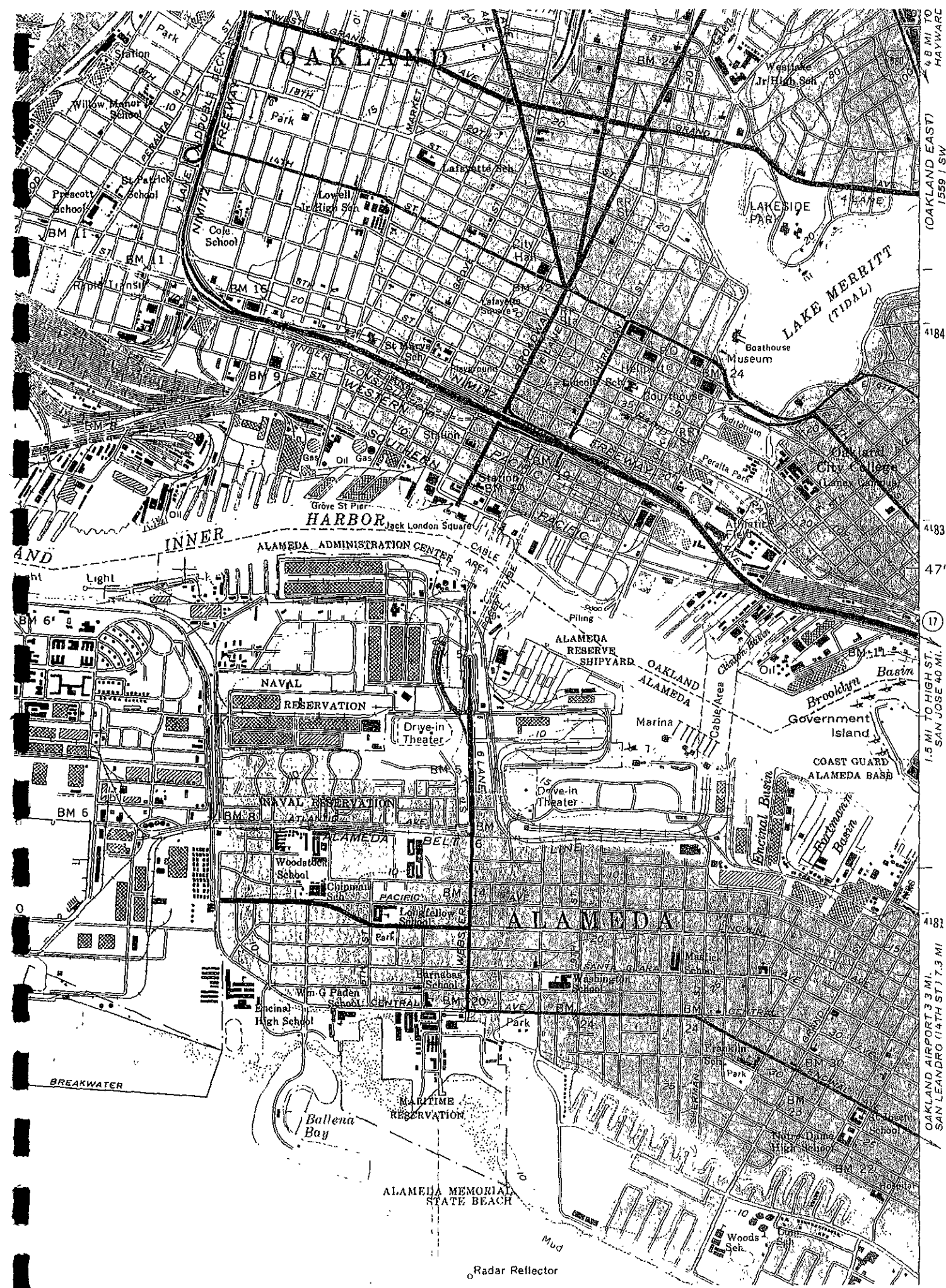
470000
FEET

1.0 (OAKLAND) 4 MI
UR STATION 37 MI



SAN LEANDRO 9.7 MI.
HAYWARD 14 MI.
(OAKLAND EAST)
47°30"
1.5 MI. TO HIGH ST. (17)
SAN JOSE 40 MI.
OAKLAND AIRPORT 3.3 MI.
SAN LEANDRO (14TH ST) 7.9 MI.

1950
Oakland West, CA 7.5 min, 1:24, 66



4.8 MI. TO HAYWARD
 (OAKLAND EAST) 1559 I SW
 4184
 4183
 47'30"
 (17)
 1.5 MI. TO HIGH ST. SAN JOSE 40 MI.
 4181
 OAKLAND AIRPORT 3.3 MI.
 SAN LEANDRO (14TH ST) 7.3 MI.

1968
 Oakland West, CA 7.5 min, 1:27.00
 phot. revised from 1959

○ Radar Reflector

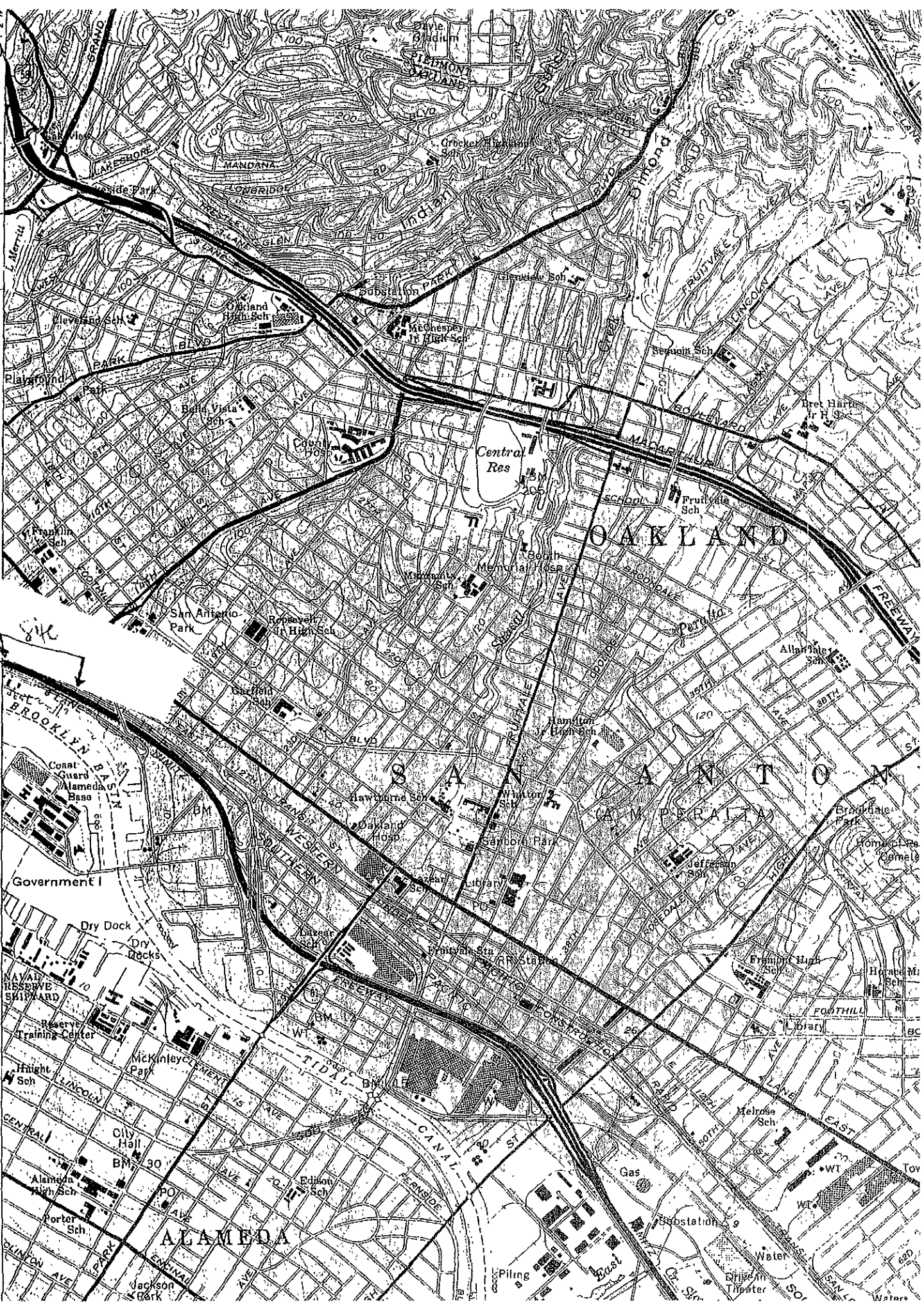
1966
Oakland East, CA 7.5 min, 1:24,000
From 1959
BROADWAY & SAN PABLO 1.5 MI.
SAN
1.2 MI
1559 IV SE
(OAKLAND WEST)

4183

470 000
FEET

4181

4180



816

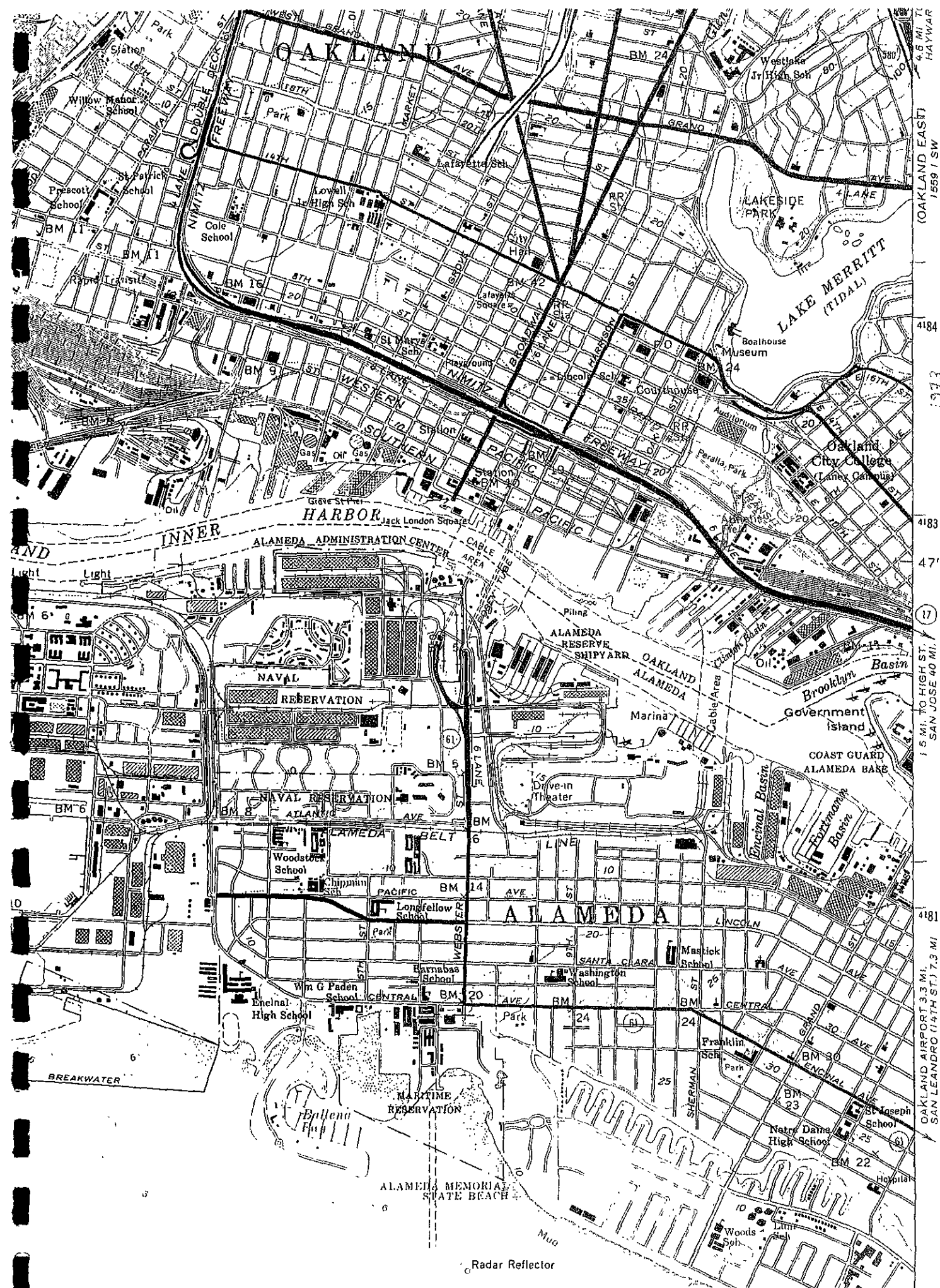
SF-OAKLAND BAY BRIDGE 4.3 MI.
OAKLAND (BROADWAY) 1.5 MI.

470 000
FEET

4181

4180

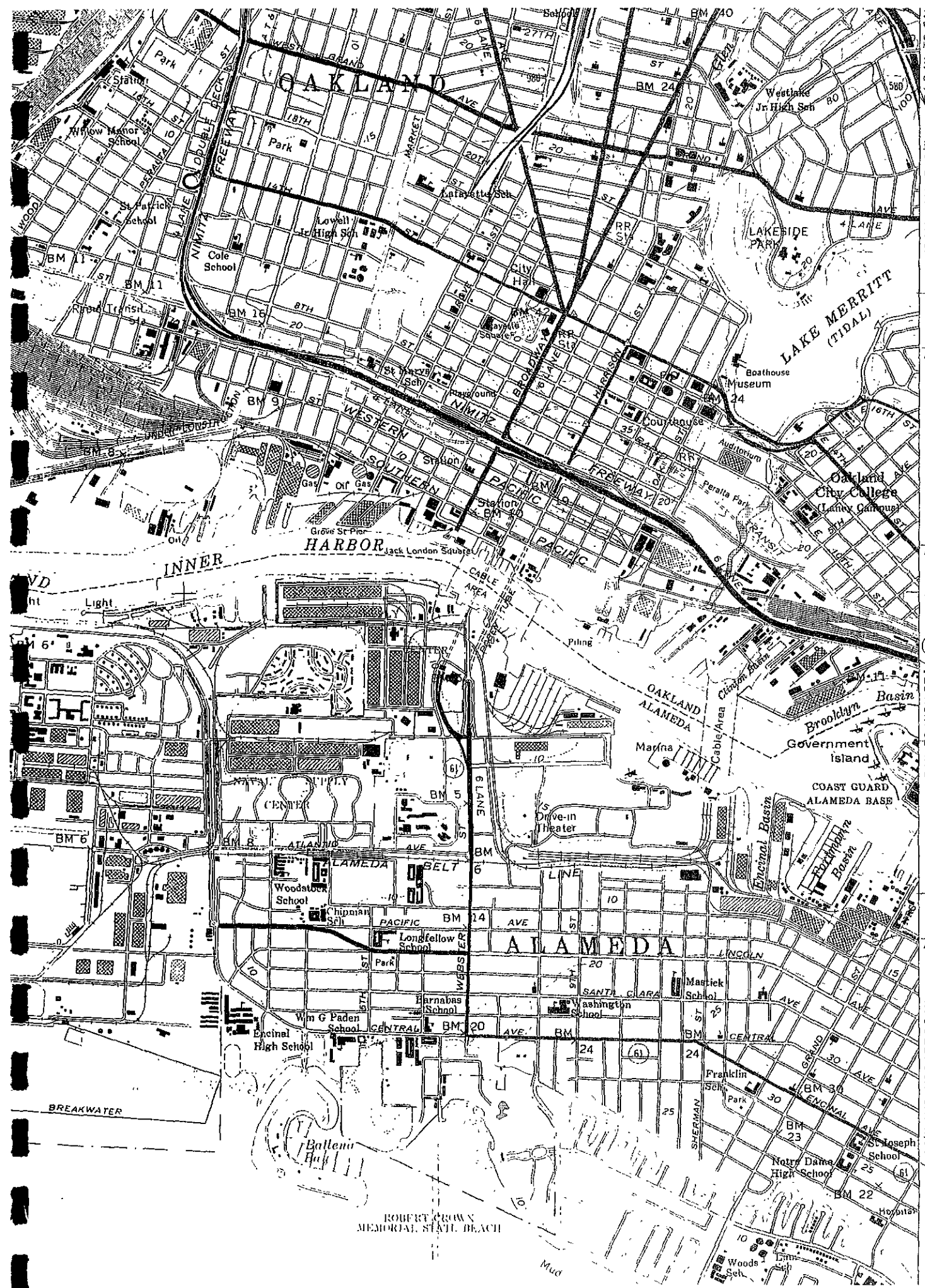
ALAMEDA



1973
 Oakland West, Ct. 7.5 min, 1:2400
 Photo revised from 1957

4.6 MI. TO HAYWARD
 1559 I SW
 4184
 4183
 47'30"
 1.5 MI. TO HIGH ST.
 SAN JOSE 40 MI.
 4181
 OAKLAND AIRPORT 3.3 MI.
 SAN LEANDRO (14TH ST.) 7.3 MI

Radar Reflector



4.8 MI TO CAL
HAYWARD 16

OAKLAND EAST
1959 1 SW

4184

4183

47'30"

17

1.5 MI TO HIGH ST
SAN JOSE 40 MI

4181

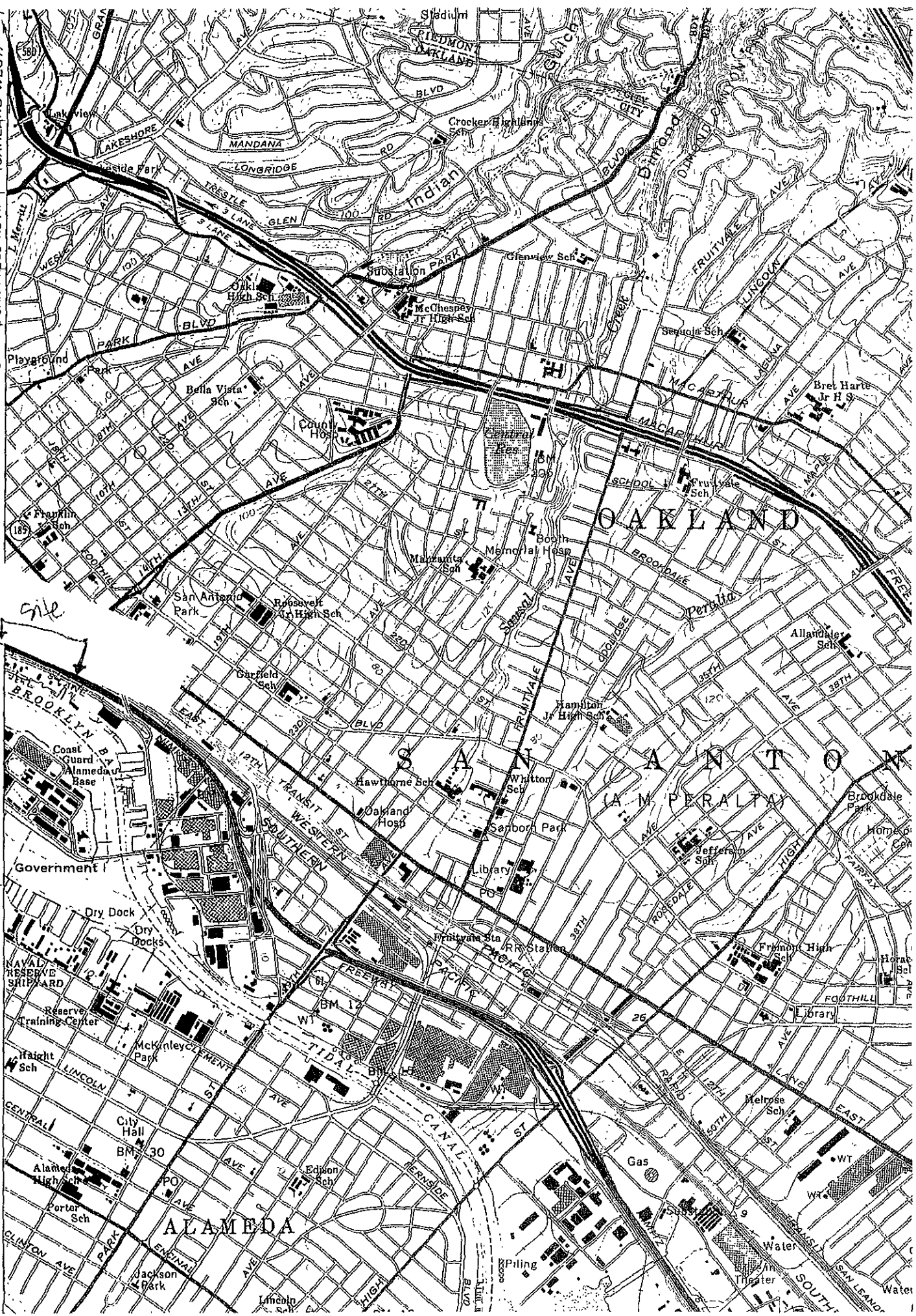
OAKLAND AIRPORT 3.3 MI
SAN LEANDRO (I4TH ST) 7.3 MI

1980
Oakland West, CA 7.5 min / 12.7, 00
Photorevised from 1979

ROBERT CROWN
MEMORIAL STATE BEACH

1980
Oakland East, CA 2.5 minute, 1:24,000
Plot derived from 1959
BROADWAY & SAN PABLO 1.5 MI
1569 IV SE
(OAKLAND WEST)

470 000 FEET
SF-OAKLAND BAY BRIDGE 4.3 MI.
OAKLAND (BROADWAY) 1.5 MI.



site

City Hall

Alameda High Sch

Porter Sch

Clinton Ave

ALAMEDA

OAKLAND

SAN ANTONIO
(CAMPERALTO)

Franklin High Sch

Melrose Sch

Water

Water

Historical Fire Insurance Maps of the Site



"Linking Technology with Tradition"

Sanborn® Map Report

Ship to: Karen Smith
Iris Environmental
1615 Broadway
Oakland, CA 94612

Order Date: 10/30/2001 Completion Date: 10/31/2001

Inquiry #: 697904.1S

P.O. #: NA

Site Name: Port of Oakland - Embarcadero Cove

Address: 1275-1441 Embarcadero

City/State: Oakland, CA 94606

2015150RJC

510-834-4747

Cross Streets:

Based on client-supplied information, fire insurance maps for the following years were identified

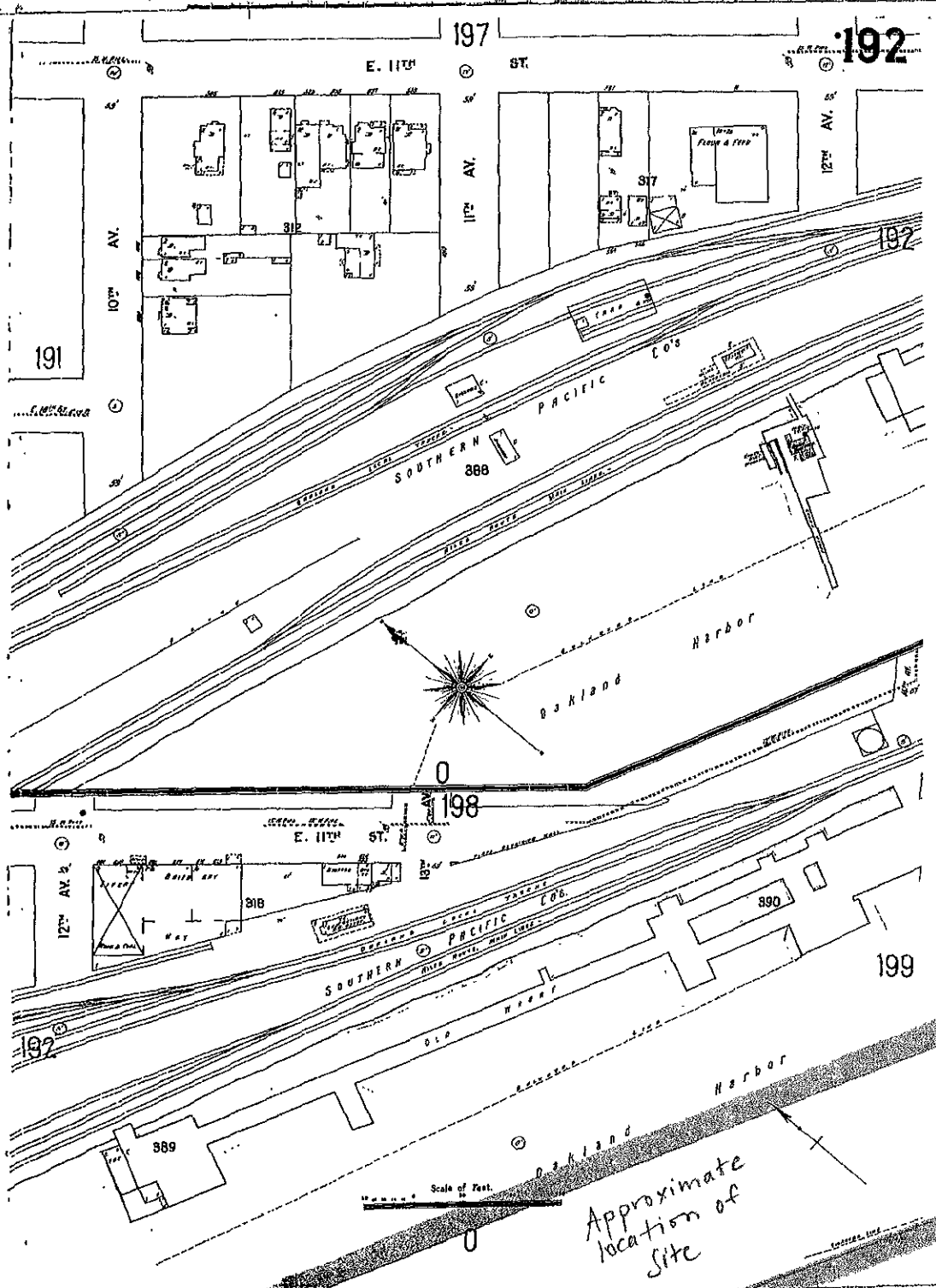
- 1903 - 2 - maps
- 1911 - 2 - maps
- 1950 - 1 - map
- 1952 - 1 - map
- 1953 - 1 - map
- 1957 - 1 - map
- 1959 - 1 - map
- 1960 - 1 - map
- 1964 - 1 - map
- 1965 - 1 - map
- 1967 - 1 - map
- 1969 - 1 - map

Total Maps: 14

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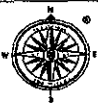
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next
map

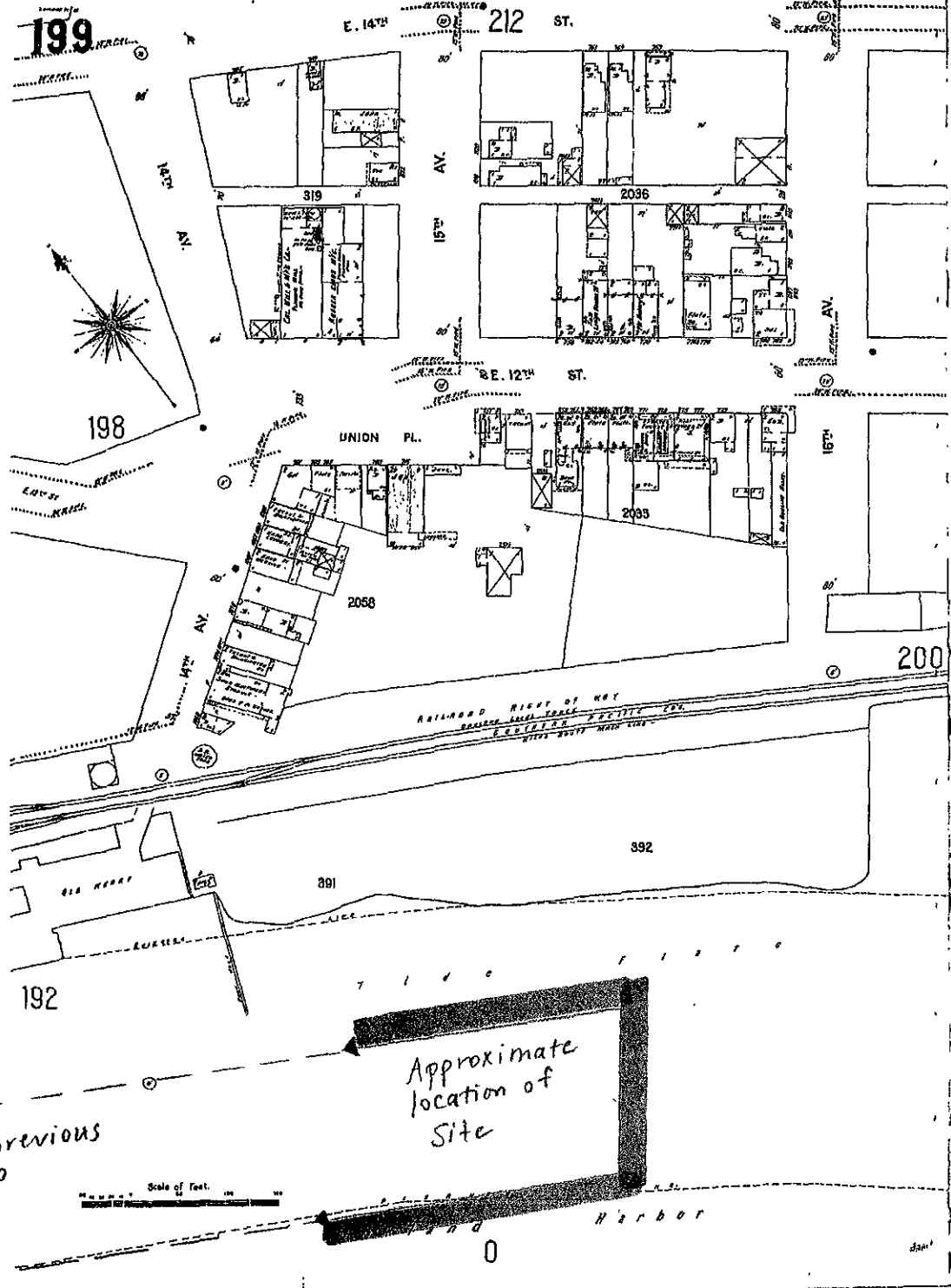


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Year EDR Research Associate

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← See previous map

Approximate location of Site

Scale of Feet. 0 100 200

Harbor

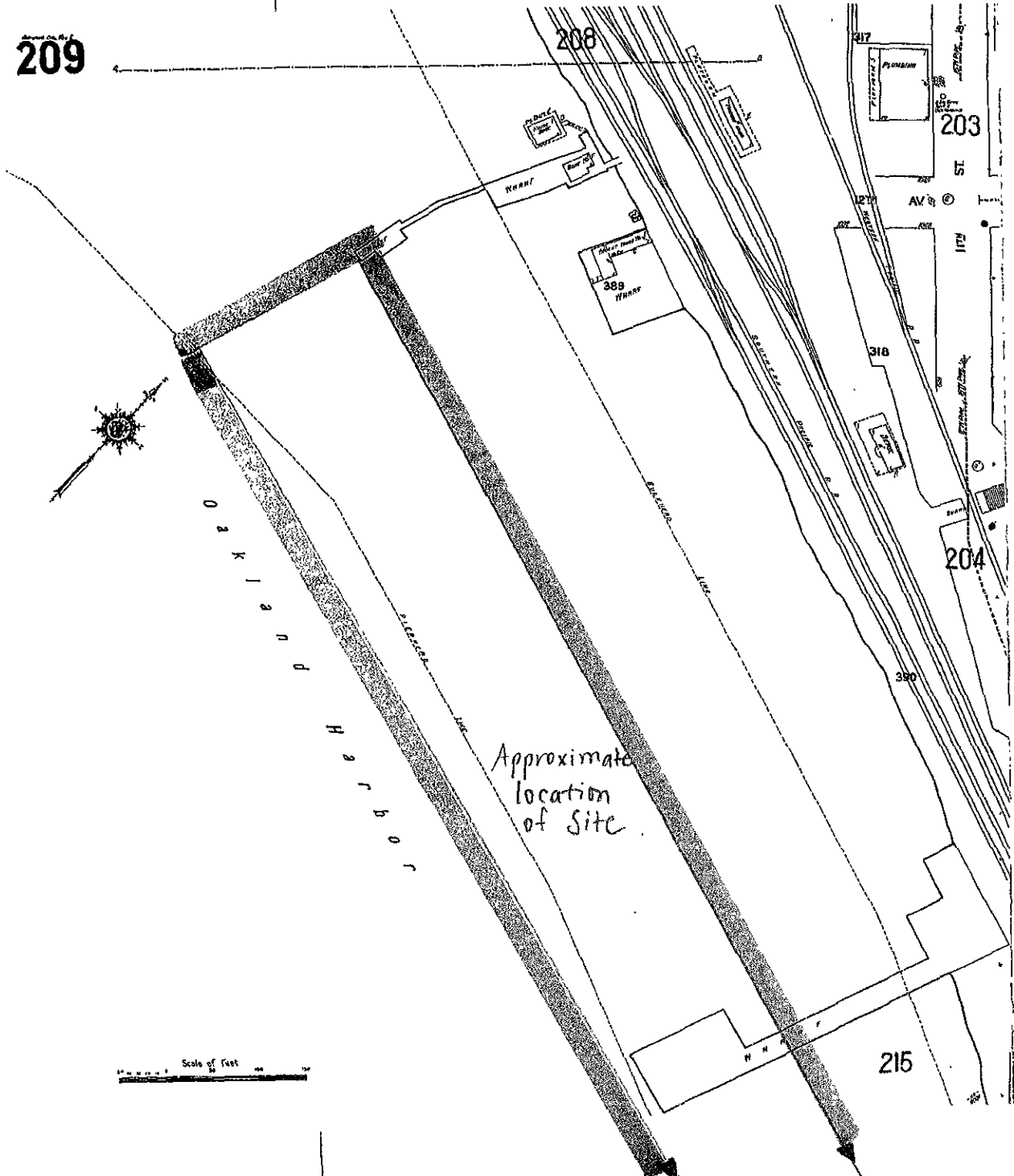
209

208

203

204

215



Approximate location of site

Scale of feet

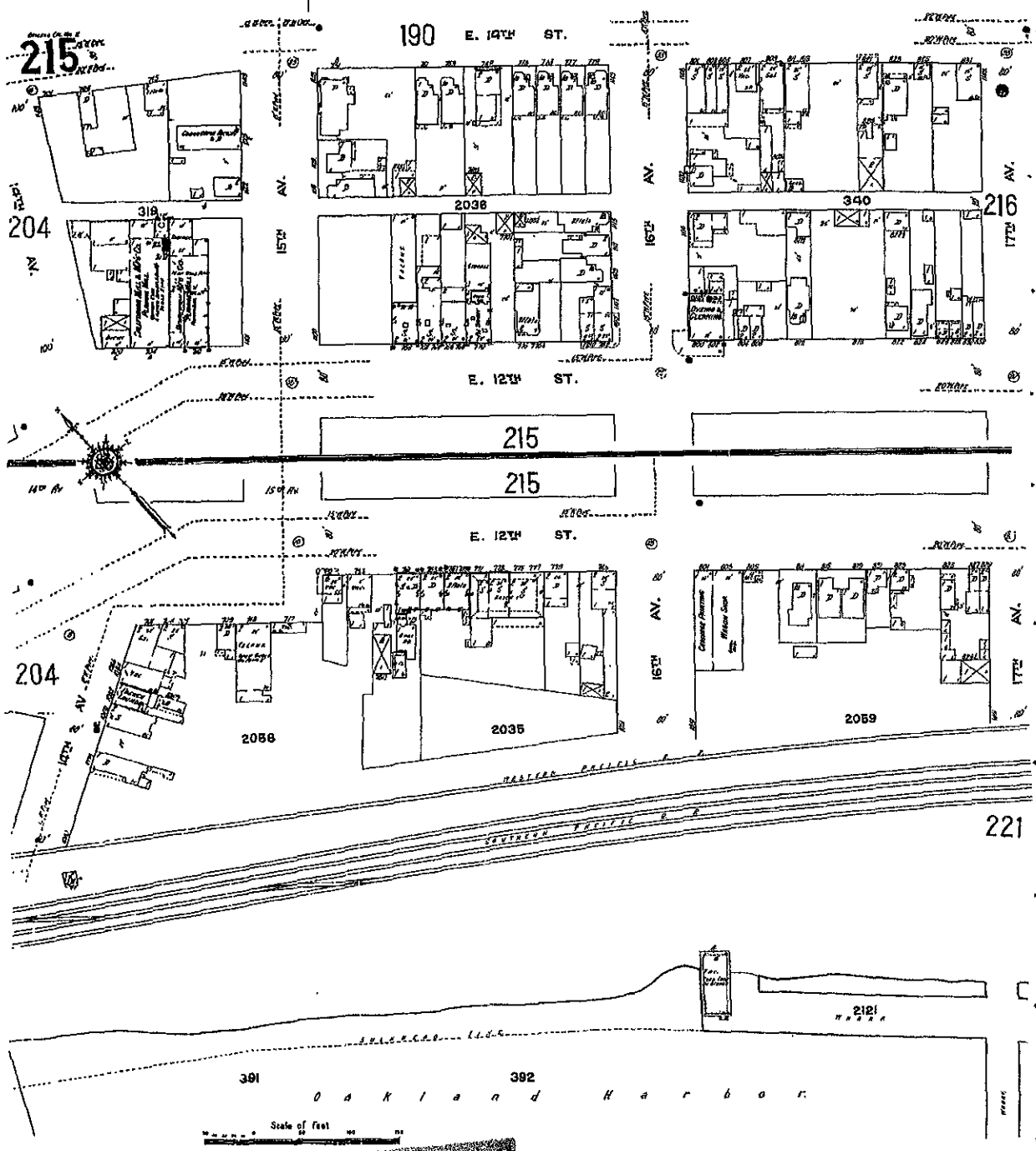
See next page



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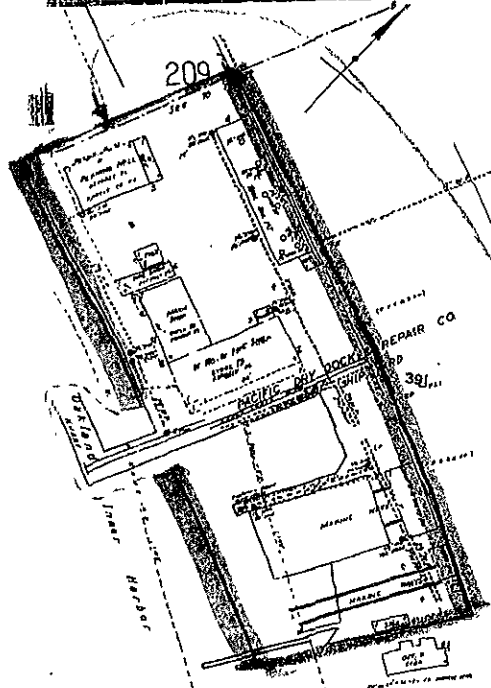
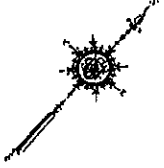
204

209

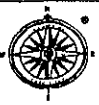
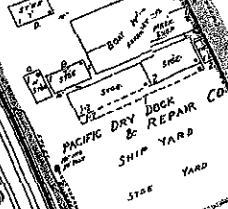
204

215

209



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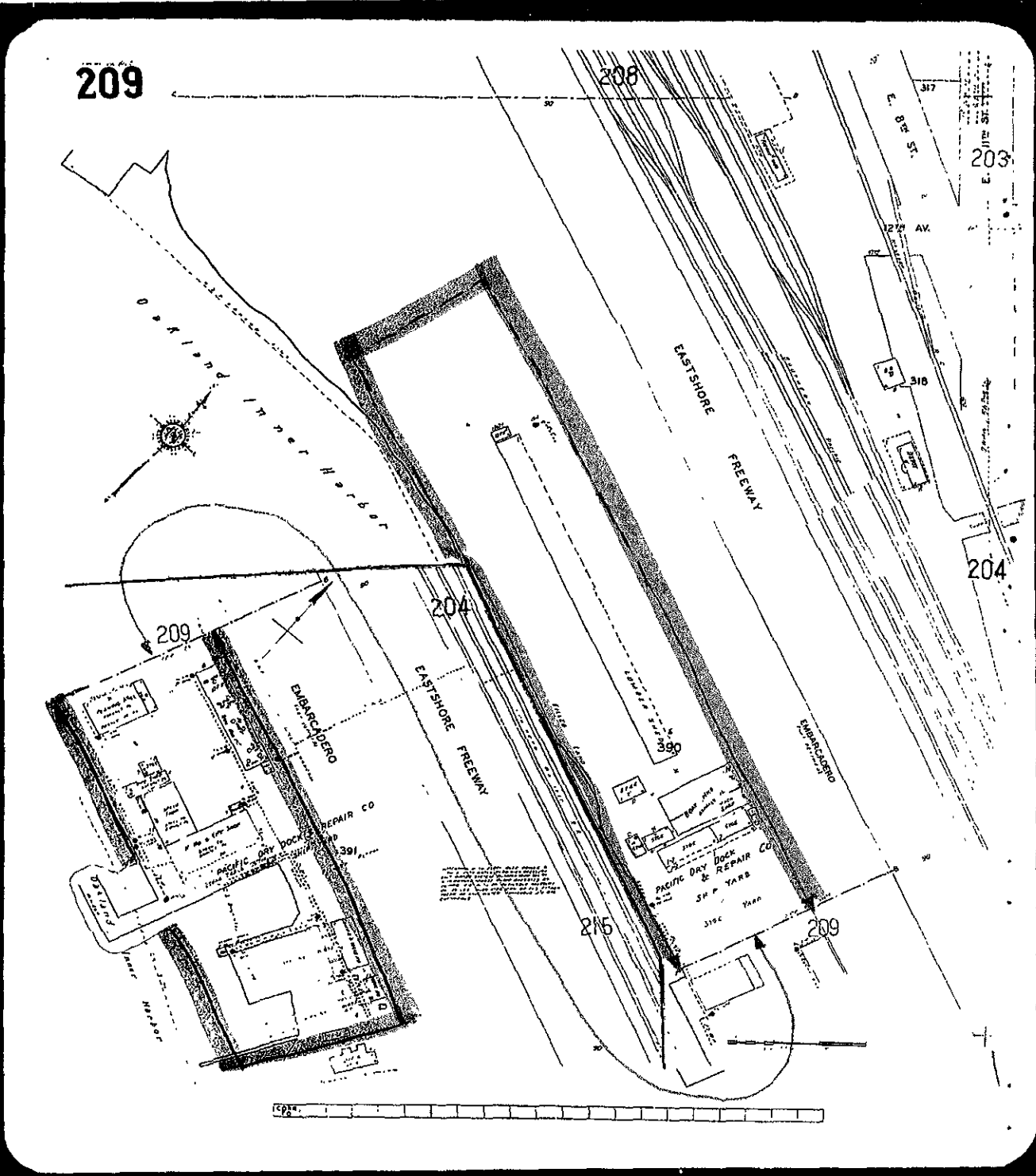



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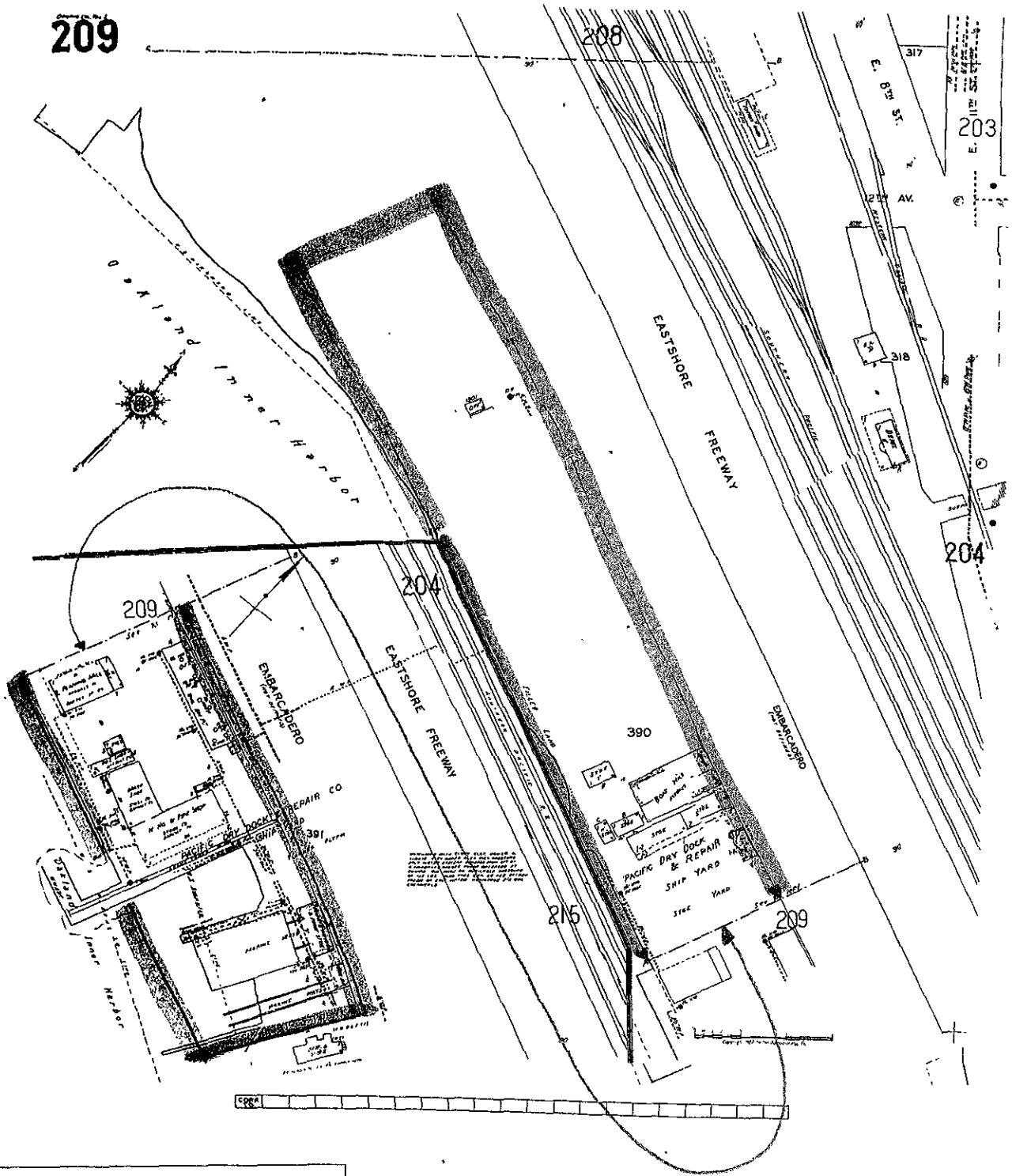
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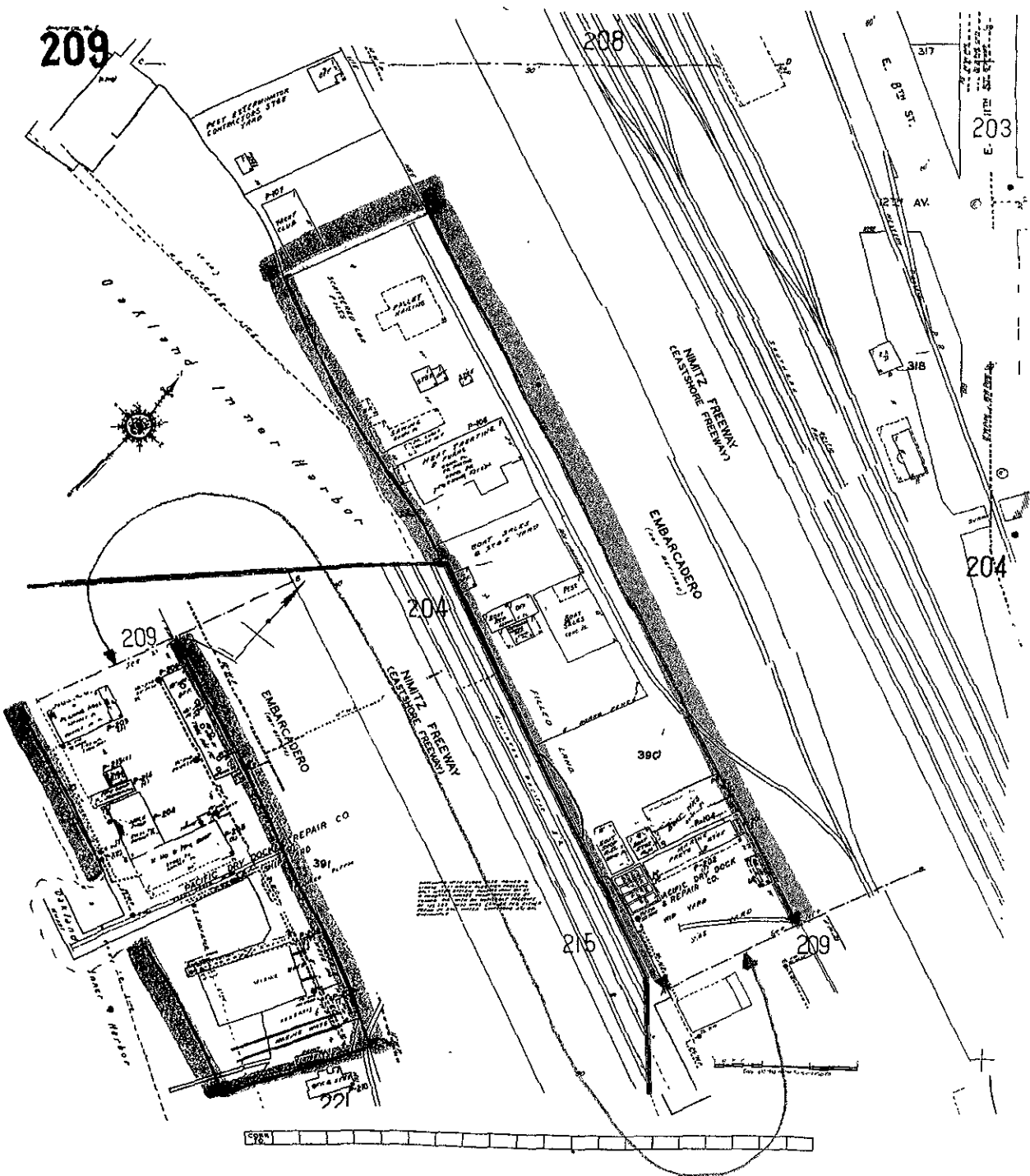



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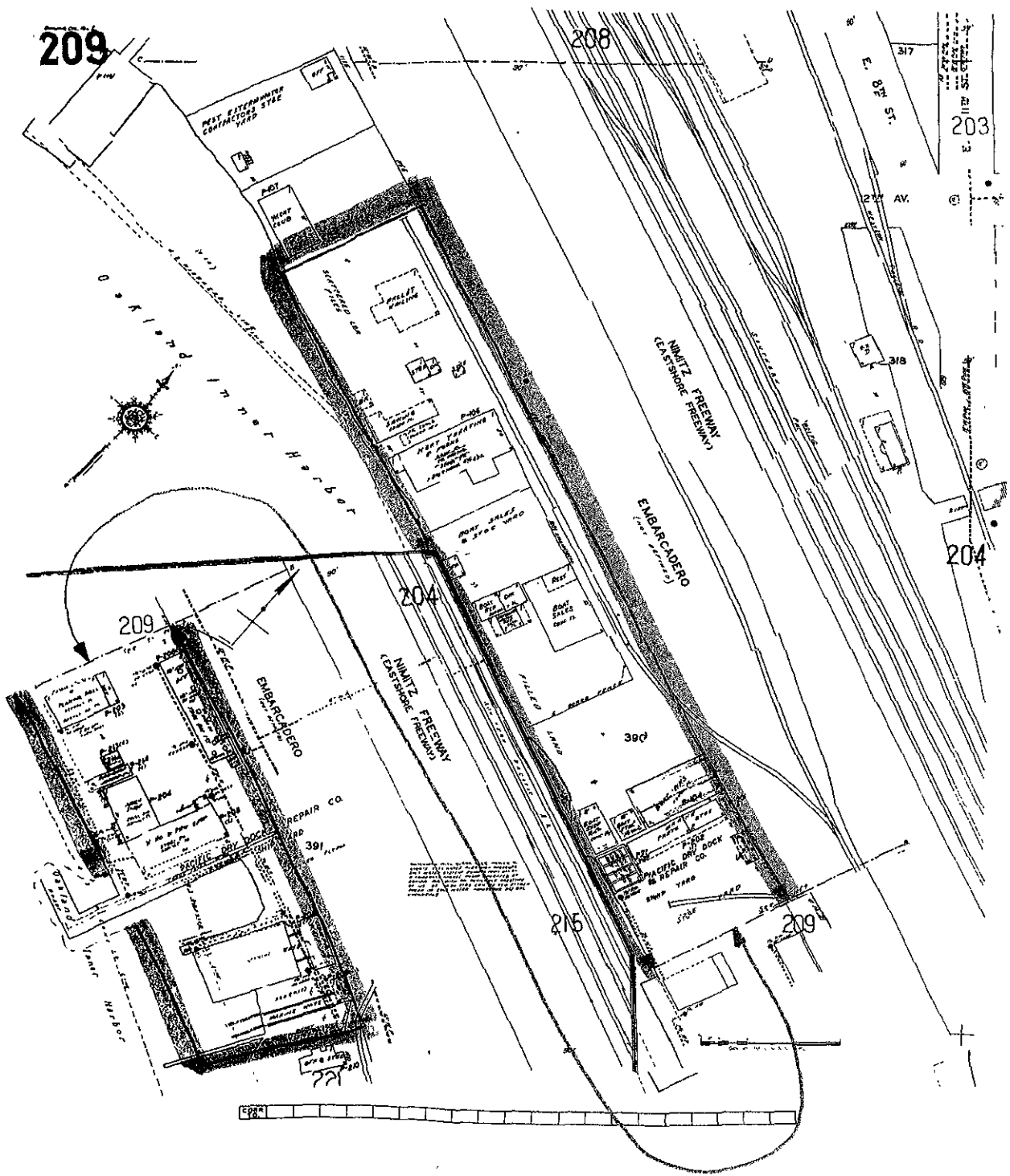
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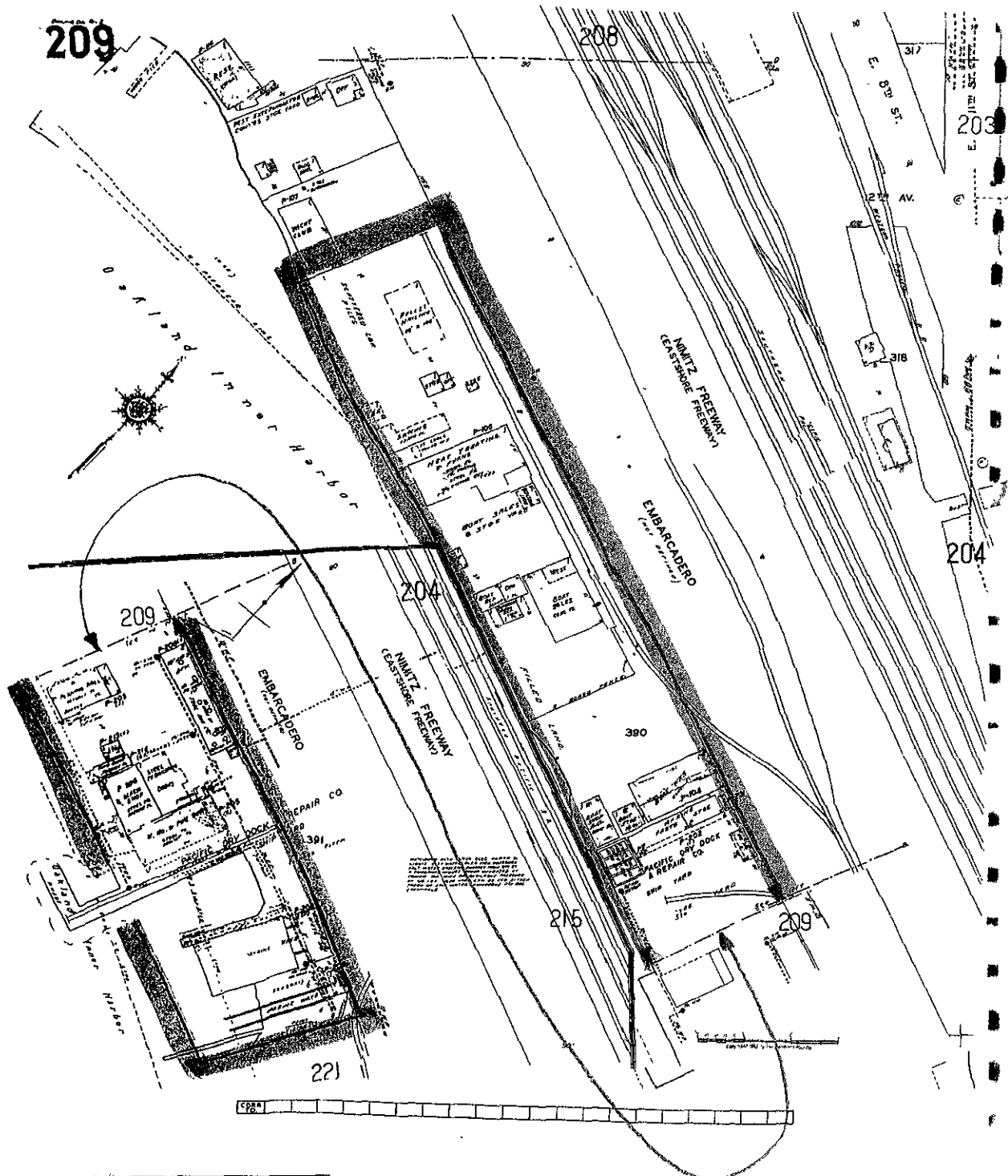
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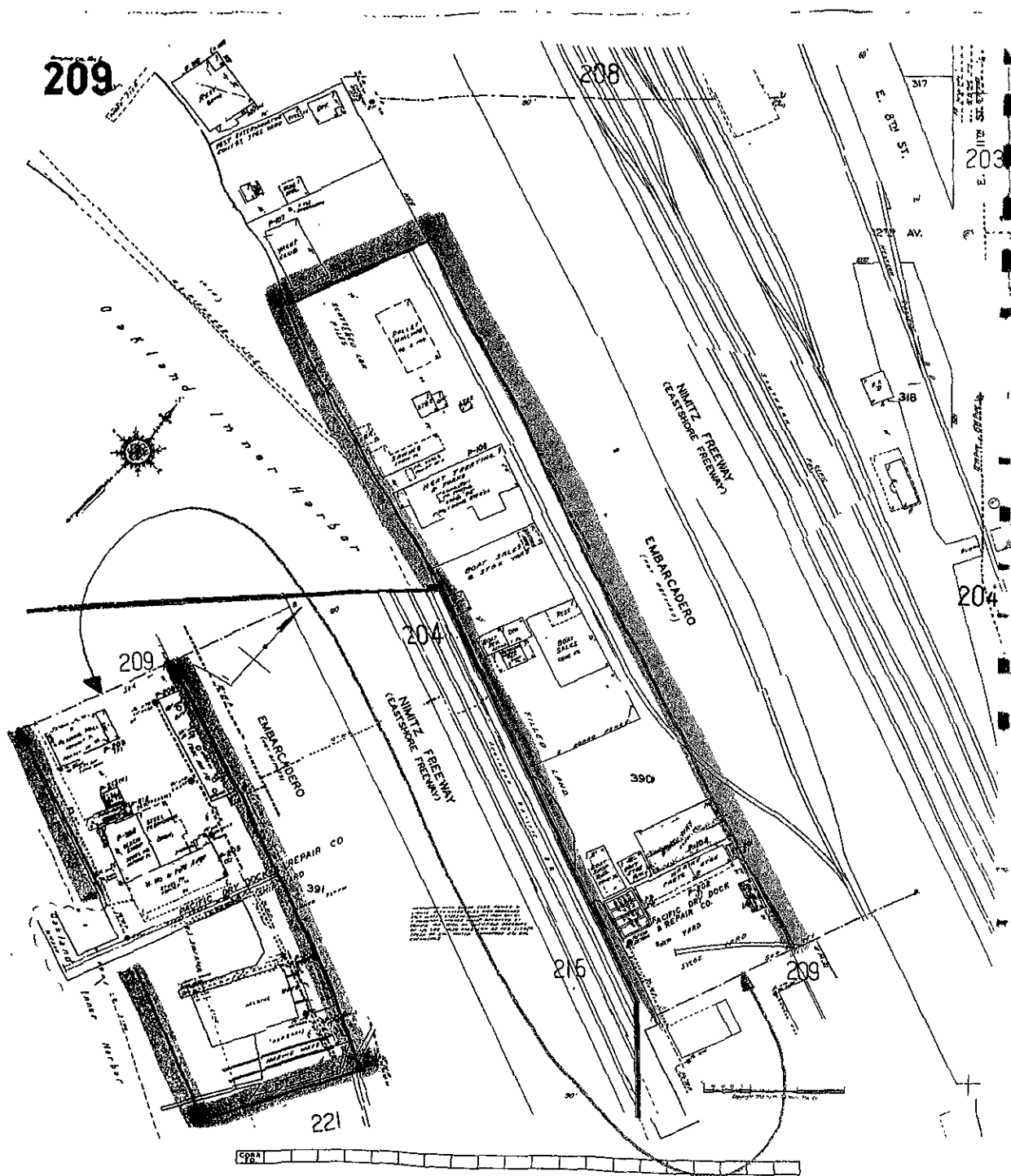
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


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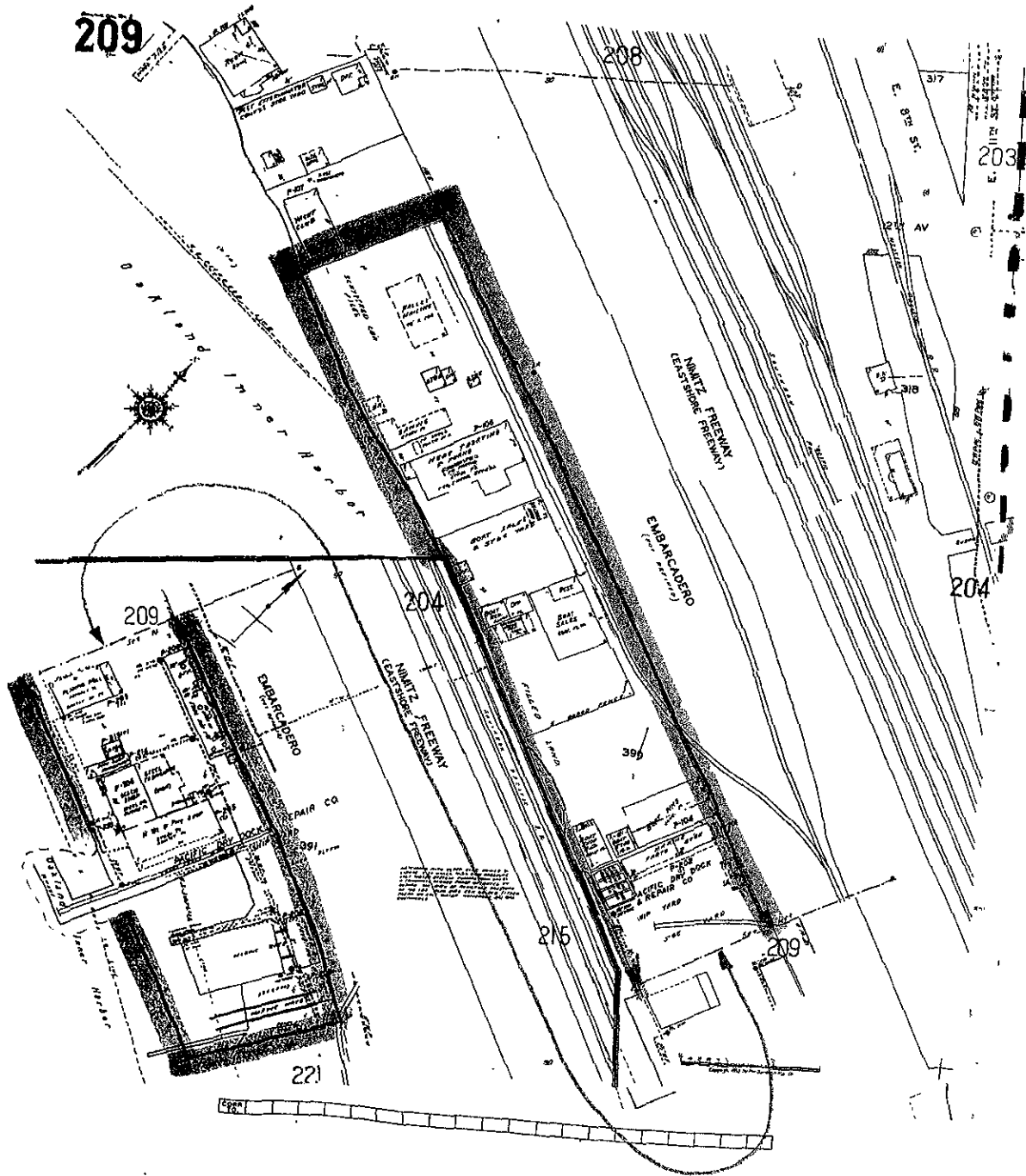
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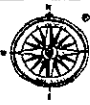


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Historical City Directories listing the Site



PERTAINING TO:
PORT OF OAKLAND - EMBARCADERO COVE
1275-1441 EMBARCADERO
OAKLAND CA 94606

REPORT NUMBER:
444207/767743

PREPARED ON:
11/13/01

ON BEHALF OF:
IRIS ENVIRONMENTAL
1615 BROADWAY # 1003
OAKLAND CA 94612

If you have any questions or comments regarding this report, please contact Fidelity National Information Solutions, Inc. customer service at 1-800-767-0403 (formerly VISTA Information Solutions, Inc.), locally at 858-450-6100, or fax us at 858-450-6195. Thank you for your order.

Overview of the FNIS Multi-Library City Directory Search.

City Directories have been published for many cities and towns across the United States since the 18th Century. Originally a list of town residents, the City Directory became a tool for locating individuals and businesses in a particular urban or suburban area. For each address within an area, City Directories list the name of each resident or, if a business operates from that address, the name and type of business. This historic overview of occupants of a given property is a valuable tool for companies involved in assessing the historic prior use of any residential or commercial property.

While the geographic coverage of City Directories is comprehensive for most major cities, many rural areas and small towns may not be covered. ASTM E1527-00 specifies that a “review of City (Street) Directories at less than approximate five year intervals is not required by this practice.” (ASTM E1527-00, Section 7.3.2.1) In accordance with the above ASTM guidelines, the Fidelity National Information Solutions City Directory Search provides information for the area of interest at approximately five-year intervals.

Fidelity National Information Solutions City Directory research methodology includes searching various libraries and other sources throughout the United States, so as to provide the best chronological coverage possible. For this reason, several libraries may be utilized for one site, to ensure we provide the best possible coverage. Fidelity National Information Solutions City Directory searches include the subject property address and the next closest addresses published. In rural areas, these adjacent properties may be undeveloped. In such case, where no address has been assigned to the adjacent properties, only the subject property will be searched.

The FNIS Multi-Library City Directory search includes the following:

- Overview of the Fidelity National Information Solutions search
- City directory document
- Copies of the City Directory pages for your subject property and adjacent properties (if requested)

The Fidelity National Information Solutions City Directory search reviews the following resources in multiple libraries throughout the United States:

Polk City Directory	Johnson City Directory
Cole Criss-Cross Directory	Price & Lee City Directory
Luedder City Directory	Fitzgerald City Directory
Haines Criss-Cross Directory	Robinson City Directory
Bresser Criss-Cross Directory	Hill City Directory
Wright City Directory	Various County Specific Directories

ELVESSA 94605 OAKLAND

Table listing addresses and phone numbers for Elvessa 94605, including 10102 JONES Kimberly and 10100 GROSSMAN Susan.

ELWOOD AV 94610 OAKLAND

Table listing addresses and phone numbers for Elwood Av 94610, including 300 FINMAN Ann M and 302 HIRLEY AT.

ELYSIAN PL 94605 OAKLAND

Table listing addresses and phone numbers for Elysian Pl 94605, including 1 MAHONEY High and 6 IRWIN E.

ELYSIAN FIELDS DR 94605 OAKLAND

Table listing addresses and phone numbers for Elysian Fields Dr 94605, including 21 XXXX and 22 FOLE Jock P.

EMBARCADERO 94606 OAKLAND

Table listing addresses and phone numbers for Embarcadero 94606, including 105 A DISCOUNT CLUB and 106 SUNSET WHOLESALE CO.

Table listing addresses and phone numbers for Embarcadero 94606, including 109 XXXX and 110 XXXX.

EMBARCADERO W 94607 OAKLAND

Table listing addresses and phone numbers for Embarcadero W 94607, including 1221 XXXX and 1218 HARRISONS MARINE CT.

Table listing addresses and phone numbers for Embarcadero W 94607, including 1855 XXXX and 1856 XXXX.

Table listing addresses and phone numbers for Embarcadero 94606, including 4214 BARBARA K and 4215 HOME HEALTH SERVICES INC.

Table listing addresses and phone numbers for Embarcadero 94606, including 1924 XXXX and 1921 XXXX.

Table listing addresses and phone numbers for Embarcadero 94606, including 1950 XXXX and 1949 XXXX.

Table listing addresses and phone numbers for Embarcadero 94606, including 2000 A F S C INC and 2001 ALMA CO HLTH.

Table listing addresses and phone numbers for Embarcadero 94606, including 2100 XXXX and 2101 XXXX.

EMBARCADERO W 94607 OAKLAND

Table listing addresses and phone numbers for Embarcadero W 94607, including 1221 XXXX and 1218 HARRISONS MARINE CT.

Table listing addresses and phone numbers for Embarcadero W 94607, including 1855 XXXX and 1856 XXXX.

Table listing addresses and phone numbers for Embarcadero W 94607, including 4214 BARBARA K and 4215 HOME HEALTH SERVICES INC.

Table listing addresses and phone numbers for Embarcadero W 94607, including 1924 XXXX and 1921 XXXX.

Table listing addresses and phone numbers for Embarcadero W 94607, including 1950 XXXX and 1949 XXXX.

Table listing addresses and phone numbers for Embarcadero W 94607, including 2000 A F S C INC and 2001 ALMA CO HLTH.

Table listing addresses and phone numbers for Embarcadero W 94607, including 2100 XXXX and 2101 XXXX.

EMERALD 94609 OAKLAND

Table listing addresses and phone numbers for Emerald 94609, including 4101 HANBAL CONSTR CO and 4102 ONEL OWEN ASSOCS.

Table listing addresses and phone numbers for Emerald 94609, including 4155 XXXX and 4156 XXXX.

EMERIC AV 94806 SAN PABLO

Table listing addresses and phone numbers for Emeric Av 94806, including 1311 GARCIA Adria and 1310 RQMS Jose.

Table listing addresses and phone numbers for Emeric Av 94806, including 1405 XXXX and 1406 XXXX.

EMERALD 94609 OAKLAND

Table listing addresses and phone numbers for Emerald 94609, including 4101 HANBAL CONSTR CO and 4102 ONEL OWEN ASSOCS.

Table listing addresses and phone numbers for Emerald 94609, including 4155 XXXX and 4156 XXXX.

SOBRANTE, CALIF 1803

COOL J... 222-8362
COOK J... 222-8362
COTI Mary S PHD... 222-8362

LSTON AV 94602 AKLAND

SACRAMENTO Catering 530 0208
XXXX 00
XXXX 00

LSTON CT 94602 AKLAND

MAUS Fred J 530-1856
XXXX 00
XXXX 00

L TORO RD 94501 LAMEDA

BURMAN Betty 523-4928
BURMAN Fran 523-4928
RISPER Fran 768-8653

L TORO WAY 94564 INOLE

XXXX 00
BURDICK David 724 8873
ANDERSON Fred G 724 1624

ELVERTON DR 94611 AKLAND

DATA SALES CO 338-8800
BUS 0 RES 0 NEW

ELVESSA 94605 OAKLAND

JONES Kimberly 638 1218
JONES Lorraine 562-8959
TODMAN Rosemary 562-8832

ELVIRA PL 94546 CASTRO VALLEY

ALSO SEE EAST-BAY DIRECTORY

XXXX 00
BROWN Hubert 351-0587
BUS 2 RES 0 NEW

ELWOOD AV 94610 OAKLAND

SECOND BIGHT CORP 830-0497
ROLEY A E 524-3246
PARKSON John 634-9346

ELYSIAN PL 94605 OAKLAND

XXXX 00
IRVIN Frank E 635-1519
PETERSON Duane 522-0889

ELYSIAN FIELDS DR 94605 OAKLAND

SMITZ Albert 635 7814
FROE Jack F 638-8026
KISER James M 635-7446

ELYSIAN FIELDS DR 94605 OAKLAND
201 XXXX 00
220 HARMON Colton 632 3245

EMBARCADERO 94606 OAKLAND

MIGNAL-INTL CORP 465 3344
ROBERTY AND WCC 465-2344
WASIE ENCLD TN 465-2506

EMBARCADERO W 94607 OAKLAND

APARTMENTS
APRILS GARDEN 268 0610
BERNICK Mary 825 2932

EMBARCADERO 94606 OAKLAND

XXXX 00
XXXX 00
XXXX 00
XXXX 00

EMBARCADERO W 94607 OAKLAND

APARTMENTS
ANDERSON John W 268 8805
BOCKUS Dick 855 7522
BROOKS Kyle 763 4192

EMBARCADERO

EMBARCADERO 94606 CONT
45 XXXX
51 DUNN'S LIGHTHOUSE
53 XXXX
55 VICTORIA STN RESTAURANT
105 FORD MOTOR COMPANY

EMBARCADERO COVE

EMBARCADERO COVE 94608 OAKLAND
SEE EMBARCADERO
EMERALD 94609 OAKLAND
4103 AMARAL ANTHONY
WESTWOOD L
1010A FORBATH TED

EMERSON 94610

EMERSON 94610 OAKLAND
APARTMENTS
BANKS WM H JR
COLLINS GARTH
CHRISMAN ROBY

EMERSON 94703

EMERSON 94703 BERKELEY
BERKELEY
2001 XXXX
2008 BASTIEN B
EMERY ANDY

EMERSON AV 94806

EMERSON AV 94806 SAN PABLO
1311 ALVAREZ HUO
132 DIONISIO IRON WORKS
133 BELCHER GLADYS

ZIP CODE 94705

ZIP CODE 94705
2103 XXXX
2108 KIRBY DAVID A
2111 MARGEN PAUL H

THE HAINES

CASTRO VALLEY

ELYSIAN FIELDS DR 94605 CA 368-5171 5
MOORE TOM REALTY 260
ROSS RD 260
FORD A 270
JOHNSON LEROY E 279
MANNETTE MM A 280
CHAUMETTE SERGE F 290
HIGAN MICHAEL J MO 310
STEWART J M SYMON 311
ENGELMAN G C 320
CORREIA JOHN M 321
BEYDA LOUIS 330
SCARPA LOUIS F 331
FARLEY RAYMOND M 339
GUILTON HARVIE JR 340
HAWKINS C E 347
XXXX 350
SOLARI HARID 350
XXXX 360
MCCULLOUGH F L 363
GELSON ALFRED P 380
TRIBBLE IKE 390
DOOSON LOIS A
LEE DOOSON CHILDREN
398 BRUNO VITO
400 XXXX
422 XXXX
448 WOLFE I
WOLFE L
500 MARTIN C H
LEE DAVID L
520 SCOTT WM J
530 GAVAZZA HARID
540 XXXX
550 ROTNER OAVL L OR
ROTNER GLEN
560 BOLTWOOD J M
580 OSCAR PRESCOSONS
601 SHERMAN M P
610 MCNEELY WARREN
NO *FEDERATION CO ALTRS
NO *SEQUOYA HIGHLANDS
*BUS 79 RES 5-NEW

EMBARCADERO 94606 CA 331
WEINER CHAS R
WILLIAMS IRA JAS
7...APARTMENTS
ALTER J C
BAKER D G
BENNER DOUGLAS
BIGLER ROGER A
BRACKEYER ARLYN
CLARK DON C
CLARK RICHARD O
*COMMUNCTS CNLSINTS
DEYOUNG PAT
DURVAL GEO
FERGUSON WM H
GARRETT WKE H
JACKSON JERRY S
KRIMINSKI H M
LANGRIDGE RAY L
LAZARUS KENT R
MCRAE M
MECUM F
MIGA DENNIS
*HULFORD DON
REDMON GENE
SAYLOR RICHARD L
SHOENAKER L
SIXT JOHN M
WILSON PAUL M
WRIGHT J J
7...
8 XXXX
11...BUILDING
*DACHARACH ALVIN H
*HANKERS LIFE CO
*BENNETT RICHARD C
*COLOR DEPOSITION
*GROUSE HINDS LGHTNG
*GUSTON FINCL CORP
*CUSTOM EASING CO
*GONWILLIN ENTERPRISES
*DON WILSON YACHT
*GEORGE J FRANK
*HARBAUGH ROBERT I
*HURD IRVING J JR
*KAUFMAN LAURENCE
*KELLEY COLIN C
*LOWNEY KALVEER ASC
*MEYER HERMAN C
166 *MINIETTA M P
*HONRISON JACKSON E
*OWEN J
*PISOR ELLIOTT M
*PORTOBELLO
*PORTOBELLO FOOD
*PORTOBELLO MARINA
*STUTO WACHTLER
*THOMAS FRANK J
*VADNEY LEROY F
*WICKERSHAM JAMES
*WILSON D YACHT SLS
*WYSINGER BARBARA J
11...
13 *BAY AREA MAINTENANCE
15 *RUSTY SCUMPER THE
17 *PROGRESS TECH CO
VAUGHAN WILLIAM E
18 *GENESIS
19 *RAHM ADVERTISING
*RESOR ANDERSON ADV
21 DURANT D O
25 *PARRY GEO PITRN WRK
27 *AUGUST BENTR KECO
31 *ATIKEN JAMES B
*COUSTEAU ATIKEN INC
35 *CORNET STEPHEN H
*DENT LARRY B
*FARROW HAROLD R
*FARROW SCHILDHOUSE
*RICHTER STEVEN A
*ZIMMERMAN ALAN P
37 XXXX
45 *TANK HOUSE THE
55 *VICTORIA STN RSTRNT
321 *MERRITT SALES CO
*HERRITT SHIP REPAIR
351 *FLASHER CO THE
364 XXXX
380 *ALBERTS STEAK SAN
*AMER BOATING ASSN
*COMNY MGMT ASSOC
*COONEY MARTIN J
*COONEY STUDIOS
*JOES BARBER SHOP
*STEAK SAN BY ALBERT
384 *GOATLEY MERLE D
*H M S LIMITED
401 *KAISER SANDGRAVEL
444 *JACK LONDON INN
449 *PUFFS ENTERPRISE
457 *HARBOR ENGINEERING
463 *STUOIG THIRTY THREE
466 *DECORATIVE ARTS
485 XXXX
499...BUILDING
*BC ENGINEERING
*FOX LYNN CORP
5 *HILL JAMES T
*OAKLD REHAB INC
*SILVEIRA J M CO
*SILVEIRA J M DVLPH
*SILVEIRA J M INVST
*SKYLINE MOTORS
*STRONGUIT EBEN
*SUNSET FABRICATORS
*UNITD PAC BUILDERS
*WATSON ASSOCIATES
499...
559 *GOULD WALLYECO
601 XXXX
625 MILLER DALE D
SOMER GLEN
*THRAL ED YACHTS
WRIGHT GENE D F

EMBARCADERO 94606 OAKLAND

EMERALD 94608 CA 103
EMERALD TRUCKING 893-8011 5
EMERALD STRUT 839-9690 4
EMERALD SUPERIOR STRUT & HNGR 839-9690 4
EMERALD LIQUID CARBONIC CRPA51-4100
EMERALD MUSTY RHODES MARINE 452-0400
EMERALD RHODES DUSTY MARINE 452-0400
EMERALD SMITH T LEON 452-2036+6
EMERALD WHITE STANLEY C 763-5127+6
EMERALD WILLIAMS JOHN C 465-4658 4
EMERALD WOPS ENTERPRISE 832-3350 3
EMERALD WOPSCO INC 892-5351 3
EMERALD WYEAH DOCK 893-6700
EMERALD XXXX 00
EMERALD WYARK THE 893-5900
EMERALD WYBARGE ROY L INC 451-7273 5
EMERALD WYJONSON JOSEPH CO 832-9420 4
EMERALD WYMAN INDUSTRIES INC 932-5420 4
EMERALD WYBARCLAY JACKS 261-3287 5
EMERALD XXXX 00
EMERALD WYANG PLANK 533-8321 2
EMERALD WYJOHNSON RALPH D 534-3400 5
EMERALD WYAPRIL SMALL MRS BOATS 534-6609+6
EMERALD WYDOLAN RICHARD 534-2628 5
EMERALD WYDODDS RODNEY W 261-5528+6
EMERALD WYDANKLAND MARINA 533-0107
EMERALD WYDANKLAND YACHT SALES 261-0600+6
EMERALD WYWHITMER BILL 535-2097+6
EMERALD WYBIG ZAG MARINE SERV 534-5891+6
EMERALD WYJOHNSON MARINE 533-9290
EMERALD WYSTEVES MARINE INC 534-6700 3
EMERALD WYCROWLEY LNCHEBOAT 839-4020
EMERALD WYPAC DRY DOCK REPAIR 839-4020 5
EMERALD WYATL EXPANSION JOINT 536-0935
EMERALD WYCAL HILLING CORP 532-8530+6
EMERALD WYDOMASCO BAKERS SPLY 532-8530 5
EMERALD WYSUTTON INTERNATIONAL 532-8126+6
EMERALD WYWHEELER SERVICE CO 532-3330+6
EMERALD WYPA 1 BOAT REPAIRING 532-9796
EMERALD WYHANI KAI HARBOR 261-6932 5
EMERALD WYTYE W K D INTERNATIONAL 261-6344+6
EMERALD WYSPACIFIC HROWD SALES 261-6342
EMERALD XXXX 00
EMERALD WYDASCO INC 532-4936 2
EMERALD WYPAK WELLS CNSTR PROSS 532-4936+5
EMERALD WYROCKMONT SALES CO 532-8327 2
EMERALD WYWALTERS ENGINEERING 533-5900+6
EMERALD WYREXFORD PRE PAKT 0536-8200 2
EMERALD WYSAFETY MEAT EGG DIV 536-8300
EMERALD WYWALTERS ENGINEERING 533-9511
EMERALD WYFEIGE ELVIN W 261-1212
EMERALD WYKOWPIRA 261-4702+6
EMERALD WYHULLER G 831-0000
EMERALD WYDANKLAND YACHT CLUB 532-6920
EMERALD WYPAK YACHT SVS DIV 536-4836 5
EMERALD WYMOULLEY JAS L DR 534-8012+6
EMERALD XXXX 00
EMERALD WYPARKER DIESEL RPR 534-1547
EMERALD WYSTAR MARINE ENGINE 261-3510 4
EMERALD WYDWERKS SAIL ASSOC 534-1904 3
EMERALD WYCHRIS CRAFT PARTS 534-1550
EMERALD WYMARINE PARTS CO 534-1550
EMERALD XXXX 00
EMERALD WYEMBARCADERO COVE 536-6760 2
EMERALD WYGAMERSTON LGRN LUMBR 834-6464
EMERALD WYGREEN LUTHER O 534-6644
EMERALD WYQUINNS LIGHTHOUSE 536-2050 3
EMERALD WYSAILBOATS INC 536-6760
EMERALD WYEMSCO PLYWOOD 536-4733
EMERALD 1970 XXXX 00
EMERALD 1989 XXXX 00
EMERALD WYFORTY PLUS CALIF 534-4194 2
EMERALD WYBAYTRONICS CORP 261-0100 5
EMERALD WYCAROL FISHERMAN SVS 534-0795+6
EMERALD WYDODCK GAFE 261-1502 4
EMERALD WYEVANS RADIO DOCK 534-7300
EMERALD WYRUNNER L D 533-8314+6
EMERALD WYACME PALLET CO INC 261-1843 4
EMERALD WYSONOMA PACIFIC CO 261-1843+6
EMERALD WYPINEAPPLE SAILS 444-4321+6
EMERALD WYRICHARDS SVANHEECKER 444-4321+6
EMERALD *144 BUS 125 RES 118 NEW

EMERALD 94609 OAKLAND

EMERALD 94608 CA 103
EMERALD TRUCKING 893-8011 5
EMERALD STRUT 839-9690 4
EMERALD SUPERIOR STRUT & HNGR 839-9690 4
EMERALD LIQUID CARBONIC CRPA51-4100
EMERALD MUSTY RHODES MARINE 452-0400
EMERALD RHODES DUSTY MARINE 452-0400
EMERALD SMITH T LEON 452-2036+6
EMERALD WHITE STANLEY C 763-5127+6
EMERALD WILLIAMS JOHN C 465-4658 4
EMERALD WOPS ENTERPRISE 832-3350 3
EMERALD WOPSCO INC 892-5351 3
EMERALD WYEAH DOCK 893-6700
EMERALD XXXX 00
EMERALD WYARK THE 893-5900
EMERALD WYBARGE ROY L INC 451-7273 5
EMERALD WYJONSON JOSEPH CO 832-9420 4
EMERALD WYMAN INDUSTRIES INC 932-5420 4
EMERALD WYBARCLAY JACKS 261-3287 5
EMERALD XXXX 00
EMERALD WYANG PLANK 533-8321 2
EMERALD WYJOHNSON RALPH D 534-3400 5
EMERALD WYAPRIL SMALL MRS BOATS 534-6609+6
EMERALD WYDOLAN RICHARD 534-2628 5
EMERALD WYDODDS RODNEY W 261-5528+6
EMERALD WYDANKLAND MARINA 533-0107
EMERALD WYDANKLAND YACHT SALES 261-0600+6
EMERALD WYWHITMER BILL 535-2097+6
EMERALD WYBIG ZAG MARINE SERV 534-5891+6
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EMERALD WYCROWLEY LNCHEBOAT 839-4020
EMERALD WYPAC DRY DOCK REPAIR 839-4020 5
EMERALD WYATL EXPANSION JOINT 536-0935
EMERALD WYCAL HILLING CORP 532-8530+6
EMERALD WYDOMASCO BAKERS SPLY 532-8530 5
EMERALD WYSUTTON INTERNATIONAL 532-8126+6
EMERALD WYWHEELER SERVICE CO 532-3330+6
EMERALD WYPA 1 BOAT REPAIRING 532-9796
EMERALD WYHANI KAI HARBOR 261-6932 5
EMERALD WYTYE W K D INTERNATIONAL 261-6344+6
EMERALD WYSPACIFIC HROWD SALES 261-6342
EMERALD XXXX 00
EMERALD WYDASCO INC 532-4936 2
EMERALD WYPAK WELLS CNSTR PROSS 532-4936+5
EMERALD WYROCKMONT SALES CO 532-8327 2
EMERALD WYWALTERS ENGINEERING 533-5900+6
EMERALD WYREXFORD PRE PAKT 0536-8200 2
EMERALD WYSAFETY MEAT EGG DIV 536-8300
EMERALD WYWALTERS ENGINEERING 533-9511
EMERALD WYFEIGE ELVIN W 261-1212
EMERALD WYKOWPIRA 261-4702+6
EMERALD WYHULLER G 831-0000
EMERALD WYDANKLAND YACHT CLUB 532-6920
EMERALD WYPAK YACHT SVS DIV 536-4836 5
EMERALD WYMOULLEY JAS L DR 534-8012+6
EMERALD XXXX 00
EMERALD WYPARKER DIESEL RPR 534-1547
EMERALD WYSTAR MARINE ENGINE 261-3510 4
EMERALD WYDWERKS SAIL ASSOC 534-1904 3
EMERALD WYCHRIS CRAFT PARTS 534-1550
EMERALD WYMARINE PARTS CO 534-1550
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EMERALD WYEMBARCADERO COVE 536-6760 2
EMERALD WYGAMERSTON LGRN LUMBR 834-6464
EMERALD WYGREEN LUTHER O 534-6644
EMERALD WYQUINNS LIGHTHOUSE 536-2050 3
EMERALD WYSAILBOATS INC 536-6760
EMERALD WYEMSCO PLYWOOD 536-4733
EMERALD 1970 XXXX 00
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EMERALD WYFORTY PLUS CALIF 534-4194 2
EMERALD WYBAYTRONICS CORP 261-0100 5
EMERALD WYCAROL FISHERMAN SVS 534-0795+6
EMERALD WYDODCK GAFE 261-1502 4
EMERALD WYEVANS RADIO DOCK 534-7300
EMERALD WYRUNNER L D 533-8314+6
EMERALD WYACME PALLET CO INC 261-1843 4
EMERALD WYSONOMA PACIFIC CO 261-1843+6
EMERALD WYPINEAPPLE SAILS 444-4321+6
EMERALD WYRICHARDS SVANHEECKER 444-4321+6
EMERALD *144 BUS 125 RES 118 NEW

EMERALD 94608 CA 103
EMERALD TRUCKING 893-8011 5
EMERALD STRUT 839-9690 4
EMERALD SUPERIOR STRUT & HNGR 839-9690 4
EMERALD LIQUID CARBONIC CRPA51-4100
EMERALD MUSTY RHODES MARINE 452-0400
EMERALD RHODES DUSTY MARINE 452-0400
EMERALD SMITH T LEON 452-2036+6
EMERALD WHITE STANLEY C 763-5127+6
EMERALD WILLIAMS JOHN C 465-4658 4
EMERALD WOPS ENTERPRISE 832-3350 3
EMERALD WOPSCO INC 892-5351 3
EMERALD WYEAH DOCK 893-6700
EMERALD XXXX 00
EMERALD WYARK THE 893-5900
EMERALD WYBARGE ROY L INC 451-7273 5
EMERALD WYJONSON JOSEPH CO 832-9420 4
EMERALD WYMAN INDUSTRIES INC 932-5420 4
EMERALD WYBARCLAY JACKS 261-3287 5
EMERALD XXXX 00
EMERALD WYANG PLANK 533-8321 2
EMERALD WYJOHNSON RALPH D 534-3400 5
EMERALD WYAPRIL SMALL MRS BOATS 534-6609+6
EMERALD WYDOLAN RICHARD 534-2628 5
EMERALD WYDODDS RODNEY W 261-5528+6
EMERALD WYDANKLAND MARINA 533-0107
EMERALD WYDANKLAND YACHT SALES 261-0600+6
EMERALD WYWHITMER BILL 535-2097+6
EMERALD WYBIG ZAG MARINE SERV 534-5891+6
EMERALD WYJOHNSON MARINE 533-9290
EMERALD WYSTEVES MARINE INC 534-6700 3
EMERALD WYCROWLEY LNCHEBOAT 839-4020
EMERALD WYPAC DRY DOCK REPAIR 839-4020 5
EMERALD WYATL EXPANSION JOINT 536-0935
EMERALD WYCAL HILLING CORP 532-8530+6
EMERALD WYDOMASCO BAKERS SPLY 532-8530 5
EMERALD WYSUTTON INTERNATIONAL 532-8126+6
EMERALD WYWHEELER SERVICE CO 532-3330+6
EMERALD WYPA 1 BOAT REPAIRING 532-9796
EMERALD WYHANI KAI HARBOR 261-6932 5
EMERALD WYTYE W K D INTERNATIONAL 261-6344+6
EMERALD WYSPACIFIC HROWD SALES 261-6342
EMERALD XXXX 00
EMERALD WYDASCO INC 532-4936 2
EMERALD WYPAK WELLS CNSTR PROSS 532-4936+5
EMERALD WYROCKMONT SALES CO 532-8327 2
EMERALD WYWALTERS ENGINEERING 533-5900+6
EMERALD WYREXFORD PRE PAKT 0536-8200 2
EMERALD WYSAFETY MEAT EGG DIV 536-8300
EMERALD WYWALTERS ENGINEERING 533-9511
EMERALD WYFEIGE ELVIN W 261-1212
EMERALD WYKOWPIRA 261-4702+6
EMERALD WYHULLER G 831-0000
EMERALD WYDANKLAND YACHT CLUB 532-6920
EMERALD WYPAK YACHT SVS DIV 536-4836 5
EMERALD WYMOULLEY JAS L DR 534-8012+6
EMERALD XXXX 00
EMERALD WYPARKER DIESEL RPR 534-1547
EMERALD WYSTAR MARINE ENGINE 261-3510 4
EMERALD WYDWERKS SAIL ASSOC 534-1904 3
EMERALD WYCHRIS CRAFT PARTS 534-1550
EMERALD WYMARINE PARTS CO 534-1550
EMERALD XXXX 00
EMERALD WYEMBARCADERO COVE 536-6760 2
EMERALD WYGAMERSTON LGRN LUMBR 834-6464
EMERALD WYGREEN LUTHER O 534-6644
EMERALD WYQUINNS LIGHTHOUSE 536-2050 3
EMERALD WYSAILBOATS INC 536-6760
EMERALD WYEMSCO PLYWOOD 536-4733
EMERALD 1970 XXXX 00
EMERALD 1989 XXXX 00
EMERALD WYFORTY PLUS CALIF 534-4194 2
EMERALD WYBAYTRONICS CORP 261-0100 5
EMERALD WYCAROL FISHERMAN SVS 534-0795+6
EMERALD WYDODCK GAFE 261-1502 4
EMERALD WYEVANS RADIO DOCK 534-7300
EMERALD WYRUNNER L D 533-8314+6
EMERALD WYACME PALLET CO INC 261-1843 4
EMERALD WYSONOMA PACIFIC CO 261-1843+6
EMERALD WYPINEAPPLE SAILS 444-4321+6
EMERALD WYRICHARDS SVANHEECKER 444-4321+6
EMERALD *144 BUS 125 RES 118 NEW

1 94579 SAN LEANDRO
INT JOHN R 351-1623
JND RICHARD 351-6088
IS RICHARD M 357-2661
IE ARTHUR JR 351-5171
JOS F 403-3482
IS LOUIS B JR 351-4300
L EDHUND 357-4358
RSDOFF WANS R 357-8771
NDES GLEN 357-9288
M MICHAEL J 351-5281+2
ETON V P 357-2243
WALTER 357-2757
AUSER A M 351-9083
R HAROLD 357-2026
JOHN 357-2856
JKA RYOJI 483-8483+2
G A 357-0250
LWN JENS 357-3578
DONALD J 357-4785
S GLENN A 357-4533
ON MARCEL 351-2081
IUEVA MARCIAL 357-4347+2
ICHARD 357-6019
CH JOHN J 357-4855
RD ROBT E 357-0356
DD AUGUST 357-0603
A KENNETH J 357-8831
ARTHUR J 357-0369
N THOS 357-8561
ALBERT 357-1523
TO CHARLOTTE 352-2985+2
E LESTER L 357-4758
FIL L 357-0196
M NRS 357-0605
SDN R J 351-2559
BENJ 357-0598
00
ION 357-1892
GLEEN 357-8210
ERRY 357-4785
MNY 357-1390
ALVIN 357-1586
EDW G 351-8420
R JOHN 352-1439
S 46 RES 4 NEW

50 LIVERMORE
ERLYN C 443-0434
ANES W 447-0746
YO J 443-5924
ROBERT T 443-1278
JAMES 447-7245+2
Y ALDON 443-3891
JOHN D 443-4850
ALEXANDER 447-4535
G 443-1230
DANIAL J 447-6761
JACK S 447-0442
IOS 443-0880
LEON W 447-1523
PHEN E 443-1904+2
RLYN B 443-6685+2
DRGE 447-8775
ARLETON W 443-2352
MARVIN 447-7407
RUSSELL W 447-8310
F 443-0694
00
M 443-3189
GHARD 447-3425
BT L 443-4624
JNE 443-4867
HARD 443-1625
RANK 443-3153+2
27 RES 4 NEW

610 OAKLAND
JL 452-4636
LD J 444-3689+2
ROY 835-5191
ENT 444-3023
H 832-4533
463-0276
444-5861
OHER MRS 485-2459+2
LOIS 465-5490+2
ILIP R MRS 444-8319
IE 832-8463
836-3411
Y 834-9409
Y 451-4705
893-0846
RED A 832-4398
J 832-3853
EN C 839-2319+2
EO BUSHS 465-7808+2
ERY SERV 832-5695
DIA 832-5695
00
H JR 836-2506
M KENNETH 451-7679
KENNETH A 451-7679
832-8676
UCE 763-0974+2
D 832-7476
832-0129
00
J E 832-7926
444-1556
JOHN MRS 444-4947
LNN 836-3792
LROLD A 893-1905
L L 832-5484
J G 451-1795
832-3271
I 836-3763
452-3378
IPIA J 451-4533+2

ELWOOD AV 94610 CONT..
VOLTHER ANN E 895-8309
WANNAMAKER H C 836-3382
462 BAKER W PERRY 832-8843
CHRISTIANS IN DEPTH 839-6346+2
TAYLOR ROBT Z 834-9712
465 CRANFORD F 836-6788+2
DAHLIN VIENNA 893-6253
KARSTEN ELIZABETH 893-3621
485 MCLEAN CHAS MRS 452-2405
495... APARTMENTS
8 BRIDGEMAN E R 893-1920
1 JOHNSON HENRY 836-1279
6 MCCANN W C 452-2503
5 ROBERTS MAXINE E 452-3498
SCHMID A M 452-2391
4 SIMPKINS MARY E 452-1424
VANKAT E L 763-0951+2
495... BUILDING
* 5 BUS 52 RES 10 NEW

ELWOOD CT 94520 CONCORD
3989 FRANGE M R CAPT USA 686-0357
3990 BANG LAWRENCE P 682-9463
3991 WARD PATRICK H 685-1121
3992 BREMER A LUCILLE 685-0448+2
3993 MORRISSEY VINCE C 686-2923
3994 SUNDBORG CARL V 686-1797
3995 MARTIN BILL 689-8586
3996 DELANEY E 682-5310+2
HOUDE JEFF 689-4730+2
3999 ANDERSON DAVID D 686-3472
ANDERSON KATHERINE 686-3472
* 0 BUS 11 RES 3 NEW

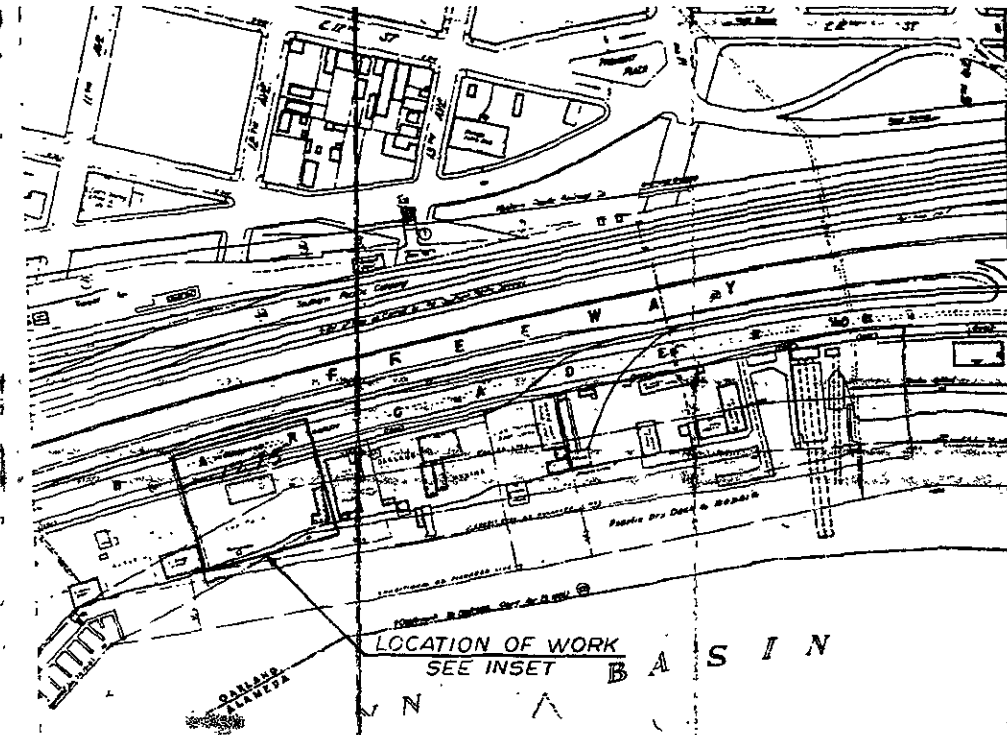
ELYSIAN PL 94605 OAKLAND
1 RODRIGUES WILFRED 6568-2767
2 SUR V F JR 568-1091
4 PETERSON DELMONT 562-0889
10 XXXX 00
* 0 BUS 4 RES 0 NEW

ELYSIAN FIELDS DR 94605 OAKLAND
21 KLOSS WM B 569-2443
22 FIDRE JACK F 638-8626
FIORIE JOHN JR 562-3354
23 CULLETON JOHN T 562-0927+2
35 NASH ROBT C 569-7128
40 CODNEY LEO B 562-5209
41 ROYCE L W C 569-7069
45 BLUER HERBERT A 636-0179
46 CROMIN R J 632-1551
51 XXXX 00
58 KOHL VICTOR 569-8167
64 RICH JAS C 638-4704
65 CLARK JOHN S JR 638-3797
70 FRAMSTED B G 638-0907
73 BARANY IRWIN 638-1711
74 FERRIGIA D L 638-5889
77 TOUSLEY ARTHUR H 632-7150
82 VALDOVINOS I F 568-5260
86 MCCALL ROBT F 568-5260
URCH LOUISE 568-7000
90 JOSEPH BENSON L 569-0413+2
94 SCHLOTTHAUER JAS J 569-5631
101 SCHWARTZ BURNHARDT 562-7912+2
102 BOYLE JOHN 635-1061+2
108 BROWN MINDY 569-1872
115 XXXX 00
125 DITNER JAS N 569-7776+2
130 MCARTHUR ARTHUR F 562-4338
133 SCONYERS RICHARD C 562-3700+2
145 CALIF REALTY 562-3700+2
*PROFSSNL ECONONC SVS 562-3700
*SEVERNS ENTERPRISES 562-3700
168 ZERBE MARY E 632-2548
ZERBE T P 632-2548
183 PATTY WM J 568-6674
190 JAYEDAS UVELORA 632-7642
198 GARCIA JOHN 569-0613
199 SCHLATER CLETUS E 562-4807
201 AITKEN JOHN M 569-7867
215 NYE C ERIK 562-5760
230 ANDRUS BOB 569-9034
240 LENCII GEO P 569-6849
248 MANUEL J WARREN 636-0296
251 OWEN DAVID A 569-4070
259 MDDRE T A PAPPY 568-4478
265 FORDE A 568-8140
FORDE JACK H 562-3324
270 JOHNSON LEROY E 632-3974
271 LEVESQUE ARTHUR J 569-2230
279 HANNETTE WM A 562-6210
280 MAGNUSON RICHARD 632-0428
290 DEANER RICHARD M 569-7287
293 LOWELL FRED JR 562-9640
298 HILL G F 632-6756
310 STEWART J W SYMON 562-8044
311 EISELMAN G C 638-7808
320 CORREIA JOHN W 568-7284
321 BEYDA LOUIS 562-1182
330 SCARPA LOUIS F 562-5054
331 FARLEY RAYMOND H 636-0346
339 LEHAY THOS H 562-8817
340 BURRIS RAY A 569-1388
347 JACOBS E J 569-8272
350 SOLARI MARIO 562-2691
355 XXXX 00
380 MCCULLOUGH F L 569-4110
383 GILSON ALFRED P 632-3132+2
380 CASEBOLT RALPH T 568-7552
390 PAGANELLI ANNE 562-4301+2
PAGANELLI RANSO J 632-6197
398 BRUNO VITO 562-1233
400 BRUNER LELAND W 636-0400
448 WOLFE I

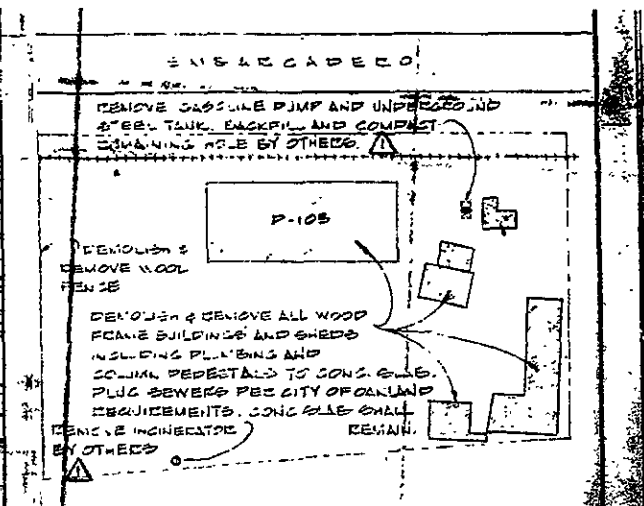
ELYSIAN FIELDS DR 94605 CONT..
WOLFE L 569-5900
500 MARTIN C W 569-1412
510 LEE DAVID L 568-0914
520 SCOTT WM J 632-6411
530 GAVAZZA MARIO 562-8930
540 LESSA GED SR 562-9034
550 ROTNER DAVID L DR 562-0945
ROTNER GLEN 562-0945
560 BOLTWOOD C M CDR 562-3086
601 GRAYDON BETTY J 638-7941
610 MCNEELY WARREN 638-0951
* 3 BUS 81 RES 8 NEW

EMBARCADERO 94606 OAKLAND
27 MARINE LAWYERS CO 536-6117+2
321 WERRITT SHIP REPAIR 893-7020
351 FLASHER CO THE 636-0861
457 HARBOR ENGINEERING 893-0225
461 STUDIO THIRTY THREE 832-4305
466 HAKES R E 452-3511+2
*HAKES R ORGAN REPR 452-3510+2
*ORGAN WORKSHOP THE 452-3510+2
468 BOZEMAN R DDT 835-4291+2
469 PACIFIC CST FLOORING 893-0807+2
499... BUILDING
*BARNESS JONES INC 832-5626
*CHANNEL MARINE ENG 452-4249
*DISTELHURST R H 836-0919+2
*ERNST WATER COLUMN 832-5626
*FRAZIER ARTHUR R 452-4269
*GENERAL TRNSPRT EDPT 63-2033+2
*HICKMAN ENGINEERING 832-5626
*HILL JAMES T 893-8635+2
*HAYAS GILBERT A 444-1426+2
*SILVEIRA J W CO 834-9210
*SILVEIRA J W DVL PNT 834-9811
*SILVEIRA J M INVSTMS 834-9814
*SKYLINE MOTORS 834-9813
*STROMQUIST EBEN 893-8869
499... BUILDING
555 GOULD WALLY CO 893-5859
625 SEABREEZE YCHT CNTR 832-3951
YOUNG GENE D F 465-9899+2
639 C&T TRUCKING 452-1200
845 XXXX 00
901 LIQUID CARBONIC CRP 451-4100
1000 DUSTY RHODES MARINE 452-0400
*RHODES DUSTY MARINE 452-0400
1103 STEAK DOCK 893-6700
1107 ALBATROSS YACHT SLS 893-6431
1111 ARK THE 893-5900
1115 BURGE ROY L 451-7273
1155 JOHNSON JOSEPH ELEC 832-5420+2
*HAR INDUSTRIES INC 832-5420
*HIRRO CRAFT BOATS 832-5420
*SKIPPER SUPPLY 832-5420
1285 EDWARDS HEAT TRNG 261-5230
1301 GANG PLANK 533-8321+2
1307 WEBBERGO 536-3107+2
1311 INTERNATL MARINE SVS 533-8107+2
MANSEAU JEAN A 532-2252
*OAKLAND MARINA 533-0107
*SMITH CLARENCE 533-6502+2
1313 CATALINA MARINE 533-9290
*WESTERN MARINE ELCTS 533-1147
1363 PETERSON DICK CO 536-6700
1441 CROWLEY LAUNCH TUG 534-1303
*CROWLEY LNCHEBOAT 839-4020+2
*PACIFIC DRY DCKRPHS 534-1303
1601 NATL EXPANSN JOINT 536-0935
1755 CALO PET FOODS DIV 534-8788
*VICTORY DOG FOOD CO 534-8788
1759A 1 BOAT REPAIRING 532-9796
*RAY MARINE ENGIN SVS 261-6532+2
*LANI KAI HARBOR 261-6532+2
1817 PACIFIC HROND SALES 261-6342
1820 STAR WIRE SCRN DIV 534-7336
1830 DASCO INC 532-4936+2
*DAVIS SERVICE CO 532-4936+2
*ROCKMONT SALES CO 532-8327+2
*SUTTON INTERNATIONAL 532-5182+2
1831 HCBRODMECECCCHINI 536-8920
1840 WREXFORD PRE PAKT CO 536-8300+2
*SAFEMAY DRUG CENTER 536-8300
*SAFEMAY NON FOODS 536-8300
*SAFEMAY MEAT EGGS DIV 536-8300
*SAFEMAY PRODUCE DIV 536-8300
1841 WALTERS ENGINEERING 533-9511
851... BUILDING
AMARAL ANTHONY L 532-2664
BUSICK WM W 534-6800+2
FEIGE ELVIN W 261-1212
*OAKLAND YACHT CLUB 533-6920
STORM MALCOM R 536-0947
1851... BUILDING
1931 PARKER DIESEL RPR 534-1547
*STARMARINE 261-3510+2
1935 XXXX 00
1937 CHRIS CRAFT PARTS 534-1550
*MARINE PARTS CO 534-1550
1950 CALIF FOUNDRY 534-5040
*HEMPRE FOUNDRY CO 261-0171
891... BUILDING
EMBARCADERO COVE 536-6740+2
*GAMERSTON CRRN LUMBR 534-6444
*GREEN LUTHER O 534-4464
*NEUSTADT ROBT G 536-9569
*PARRY G PATRN WRKS 534-3066+2
*SB I YACHT SALES 534-1904+2
*SAILBOATS INC 536-6760
*VICTORIA STN ASYRNTS 532-1430+2
1951... BUILDING
1960 WENSICO PLYWOOD 536-4733
1989 XXXX 00
1990... BUILDING
*FORTY PLUS CALIF 534-4154+2
*PLASTICS DISTR INC 534-2815
*PYRO FOAM CORP 533-7244
890... BUILDING
1995 DOCK REFRIGERATN SVS 261-2160+2
*EVANS RADIO DOCK 534-7300
*WILLIES MARINE STR 532-0404

Drawing BB-3132



LOCATION OF WORK
SEE INSET



REMOVE GASOLINE PUMP AND UNDESIRABLE
STEEL TANK, BACKFILL AND COMPACT
REMAINING AREA BY OTHERS.

DEMOLISH &
REMOVE WOOD
FENCE

DEMOLISH & REMOVE ALL WOOD
FRAME BUILDINGS AND SHEDS
INCLUDING PLUMBING AND
COLUMN PEDESTALS TO CONC. SLAB.
PLUG SEWERS PER CITY OF OAKLAND
REQUIREMENTS. CONC. SLAB SHALL
REMAIN.

REMOVE INCREASER
BY OTHERS

INSET
SCALE: 1/2" = 1'-0"

NOTES:

1. Contractor shall obtain all necessary permits from the Oakland Fire Marshal before commencing work.
2. Port will obtain permits for building demolition and tank removal.
3. Contractor shall, prior to starting work, confirm that all area utilities have been cut off.
4. A detailed plan of Building P-105 is available for review at the Port Engineering office.
5. At the conclusion of the work, Contractor shall remove all debris and shall leave premises in a neat and orderly condition.

PORT OF OAKLAND
Approved as to conformance with Port Plans
Subject to City Eng. Permit

Paul J. Brennan
Civil Engineer

REFERENCE
PLANS
FIELD BOOKS

"PORT OF OAKLAND DATUM"
IS 3.20' BELOW MEAN SEA LEVEL

NO.	REVISIONS	DATE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

PORT OF OAKLAND
OAKLAND, CALIFORNIA
OAKLAND INLAND HARBOUR
DEMOLITION OF BUILDING
AND ADJACENT AREAS

APPENDIX C

Tables and Figures from Baseline Environmental Consulting's *Soil and Groundwater Investigation and Workplan (August 2001)*

This appendix contains the following tables and figures from the Baseline Environmental Consulting (2001) report:

Figure 2	Boring Locations
Table 1	Summary of Soil and Groundwater Sample Compositing and Analyses
Table 2	Total Metals, Petroleum, BTEX, PCBs, and SVOCs in Soil, 0-2 Foot Composites
Table 3	Volatile Organics in Soil, 0-2 Feet bgs
Table 4	Total Lead in Soil, 0-2 Feet
Table 5	Pesticides in Soil, 0-2 Feet
Table 6	Volatile Organics in Soil, 4.5-5.0 Feet
Table 7	SVOCs and PCBs in Soil, 4.5-5.0 Feet
Table 8	Total Lead in Soil, 4.5 to 5.0 Feet
Table 9	VOCs, SVOCs, Petroleum, and BTEX, Soil
Table 10	Analytical Results, Grab Groundwater

SOIL AND GROUNDWATER INVESTIGATION AND WORKPLAN

GRAY & REYNOLDS DEVELOPMENT PROJECT

EMBARCADERO COVE
Oakland, California

AUGUST 2001

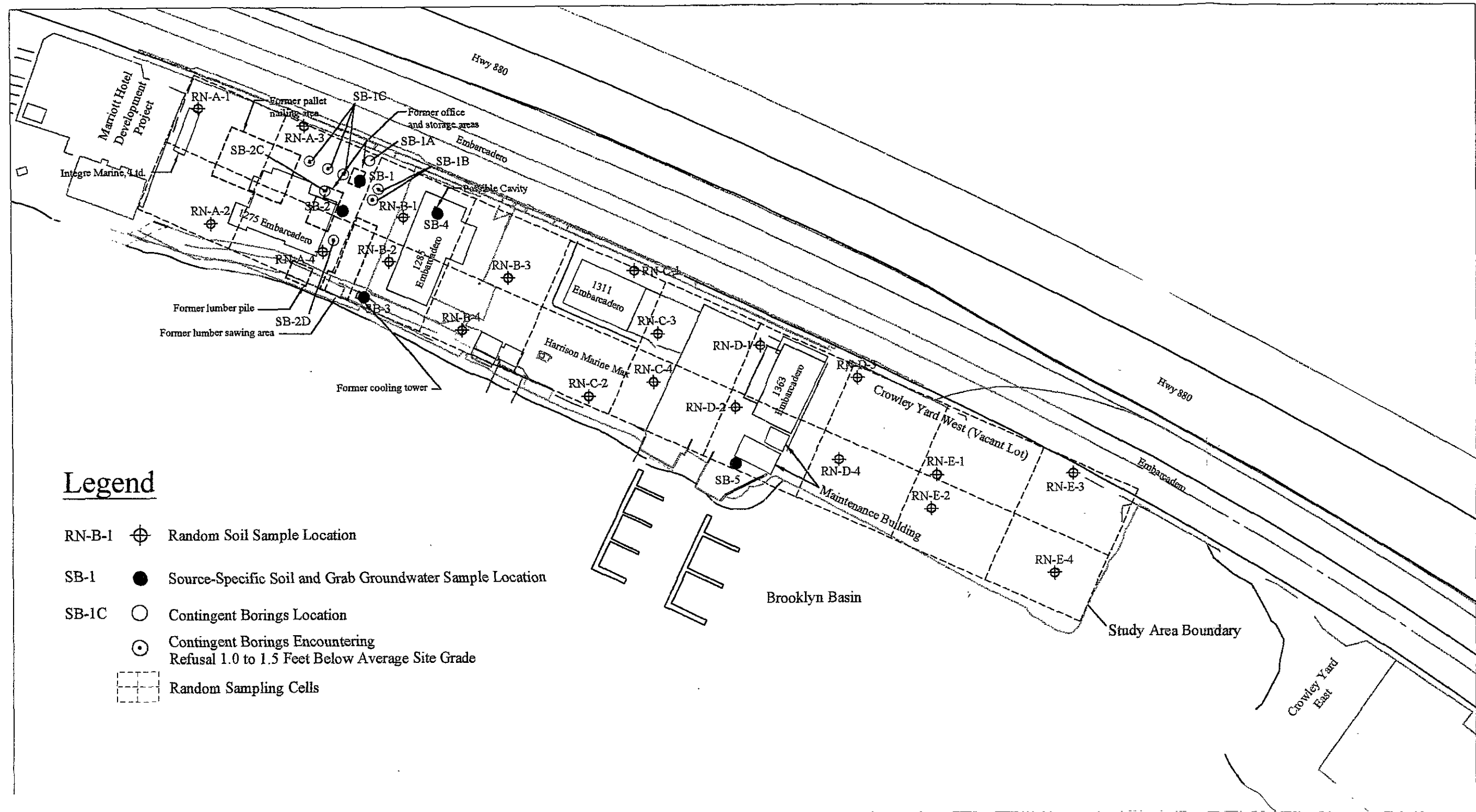
For:
Port of Oakland
Oakland, California

93879-30

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

BORING LOCATIONS

Figure 2



Legend

- RN-B-1 ⊕ Random Soil Sample Location
- SB-1 ● Source-Specific Soil and Grab Groundwater Sample Location
- SB-1C ○ Contingent Borings Location
- ⊙ Contingent Borings Encountering Refusal 1.0 to 1.5 Feet Below Average Site Grade
- ⊞ Random Sampling Cells

Gray and Reynolds Development Project
Oakland, California

Source Henshaw Associates 2001 and BASELINE

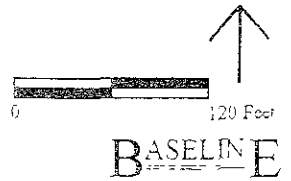


TABLE I
SUMMARY OF SOIL AND GROUNDWATER SAMPLE COMPOSITING AND ANALYSES
Gray Reynolds Development Project, Oakland, California
May 2001

Sampling Objective	Station ID	Sample Interval (feet)	Analysis											
			VOCs	SVOCs	TPH-d & TPH-g w/BTEX	111e 22 Metals	Hexavalent Chromium	Lead	PCBs	Pesticides	Tables			
Random sampling for determining disposal options and risk to construction workers	Comp A	RN-A-1	1.5 - 2	X						X			2, 3, 4, and 5	
		RN-A-2	1 - 1.5	X						X				
		RN-A-3	0.5 - 1	X	X	X	X			X				
		RN-A-4	1 - 1.5	X						X				
	Comp B	RN-B-1	1 - 1.5	X						X				
		RN-B-2	1 - 1.5	X	X	X	X			X				
		RN-B-3	1.5 - 2	X						X				
		RN-B-4	0 - 0.5	X						X				
	Comp C	RN-C-1	1 - 1.5	X						X				
		RN-C-2	0.25 - 0.75	X	X	X	X			X				
		RN-C-3	1 - 1.5	X						X				
		RN-C-4	1 - 1.5	X						X				
	Comp D	RN-D-1	0.5 - 1	X						X				
		RN-D-2	1 - 1.5	X	X	X	X			X				
		RN-D-3	1.5 - 2	X						X				
		RN-D-4	0.5 - 1	X						X				
Comp E	RN-E-1	0.5 - 1	X						X					
	RN-E-2	1.5 - 2	X	X	X	X			X					
	RN-E-3	0 - 0.5	X						X					
	RN-E-4	0.5 - 1	X						X					
Random sampling for determining disposal option and risk to construction workers	Comp P1	RN-A-1	1.5 - 2										6, 7, and 8	
		RN-A-2	1 - 1.5											
		RN-A-3	0.5 - 1											
		RN-A-4	1 - 1.5											
		RN-B-1	1 - 1.5									X		
		RN-B-2	1 - 1.5											
		RN-B-3	1.5 - 2											
		RN-B-4	0 - 0.5											
	Comp P2	RN-C-1	1 - 1.5											
		RN-C-2	0.25 - 0.75											
		RN-C-3	1 - 1.5											
		RN-C-4	1 - 1.5											
		RN-D-1	0.5 - 1											
		RN-D-2	1 - 1.5											
		RN-D-3	1.5 - 2									X		
		RN-D-4	0.5 - 1											
Random sampling for determining residual risk after excavation	Comp F	RN-A-1	4.5 - 5	X						X			9 and 10	
		RN-A-2	4.5 - 5		X					X				
		RN-A-3	4.5 - 5	X						X				
		RN-A-4	4.5 - 5							X				
	Comp G	RN-B-1	4.5 - 5	X						X				
		RN-B-2	4.5 - 5		X					X				
		RN-B-3	4.5 - 5	X						X				
		RN-B-4	4.5 - 5							X				
	Comp H	RN-C-1	4.5 - 5	X						X				
		RN-C-2	4.5 - 5		X					X				
		RN-C-3	4.5 - 5	X						X				
		RN-C-4	4.5 - 5							X				
	Comp I	RN-D-1	4.5 - 5	X						X				
		RN-D-2	4.5 - 5		X					X				
		RN-D-3	4.5 - 5	X						X				
		RN-D-4	4.5 - 5							X				
Comp J	RN-E-1	4.5 - 5	X						X					
	RN-E-2	4.5 - 5		X					X					
	RN-E-3	4.5 - 5	X						X					
	RN-E-4	4.5 - 5							X					
Source-specific sampling to investigate potential presence of constituents based on historical site information	SB-1	0.75 - 1.25			X							9 and 10		
		3 - 3.5		X	X									
		grab groundwater		X	X									
	SB-2	1 - 1.5			X									
		4 - 4.5			X									
	grab groundwater		X	X										
	SB-3	0.5 - 1							X					
		3.5 - 4							X					
	grab groundwater		X						X					
	SB-4	1 - 1.5	X	X							X			
4.5 - 5		X	X							X				
grab groundwater		X	X							X				
SB-5	0.5 - 1	X	X											
	4 - 4.5	X	X											
	grab groundwater	X	X											
Contingent sampling based on field observations	SB-1A	0 - 0.5			X									
		5 - 5.5		X	X									
		grab groundwater		X	X									
	SB-1B	1 - 1.5			X									
	SB-2C	0 - 0.5			X									
		3 - 3.5			X									

Notes:
VOCs - Volatile organic compounds
SVOCs - Semivolatile organic compounds
TPH-d - Total petroleum hydrocarbons as diesel

TPH-g w/BTEX - Total petroleum hydrocarbons as gasoline with benzene, toluene, ethylbenzene, and total xylenes
PCBs Polychlorinated biphenols

TABLE 2
TOTAL METALS, PETROLEUM, BTEX, PCBs, AND SVOCs IN SOIL, 0-2 FOOT COMPOSITES
Disposal and Construction Worker Health and Safety
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Compound	Sample ID		COMP A		COMP B		COMP C		COMP D		COMP E	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Metals¹												
Antimony	ND	2.9	ND	2.8	ND	3	ND	2.9	ND	2.9	ND	2.9
Arsenic	10	0.24	4.3	0.23	6.1	0.25	3.8	0.24	9.2	0.24	9.2	0.24
Barium	41	0.48	65	0.46	150	0.5	110	0.48	2200	9.5	2200	9.5
Beryllium	0.21	0.095	0.26	0.093	0.29	0.099	0.39	0.096	0.45	0.095	0.45	0.095
Cadmium	1	0.24	2.1	0.23	1.7	0.25	2.2	0.24	3.8	0.24	3.8	0.24
Chromium	22	0.48	16	0.46	23	0.5	21	0.48	39	0.48	39	0.48
Cobalt	5.3	0.95	6.4	0.93	6.4	0.99	8	0.96	7.6	0.95	7.6	0.95
Copper	17	0.48	75	0.46	26	0.5	24	0.48	450	0.48	450	0.48
Lead	24	0.14	32	0.14	31	0.15	29	0.14	1500	0.14	1500	0.14
Mercury	0.14	0.019	0.083	0.02	0.3	0.018	0.46	0.019	0.64	0.019	0.64	0.019
Molybdenum	1.2	0.95	ND	0.93	ND	0.99	ND	0.96	3	0.95	3	0.95
Nickel	25	0.95	27	0.93	36	0.99	41	0.96	69	0.95	69	0.95
Selenium	0.36	0.24	ND	0.23	ND	0.25	ND	0.24	ND	0.24	ND	0.24
Silver	ND	0.24	ND	0.23	ND	0.25	ND	0.24	0.25	0.24	0.25	0.24
Thallium	ND	0.24	ND	0.23	0.39	0.25	0.77	0.24	0.39	0.24	0.39	0.24
Vanadium	20	0.48	25	0.46	26	0.5	34	0.48	30	0.48	30	0.48
Zinc	40	0.95	61	0.93	69	0.99	92	0.96	1600	19	1600	19
Organic Compounds												
TPH-g ²	ND	1.1	ND	1	ND	0.94	19	0.98	ND	1.1	ND	1.1
TPH-d ²	20	1	76	2	74	2	540	2	98	5	98	5
Total BTEX ⁴	<0.0053	0.0053	0.0054	0.0051	0.0052	0.0047	0.037	0.0049	<0.0055	0.0055	<0.0055	0.0055
Aroclor-1254 ³	0.019	0.012	ND	0.012	ND	0.12	ND	0.012	ND	0.12	ND	0.12
Aroclor-1260 ³	0.022	0.012	ND	0.012	ND	0.12	0.034	0.012	ND	0.12	ND	0.12
bis(2-ethylhexyl)phthalate ⁵	0.49	0.33	ND	0.33	ND	3.3	ND	1.7	ND	3.3	ND	3.3

Notes: RL = Laboratory reporting limit.

TPH-g = Total petroleum hydrocarbons as gasoline. TPH-d = Total petroleum hydrocarbons as diesel. BTEX = Benzene, toluene, ethylbenzene, and xylenes.

Table 1 identifies the compositing scheme. See Figure 2 for sampling locations. Refer to Appendix D for laboratory report.

¹ All analyses except mercury performed using EPA Method 6010B; mercury analysis performed using EPA Method 7470.

² Analyzed by EPA Method 8015M with silica gel cleanup. Gasoline range: C7-C12; diesel range: C10-C24.

³ Analyzed by EPA Method 8082. Only compounds identified above laboratory reporting limits are listed.

⁴ Analyzed by EPA Method 8021B. For individual compounds, refer to laboratory reports in Appendix D.

⁵ Analyzed by EPA Method 8270C. Only compounds identified above laboratory reporting limits are listed.

TABLE 3
VOLATILE ORGANICS IN SOIL, 0-2 FEET BGS
Disposal and Construction Worker Health and Safety
Gray Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Sample ID Compound	RN-A1;1.5-2		RN-A2;1-1.5		RN-A3;0.5-1		RN-A4;1.0-1.5		RN-B1;1-1.5		RN-B2;1-1.5		RN-B3;1.5-2		RN-B4;0-0.5		RN-C1;1-1.5		RN-C2;0.25-0.75	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Acetone	ND	0.019	ND	0.02	ND	0.02	ND	0.019	ND	0.02	ND	0.019	0.043	0.019	ND	0.019	ND	0.019	ND	0.02
Ethylbenzene	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	0.0048	0.0047	ND	0.005
m,p-xylenes	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	0.021	0.0047	ND	0.005
o-xylene	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	0.0082	0.0047	ND	0.005
MTBE	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	ND	0.0047	ND	0.005
n-butylbenzene	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	ND	0.0047	ND	0.005
sec-butylbenzene	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	ND	0.0047	ND	0.005
Toluene	ND	0.0046	ND	0.005	ND	0.005	ND	0.0046	ND	0.0049	ND	0.0047	ND	0.0046	ND	0.0047	0.016	0.0047	ND	0.005

TABLE 3
VOLATILE ORGANICS IN SOIL, 0-2 FEET BGS
Disposal and Construction Worker Health and Safety
Gray Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Sample ID Compound	RN-C3;1-1.5		RN-C4;1-1.5		RN-D1;0.5-1		RN-D2;1-1.5		RN-D3;1.5-2		RN-D4;0.5-1		RN-E1;0.5-1		RN-E2;1.5-2		RN-E3;0-0.5		RN-E4;0.5-1	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Acetone	ND	0.02	0.048	0.02	ND	0.02	0.047	0.019	0.066	0.04	ND	0.02	ND	0.019	ND	0.019	ND	0.019	ND	0.019
Ethylbenzene	ND	0.0051	ND	0.0051	ND	0.0051	ND	0.0047	ND	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047
m,p-xylenes	ND	0.0051	ND	0.0051	0.0094	0.0051	ND	0.0047	ND	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047
o-xylene	ND	0.0051	ND	0.0051	ND	0.0051	ND	0.0047	ND	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047
MTBE	ND	0.0051	ND	0.0051	ND	0.0051	0.043	0.0047	ND	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047
n-butylbenzene	ND	0.0051	ND	0.0051	ND	0.0051	ND	0.0047	0.017	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047
sec-butylbenzene	ND	0.0051	ND	0.0051	ND	0.0051	ND	0.0047	0.011	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047
Toluene	ND	0.0051	ND	0.0051	ND	0.0051	ND	0.0047	ND	0.01	ND	0.0049	ND	0.0047	ND	0.0048	ND	0.0047	ND	0.0047

Notes:

All analyses performed using EPA Method 8260B. Only compounds identified above laboratory reporting limits are listed.

RL = Laboratory reporting limit.

Refer to Appendix D for laboratory reports.

Figure 2 shows sampling locations.

TABLE 4
TOTAL LEAD IN SOIL, 0-2 FEET
Disposal and Construction Worker Health and Safety
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Sample ID	Result	RL
RN-A1;1.5-2	33	0.13
RN-A2;1-1.5	22	0.13
RN-A3;0.5-1	38	0.13
RN-A4;1.0-1.5	14	0.13
RN-B1;1-1.5	7.4	0.13
RN-B2;1-1.5	8.1	0.13
RN-B3;1.5-2	39	0.13
RN-B4;0-0.5	5.9	0.12
RN-C1;1-1.5	29	0.13
RN-C2;0.25-0.75	49	0.14
RN-C3;1-1.5	25	0.14
RN-C4;1-1.5	35	0.12
RN-D1;0.5-1	65	0.13
RN-D2;1-1.5	6.4	0.13
RN-D3;1.5-2	8.1	0.14
RN-D4;0.5-1	12	0.13
RN-E1;0.5-1	6.7	0.12
RN-E2;1.5-2	4.9	0.13
RN-E3;0-0.5	110	0.12
RN-E4;0.5-1	6.9	0.13
Mean	26	
90% UCL	34	

Notes:

All total lead analyses performed by EPA Method 6010B.

RL = Laboratory reporting limit.

Refer to Figure 2 for sampling locations.

Laboratory reports are included in Appendix D.

90% UCL = 90% upper confidence limit of the mean, one-tailed.

TABLE 5
PESTICIDES IN SOIL, 0-2 FEET
Disposal and Construction Worker Health and Safety
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Compound	Sample ID	COMP P1		COMP P2	
		Result	RL	Result	RL
4,4'-DDD		ND	0.06	ND	0.06
4,4'-DDE		ND	0.06	ND	0.06
4,4'-DDT		ND	0.06	ND	0.06
Aldrin		ND	0.03	ND	0.03
alpha-BHC		ND	0.03	ND	0.03
alpha-Chlordane		ND	0.03	ND	0.03
beta-BHC		ND	0.03	ND	0.03
delta-BHC		ND	0.03	ND	0.03
Dieldrin		ND	0.06	ND	0.06
Endosulfan I		ND	0.03	ND	0.03
Endosulfan II		ND	0.06	ND	0.06
Endosulfan sulfate		ND	0.06	ND	0.06
Endrin		ND	0.06	ND	0.06
Endrin aldehyde		ND	0.06	ND	0.06
gamma-BHC		ND	0.03	ND	0.03
gamma-Chlordane		ND	0.03	ND	0.03
Heptachlor		ND	0.03	ND	0.03
Heptachlor epoxide A		ND	0.03	ND	0.03
Heptachlor epoxide B		ND	0.03	ND	0.03
Methoxychlor		ND	0.3	ND	0.3
Toxaphene		ND	0.6	ND	0.6

Notes:

Analyses performed using EPA Method 8081A.

RL = Laboratory reporting limit.

Refer to Table 1 for sample compositing scheme.

Figure 2 shows sampling locations.

Laboratory reports are included in Appendix D.

TABLE 6
VOLATILE ORGANICS IN SOIL, 4.5-5.0 FEET
Residual Soil Quality
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Sample ID \ Compound	RN-A1;4.5-5		RN-A3;4.5-5		RN-B1;4.5-5		RN-B3;4.5-5		RN-C1;4.5-5	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
2-butanone	ND	0.0096	ND	0.0096	ND	0.01	ND	0.0096	ND	0.0094
Acetone	0.019	0.019	ND	0.019	ND	0.02	0.028	0.019	ND	0.019

Sample ID \ Compound	RN-C3;4.5-5		RN-D1;4.5-5		RN-D3;4.5-5		RN-E1;4.5-5		RN-E3-4.5-5	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
2-butanone	ND	0.01	0.015	0.01	ND	0.0093	ND	0.0098	ND	0.01
Acetone	ND	0.02	0.08	0.02	0.031	0.019	ND	0.02	ND	0.02

Notes:

All analyses performed using EPA Method 8260B. Only compounds identified above laboratory reporting limit are listed.
RL = Laboratory reporting limit. Only compounds reported above the laboratory reporting limit are listed.
Refer to Appendix D for laboratory reports.
Figure 2 shows sampling locations.

TABLE 7
SVOCs and PCBs in Soil, 4.5-5.0 Feet
Residual Soil Quality
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Compound \ Sample ID	COMP F		COMP G		COMP H		COMP I		COMP J	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
SVOCs										
Benzo(b)fluoranthene	0.37	0.33	ND	6.6	ND	0.33	ND	0.33	ND	0.33
bis(2-ethylhexyl)phthalate	0.96	0.33	13	6.6	0.42	0.33	0.69	0.33	0.86	0.33
Fluoranthene	ND	0.33	ND	6.6	ND	0.33	ND	0.33	1	0.33
Pyrene	ND	0.33	ND	6.6	ND	0.33	ND	0.33	1.1	0.33
PCBs										
Aroclor 1260	ND	<0.12	ND	<0.12	ND	<0.012	0.028	<0.012	ND	<0.012

Notes:

Analyses performed using EPA Method 8270C for SVOCs and EPA Method 8082 for PCBs. Only compounds identified above laboratory reporting limit are listed.

RL = Laboratory reporting limit.

Sample compositing scheme is shown in Table 1.

Laboratory reports are included in Appendix D.

Figure 2 shows for sampling locations.

SVOCs = Semi-volatile organic compounds.

PCBs = Polychlorinated biphenyls.

TABLE 8
TOTAL LEAD IN SOIL, 4.5 TO 5.0 FEET
Residual Soil Quality
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Sample ID	Result	RL
RN-A1;4.5-5	41	0.15
RN-A2;4.5-5	31	0.15
RN-A3;4.5-5	670	0.15
RN-A4;4.5-5	26	0.14
RN-B1;4.5-5	12	0.14
RN-B2;4.25-4.75	4.3	0.14
RN-B3;4.5-5	830	0.15
RN-B4;4-4.5	90	0.12
RN-C1;4.5-5	8.5	0.13
RN-C2;4.5-5	120	0.14
RN-C3;4.5-5	3.5	0.14
RN-C4;4.5-5	49	0.14
RN-D1;4.5-5	11	0.14
RN-D2;4.5-5	27	0.15
RN-D3;4.5-5	40	0.14
RN-D4;4.5-5	28	0.15
RN-E1;4.5-5	35	0.14
RN-E2;4.5-5	6.1	0.15
RN-E3-4.5-5	91	0.15
RN-E4;4.5-5	42	0.13
Mean	162	
90% UCL	367	

Notes:

All total lead analyses performed using EPA Method 6010B.
 RL = Laboratory reporting limit.
 Refer to Figure 2 for sampling locations.
 Laboratory reports are included in Appendix D.
 90% UCL = 90% upper confidence limit of the mean, one-tailed.

TABLE 9
VOCs, SVOCs, PETROLEUM, AND BTEX, SOIL
Source Specific
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Compound	Sample ID	SB-1;0.75-1.25		SB-1;3-3.5		SB-1A;0-0.5		SB-1A;5-5.5		SB-1B;1-1.5		SB-2;1-1.5		SB-2;4-4.5	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
VOCs															
2-butanone		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone		--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs															
2-methylnaphthalene		--	--	ND	0.33	--	--	2.2	0.33	--	--	--	--	--	--
bis(2-ethylhexyl)phthalate		--	--	0.61	0.33	--	--	ND	0.33	--	--	--	--	--	--
Naphthalene		--	--	ND	0.33	--	--	2.2	0.33	--	--	--	--	--	--
Petroleum															
TPH-g (C7-C12)		ND	1.1	ND	1	ND	1.1	500	25	ND	1	ND	0.98	ND	1.1
TPH-d (C10-C24)		62	1	13 ^{1,2}	1	240 ^{1,2}	5	40 ^{1,2,3}	1	60 ^{1,2}	1	43 ^{1,2}	1	43 ^{1,2}	1
Total BTEX		ND	0.0056	0.013	0.0052	ND	0.0054	22.2	0.13	0.0074	0.005	ND	0.0049	ND	0.0054
PCBs		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexavalent chromium		--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 9
VOCs, SVOCs, PETROLEUM, AND BTEX, SOIL
Source Specific.
Gray & Reynolds Development Project, Oakland, California
May 2001
(mg/kg)

Sample ID Compound	SB-2C;0-0.5		SB-2C;3-3.5		SB-3;0-0.5		SB-3;3.5-4		SB-4;1-1.5		SB-4;4.5-5		SB-5;0-0.5		SB-5;4-4.5	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
VOCs	--	--	--	--	--	--	--	--	ND	0.0096	0.016	0.0094	ND	0.01	ND	0.0098
2-butanone	--	--	--	--	--	--	--	--	ND	0.019	0.09	0.019	ND	0.02	ND	0.02
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs	--	--	--	--	--	--	--	--	ND	1.7	ND	0.33	ND	1.7	ND	0.33
2-methylnaphthalene	--	--	--	--	--	--	--	--	ND	1.7	ND	0.33	ND	1.7	ND	0.33
bis(2-ethylhexyl)phthalate	--	--	--	--	--	--	--	--	ND	1.7	ND	0.33	ND	1.7	ND	0.33
Naphthalene	--	--	--	--	--	--	--	--	ND	1.7	ND	0.33	ND	1.7	ND	0.33
Petroleum																
TPH-g (C7-C12)	ND	0.96	ND	1	--	--	--	--	--	--	--	--	--	--	--	--
TPH-d (C10-C24)	25 ^{1,2}	1	37 ^{1,2}	1	--	--	--	--	--	--	--	--	--	--	--	--
Total BTEX	ND	0.0048	ND	0.0052	--	--	--	--	--	--	--	--	--	--	--	--
PCBs	--	--	--	--	--	--	--	--	ND	0.012	ND	0.012	--	--	--	--
Hexavalent chromium	--	--	--	--	ND	0.05	ND	0.05	--	--	--	--	--	--	--	--

Notes:

VOC analyses performed by EPA Method 8260B; SVOCs by EPA Method 8270C; BTEX by EPA Method 8021; TPH by EPA Method 8015M with silica gel cleanup; PCBs by EPA Method 8082, Hexavalent chromium by EPA Method 7196.

Only those analytes identified above laboratory reporting limits are listed.

RL = Laboratory reporting limit.

Laboratory reports are included in Appendix D.

See Figure 2 for sampling locations.

VOCs = Volatile organic compounds.

SVOCs = Semi-volatile organic compounds.

TPH-g = Total petroleum hydrocarbons as gasoline.

TPH-d = Total petroleum hydrocarbons as diesel.

BTEX = Benzene, toluene, ethylbenzene, and xylenes.

PCBs = Polychlorinated biphenyls.

-- = Not analyzed.

¹ Petroleum hydrocarbon does not match laboratory standard.

² Lighter hydrocarbons contributed to the quantification.

³ Heavier hydrocarbons contributed to the quantification.

TABLE 10
ANALYTICAL RESULTS, GRAB GROUNDWATER
Gray & Reynolds Development Project
Oakland, California
May 2001
(µg/L)

Compound	Sample ID		SB-1A		SB-2		SB-3 ¹		SB-4 ²		SB-5	
	SB-1 Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
TPH and BTEX												
TPH-g (C7-C12)	80,000	5,000	25,000	500	ND	50	--	--	--	--	--	--
TPH-d (C10-C24)	2,900 ^{3,4}	250	800 ^{3,4}	50	180 ^{3,5}	50	--	--	--	--	--	--
Benzene	8,600	50	260	5	ND	0.5	--	--	--	--	--	--
Ethylbenzene	3,900	50	760	5	ND	0.5	--	--	--	--	--	--
m,p-xylenes	11,000	50	1,900	5	ND	0.5	--	--	--	--	--	--
o-xylene	3,600	50	390	5	ND	0.5	--	--	--	--	--	--
Toluene	8,200	50	170	5	ND	0.5	--	--	--	--	--	--
SVOCs												
2-methylnaphthalene	260	94	130	9.6	ND	9.7	--	--	ND	9.6	ND	9.7
Benzyl alcohol	ND	94	ND	9.6	ND	9.7	--	--	27	9.6	ND	9.7
Naphthalene	610	94	170	9.6	ND	9.7	--	--	ND	9.6	ND	9.7
VOCs												
1,1-dichloroethene	--	--	--	--	--	--	--	--	8.9	5	ND	5
cis-1,2-dichloroethene	--	--	--	--	--	--	--	--	470	31	ND	5
Trans 1,2-dichloroethene	--	--	--	--	--	--	--	--	35	5	ND	5
Trichloroethene	--	--	--	--	--	--	--	--	300	31	ND	5
Vinyl chloride	--	--	--	--	--	--	--	--	11	10	ND	10
Field Measurements												
Turbidity (NTU)	114	--	239	--	640	--	240	--	397	--	252	--

Notes:

TPH-g/TPH-d analyses performed by EPA Method 8015M with silica gel cleanup for diesel; BTEX analyses performed by EPA Method 8021B; SVOC analyses performed by EPA Method 8270C; VOC analyses performed by EPA Method 8260B. Only those SVOC and VOC compounds identified above laboratory reporting limits are shown. RL = Laboratory reporting limit. TPH-g = Total petroleum hydrocarbons as gasoline. TPH-d = Total petroleum hydrocarbons as diesel. SVOCs = Semi-volatile organic compounds. VOCs = Volatile organic compounds. NTU = Nephelometric turbidity units. Refer to Appendix D for laboratory reports. Sampling locations are shown on Figure 2.

¹ This sample was analyzed for hexavalent chromium (EPA Method 7196); hexavalent chromium was not identified above the laboratory reporting limit (10 µg/L).

² This sample was also analyzed for PCBs (EPA Method 8082); PCBs were not identified above the laboratory reporting limit (0.49 µg/L).

³ Sample exhibits fuel pattern which does not resemble standard.

⁴ Lighter hydrocarbons contributed to the quantification.

⁵ Heavier hydrocarbons contributed to the quantification.

APPENDIX D

Tables and Figures from Iris-Cambria's *Site Investigation and Screening-Level Risk Assessment (January 2002)*

This appendix contains the following tables and figures from the Iris-Cambria (2002) report:

Figure 2	Site Plan
Table 1	Soil Analytical Data – Light-Range Petroleum Hydrocarbons and MTBE
Table 2	Soil Analytical Data – Heavy-Range Petroleum Hydrocarbons and SVOCs
Table 3	Soil Analytical Data – Additional VOCs
Table 4	Soil Analytical Data – Metals
Table 5	Groundwater Analytical and Elevation Data – Light-Range Petroleum Hydrocarbons and MTBE
Table 6	Groundwater Analytical and Elevation Data – Heavy-Range Petroleum Hydrocarbons and SVOCs
Table 7	Groundwater Analytical and Elevation Data - Metals



Iris - Cambria
Environmental, JV

SITE INVESTIGATION AND SCREENING-LEVEL RISK ASSESSMENT REPORT

Gray & Reynolds Development Site
Embarcadero Cove
1275 Embarcadero
Oakland, California

January 16, 2002

Prepared for:

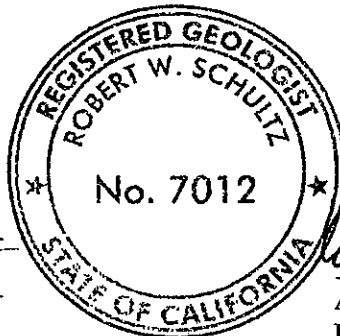
Port of Oakland
c/o Douglas P. Herman
EH&SC Department
530 Water Street
Oakland, California 94607

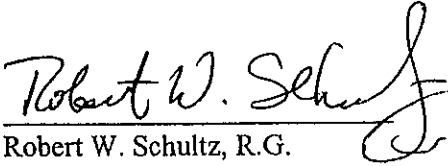
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1144 65th Street, Suite B
Oakland, California 94602

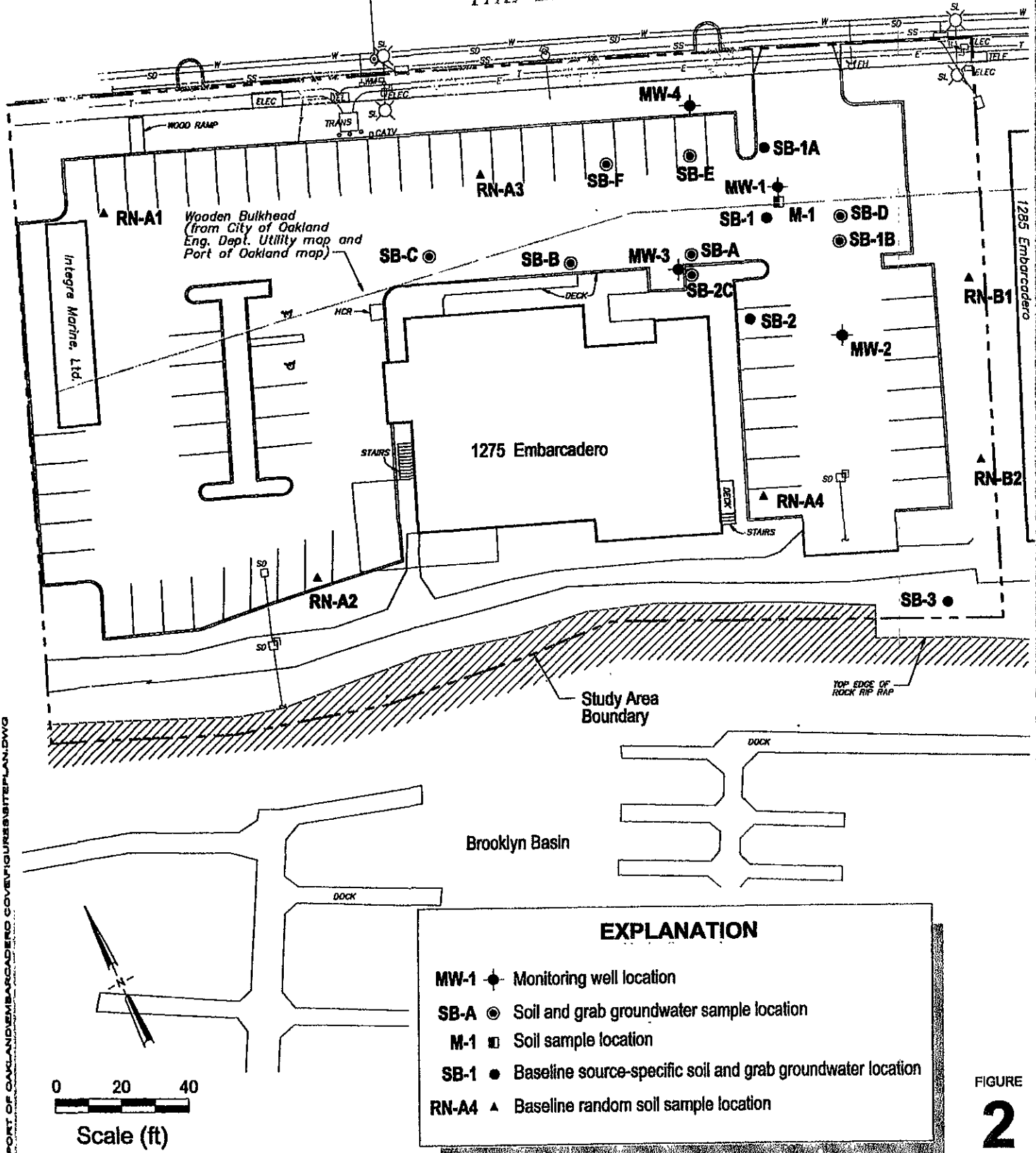



Robert W. Schultz, R.G.
Senior Project Geologist


Adrienne LaPierre
Principal Toxicologist

APPROX. LOCATION 78" DIA. INTERCEPTOR

THE EMBARCADERO



H:\PORT OF OAKLAND\EMBARCADERO COVE\FIGURES\SITEPLAN.DWG

FIGURE

2

Port of Oakland
 1275 Embarcadero
 Embarcadero Cove Project
 Oakland, California



C A M B R I A

Site Plan

CAMBRIA

Table 1: Soil Analytical Data - Light-Range Petroleum Hydrocarbons and MTBE - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Sample Depth (ft)	mg/kg					
			TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<i>Baseline Samples</i>								
RN-A1;1.5-2	05/01/01	1.5	--	< 0.005	< 0.005	< 0.005	< 0.005	< 1.0
RN-A2;1-1.5	05/01/01	1.0	--	< 0.005	< 0.005	< 0.005	< 0.005	< 1.0
RN-A3;0.5-1	05/01/01	0.5	--	< 0.005	< 0.005	< 0.005	< 0.005	< 1.0
RN-A4;1 0-1.5	05/01/01	1.0	--	< 0.005	< 0.005	< 0.005	< 0.005	< 1.0
RN-B1;1-1.5	05/01/01	1.0	--	< 0.005	< 0.005	< 0.005	< 0.005	< 1.0
RN-B2;1-1.5	05/01/01	1.0	--	< 0.005	< 0.005	< 0.005	< 0.005	< 1.0
SB-1;0.75-1.25	05/01/01	0.75	< 1.1	< 0.0056	< 0.0056	< 0.0056	< 0.0056	--
SB-1;3-3.5	05/01/01	3.0	< 1.0	0.013	< 0.0052	< 0.0052	< 0.0052	--
SB-1A;0-0.5	05/02/01	0.0	< 1.1	< 0.0054	< 0.0054	< 0.0054	< 0.0054	--
SB-1A;5-5.5	05/02/01	5.0	500	< 0.130	1.1	5.0	16.1	--
SB-1B;1-1.5	05/02/01	1.0	< 1.0	< 0.005	< 0.005	< 0.005	0.0074	--
SB-2;1-1.5	05/01/01	1.0	< .98	< 0.0049	< 0.0049	< 0.0049	< 0.0049	--
SB-2;4-4.5	05/01/01	4.0	< 1.1	< 0.0054	< 0.0054	< 0.0054	< 0.0054	--
SB-2C;0-0.5	05/02/01	0.0	< 0.96	< 0.0048	< 0.0048	< 0.0048	< 0.0048	--
SB-2C;3-3.5	05/02/01	3.0	< 1.0	< 0.0052	< 0.0052	< 0.0052	< 0.0052	--
<i>Cambria Samples</i>								
SB-A-3.5	08/30/01	3.5	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05
SB-B-3.5	08/30/01	3.5	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05
SB-D-3.5	08/30/01	3.5	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05
SB-E-3.5	08/30/01	3.5	1.4	0.014	0.0080	< 0.005	0.026	< 0.05
SB-F-3.5	08/30/01	3.5	2.5	0.021	0.010	< 0.005	0.005	< 0.05
M-1-5	09/17/01	5.0	2,300	1.8	3.7	48	7.2	5.1
MW-1-8.3	10/09/01	8.3	30	0.48	0.067	0.70	0.52	<0.05
MW-2-5.0	10/09/01	5.0	7.5	0.027	0.051	0.041	0.087	<0.05
MW-3-5.0	10/09/01	5.0	1.6	< 0.005	< 0.005	< 0.005	< 0.005	<0.05
MW-4-5.3	10/09/01	5.3	34	0.70	0.068	0.41	0.97	<0.05

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Table 1: Soil Analytical Data - Light-Range Petroleum Hydrocarbons and MTBE - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Sample Depth (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
			←————— mg/kg —————→					
<i>Soil Screening Values</i>								
Surface Soil (<3 m) Commercial Worker [non-drinking water source] ¹								
Human Health Risk-Based			11,000	0.39	89	220	210 sat	69
Soil Leaching-Based for Protection of Aquatic Life			400	2.1	8.4	24	1	1
Urban Area Ecotoxicity-Based			--	25	150	--	--	--
Construction Worker ²								
Human Health Risk-Based			16,000	16	520 sat	230 sat	210 sat	4900

Abbreviations and Methods:

ft = feet
 mg/kg = milligrams per kilogram
 -- = not available, not analyzed, or does not apply
 MTBE = methyl tert-butyl ether by EPA Method 8020
 Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020 or 8021B
 TPHg = total petroleum hydrocarbons as gasoline by EPA Methods modified 8015, 5030, and 8020 or 602
 sat = saturation limit

Notes:

¹ Soil screening values from RWQCB's (2000) Table B-2.
² Soil screening values from RWQCB's (2000) Table K-3.
Bolded values indicate exceedance of soil screening values.

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Table 2: Soil Analytical Data - Heavy-Range Petroleum Hydrocarbons and SVOCs - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Sample Depth (ft)	TPHd	TPHmo	bis(2-ethylhexyl) phthalate	mg/kg			
						Fluoranthene	2 - methyl naphthalene	Naphthalene	Pyrene
<i>Baseline Samples</i> ¹									
RN-A1;1.5-2	05/01/01	1.5	--	--	--	--	--	< 0.0046	--
RN-A2;1-1.5	05/01/01	1.0	--	--	--	--	--	< 0.005	--
RN-A3;0.5-1	05/01/01	0.5	--	--	--	--	--	< 0.005	--
RN-A4;1.0-1.5	05/01/01	1.0	--	--	--	--	--	< 0.0046	--
RN-B1;1-1.5	05/01/01	1.0	--	--	--	--	--	< 0.0049	--
RN-B2;1-1.5	05/01/01	1.0	--	--	--	--	--	< 0.0047	--
SB-1;0.75-1.25	05/01/01	0.75	62 ²	--	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
SB-1;3-3.5	05/01/01	3.0	13 ²	--	0.61	< 0.33	< 0.33	< 0.33	< 0.33
SB-1A;0-0.5	05/02/01	0.0	240 ²	--	< 6.60	< 6.60	< 6.60	< 6.60	< 6.60
SB-1A;5-5.5	05/02/01	5.0	40 ²	--	< 0.33	< 0.33	2.2	2.2	< 0.33
SB-1B;1-1.5	05/02/01	1.0	60 ²	--	--	--	--	--	--
SB-2;1-1.5	05/01/01	1.0	43 ²	--	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
SB-2;4-4.5	05/01/01	4.0	43 ²	--	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
SB-2C;0-0.5	05/02/01	0.0	25 ²	--	--	--	--	--	--
SB-2C;3-3.5	05/02/01	3.0	37 ²	--	--	--	--	--	--
<i>Cambria Samples</i>									
SB-A-3.5	08/30/01	3.5	1.4	5.2	--	< 0.25	--	< 0.25	< 0.25
SB-B-3.5	08/30/01	3.5	< 1.0	< 5.0	--	< 0.062	--	< 0.062	< 0.062
SB-D-3.5	08/30/01	3.5	< 1.0	< 5.0	--	< 0.062	--	< 0.062	< 0.062
SB-E-3.5	08/30/01	3.5	2.4	6.1	--	< 0.062	--	< 0.062	< 0.062
SB-F-3.5	08/30/01	3.5	4.6	16	--	< 0.25	--	< 0.25	< 0.25
M-1-5	09/17/01	5.0	850	97	--	--	--	--	--
MW-1-8.3	10/09/01	8.3	5.7	< 5.0	< 0.33	< 0.33	< 0.33	< 0.33 / 0.58 ³	< 0.33
MW-2-5.0	10/09/01	5.0	74	300	< 1.0	< 1.0	< 1.0	< 1.0 / < 0.005 ³	< 1.0
MW-3-5.0	10/09/01	5.0	17	160	< 0.33	< 0.33	< 0.33	< 0.33 / < 0.005 ³	< 0.33
MW-4-5.3	10/09/01	5.3	8.3	10	< 0.33	< 0.33	< 0.33	0.62 / 0.62 ³	< 0.33
<i>Soil Screening Values</i>									
Surface Soil (<3 m) Commercial Worker [non-drinking water source] ⁴									
Human Health Risk-Based			11,000	11,000	180	6,000	280	5.7	11,000
Soil Leaching-Based for Protection of Aquatic Life			500	1,000	530	60	0.25	4.9	55
Urban Area Ecotoxicity-Based			--	--	--	40	--	40	--
Construction Worker ⁵									
Human Health Risk-Based			16,000	16,000	1,200	12,000	18,000	450	16,000

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Table 2: Soil Analytical Data - Heavy-Range Petroleum Hydrocarbons and SVOCs - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Sample Depth (ft)	TPHd	TPHmo	bis(2-ethylhexyl) phthalate	Fluoranthene	2 - methyl naphthalene	Naphthalene	Pyrene
-----------	--------------	-------------------	------	-------	-----------------------------	--------------	------------------------	-------------	--------

Abbreviations and Methods:

ft = feet

mg/kg = milligrams per kilogram

-- = not available, not analyzed, or does not apply

TPHd = total petroleum hydrocarbons as diesel by EPA method 8015

TPHd analyses with silica gel clean-up prior to extraction unless otherwise noted

TPHmo = total petroleum hydrocarbons as motor oil by EPA method 8015

SVOC = semi-volatile organic compounds by EPA Method 8270 (modified 8100) and 3550 or 625 and 3510 unless otherwise noted

Notes:

Only those compounds above laboratory reporting limits are shown

¹ Baseline samples analyzed for SVOCs by EPA Method 8260 or 8270

² No silica gel cleanup performed, prepared by shaker table.

³ Analyzed by EPA Method 8270 and additionally by EPA Method 8260

⁴ Soil screening values from RWQCB's (2000) Table B-2.

⁵ Soil screening values from RWQCB's (2000) Table K-3.

Bolded values indicate exceedance of soil screening values.

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Table 3: Soil Analytical Data - Additional VOCs - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Sample Depth (ft)	n-Butyl benzene	Isopropyl benzene	p-Isopropyl toluene	n-Propyl benzene	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene
			←----- μg/kg -----→					
<i>Cambria Samples</i>								
MW-1-8.3	10/09/01	8.3	580	210	< 25	910	450	160
MW-2-5.0	10/09/01	5.0	18	< 5.0	11	17	26	11
MW-3-5.0	10/09/01	5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.7	< 5.0
MW-4-5.3	10/09/01	5.3	< 25	220	< 25	870	1,000	610

Soil Screening Values

Surface Soil (<3 m) Commercial Worker [non-drinking water source]

Human Health Risk-Based	--	--	--	--	--	--	--
Soil Leaching-Based for Protection of Aquatic Life	--	--	--	--	--	--	--
Urban Area Ecotoxicity-Based	--	--	--	--	--	--	--
Construction Worker							
Human Health Risk-Based	--	--	--	--	--	--	--

Abbreviations and Methods:

μg/kg = micrograms per kilogram

-- = not available, not analyzed, or does not apply

VOC = volatile organic compounds by EPA Method 8260

Notes:

Only those compounds above laboratory reporting limits are shown .

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Table 4: Soil Analytical Data - Metals - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Sample Depth (ft)	Barium (Ba)	Chromium (Cr) ¹	Hexavalent Chromium (Cr ⁶⁺)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Nickel (Ni)	Vanadium (V)	Zinc (Zn)
			← mg/kg →								
Baseline Samples											
COMP A	04/23/01	2	41	22	--	5.3	17	24	25	20	40
SB-3; 0.5-1	05/01/01	0.5	--	--	<0.05	--	--	--	--	--	--
SB-3; 3.5-4	05/01/01	3.5	--	--	<0.05	--	--	--	--	--	--
Cambria Samples											
MW-1-8.3	10/09/01	8.3	110	56	--	12	15	2.6	64	33	29
Soil Screening Values											
Surface Soil (<3 m) Commercial Worker [non-drinking water source] ²											
Human Health Risk-Based			2,400	610,000	1.8	24,000	15,000	1,000	1,000	2,900	120,000
Soil Leaching-Based for Protection of Aquatic Life			--	--	--	--	--	--	--	--	--
Urban Area Ecotoxicity-Based			1,500	750	8	80	225	--	150	200	600
Construction Worker ³											
Human Health Risk-Based			2,400	800,000	1.8	32,000	20,000	1,000	1,000	3,700	160,000

Abbreviations and Methods:

ft = feet

mg/kg = milligrams per kilogram

-- = not available, not analyzed, or does not apply

Metal analyses (CAM / CCR 17) by EPA Method 6010

Baseline SB-3 samples analyzed for hexavalent chromium by EPA Method 7196

Notes:

Only those compounds above laboratory reporting limits are shown

COMP A is four-point composite of RN-A1, RN-A2, RN-A3, and RN-A4.

¹ For purposes of this analysis, we have assumed that the total chromium detected at the Site is in the trivalent form. This assumption is consistent with the data collected at the Site (i.e., hexavalent chromium was not detected in samples from SB-3), and is based on our experience at similar industrial sites, where absent a source of hexavalent chromium, chromium in soils is typically found in the trivalent (reduced) form.

² Soil screening values from RWQCB's (2000) Table B-2.

³ Soil screening values from RWQCB's (2000) Table K-3.

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Table 5: Groundwater Analytical and Elevation Data - Light-Range Petroleum Hydrocarbons and MTBE - 1275 Embarcadero, Oakland, CA

Sample ID TOC	Date Sampled	Groundwater Elevation (ft ¹)	Depth to Water (ft)	TPHg	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE
<i>Baseline Grab Samples</i>									
SB-1	05/01/01	--	--	80,000	8,600	8,200	3,900	14,600	--
SB-1A	05/02/01	--	--	25,000	260	170	760	2,290	--
SB-2	05/01/01	--	--	< 50	< 0.5	< 0.5	< 0.5	< 0.5	--
<i>Cambria Grab Samples</i>									
SB-A	08/30/01	--	--	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
SB-B	08/30/01	--	--	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
SB-D	08/30/01	--	--	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
SB-E	08/30/01	--	--	39,000	3,200	750	1,200	3,600	< 200
SB-F	08/30/01	--	--	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
<i>Cambria Monitoring Well Samples</i>									
MW-1	10/12/01	4.88	7.15	--	--	--	--	--	--
12.03	10/19/01	4.81	7.22	11,000	900	300	470	1,000	--
	12/05/01 ²	5.33	6.70	13,000	1,300	180	1,200	860	< 20
	12/05/01 ³	4.74	7.29	3,100	270	12	150	74	< 5.0
	12/19/01 ⁴	4.95	7.08	--	--	--	--	--	--
MW-2	10/12/01	5.71	5.75	--	--	--	--	--	--
11.46	10/19/01	5.52	5.94	< 50	< 0.5	< 0.5	< 0.5	< 0.5	--
	12/05/01 ²	6.11	5.35	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	12/05/01 ³	5.66	5.80	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	12/19/01 ⁴	5.65	5.81	--	--	--	--	--	--
MW-3	10/12/01	5.89	6.60	--	--	--	--	--	--
12.49	10/19/01 ⁵	5.84	6.65	290	2.0	6.6	0.54	1.2	--
	12/05/01 ^{2,5}	6.69	5.8	310	0.72	2.2	< 0.5	< 0.5	< 5.0
	12/05/01 ^{3,5}	5.54	6.95	320	0.84	2.6	< 0.5	0.76	< 5.0
	12/19/01 ⁴	6.10	6.39	--	--	--	--	--	--
MW-4	10/12/01	4.98	8.15	--	--	--	--	--	--
13.13	10/19/01	4.91	8.22	44,000	1,900	270	1,500	3,300	--
	12/05/01 ²	5.61	7.52	13,000	120	28	170	380	< 10
	12/05/01 ³	5.08	8.05	20,000	420	78	390	870	< 20
	12/19/01 ⁴	5.09	8.04	--	--	--	--	--	--
<i>Trip Blank</i>									
TB	12/05/01	--	--	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0

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Table 5: Groundwater Analytical and Elevation Data - Light-Range Petroleum Hydrocarbons and MTBE - 1275 Embarcadero, Oakland, CA

Sample ID TOC (ft)	Date Sampled	Groundwater Elevation (ft ¹)	Depth to Water (ft)	TPHg	Benzene	Toluene	Ethylbenzene µg/L	Xylenes	MTBE
<i>Groundwater Screening Values</i> ⁶									
Indoor Air Impacts				--	84	76,000	170,000 sol	150,000	290000
Aquatic Life Protection				3,700 ^a	700 ^b	5,000 ^b	430 ^c	13 ^d	8,000 ^e

Abbreviations and Methods:

ft = feet
 µg/L = micrograms per liter
 -- = not available, not analyzed, or does not apply
 msl = mean sea level
 Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020
 MTBE = methyl tert-butyl ether by EPA Method 8020
 TPHg = total petroleum hydrocarbons as gasoline by EPA Methods modified 8015, 5030, and 8020 or 602
 TOC Elev. (ft) = top of casing elevation in feet (Port of Oakland datum)
 Depth to water in monitoring wells is ft below TOC.
 sol = solubility threshold

Notes:

¹ Elevation in feet, Port of Oakland datum
² Wells gauged between 6:00 am and 6:30 am on 12/5 near lower high tide.
³ Wells gauged between 11:40 am and 12:00 pm on 12/5 near higher high tide.
⁴ Wells gauged between 9:00 pm and 9:15 pm on 12/19 at lower low tide.
⁵ Sample was collected pre-purge.
⁶ Groundwater screening values from RWQCB's (2000) Table F-2, F-4a, b, and c.
Bolded values indicate exceedance of groundwater screening values.
^a California Toxic Rule, Saltwater Criteria for Continuous Concentration
^b USEPA Saltwater Chronic Lowest Observable Effect Level
^c USEPA Saltwater Acute Lowest Observable Effect Level
^d USDOE Freshwater Chronic Preliminary Remedial Goal
^e RWQCB Saltwater Criteria for Continuous Concentration (interim)

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Table 6: Groundwater Analytical and Elevation Data - Heavy-Range Petroleum Hydrocarbons and SVOCs - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Groundwater Elevation (ft ¹)	Depth to Water (ft)	TPHd	TPHmo	Acenaphthalene	bis(2-ethylhexyl) phthalate	Fluoranthene µg/L	1 - methyl-naphthalene	2 - methyl-naphthalene	Naphthalene	Phenanthrene	Pyrene
<i>Baseline Grab Samples</i>													
SB-1	05/01/01	--	--	2,900	--	< 94	< 94	< 94	--	260	610	< 94	< 94
SB-1A	05/02/01	--	--	800	--	< 9.6	< 9.6	< 9.6	--	130	170	< 9.6	< 9.6
SB-2	05/01/01	--	--	180	--	< 9.7	< 9.7	< 9.7	--	< 9.7	< 9.7	< 9.7	< 9.7
<i>Cambria Grab Samples</i>													
SB-A	08/30/01	--	--	1,500	7,200	< 10	--	< 10	--	--	< 10	< 10	< 10
SB-B	08/30/01	--	--	63	550	< 10	--	< 10	--	--	< 10	< 10	< 10
SB-D	08/30/01	--	--	1,100	3,400	< 10	--	11	--	--	< 10	< 10	11
SB-E	08/30/01	--	--	5,800	350	< 50	--	< 50	--	--	370	< 50	< 50
SB-F	08/30/01	--	--	480	1,400	< 10	--	< 10	--	--	< 10	< 10	< 10
<i>Cambria Monitoring Well Samples</i>													
MW-1	10/12/01	4.88	7.15	--	--	--	--	--	--	--	--	--	--
12.03	10/19/01	4.81	7.22	3,300	< 250	< 10	< 10	< 10	--	54	66	< 10	< 10
	12/05/01 ²	5.33	6.70	3,800	< 250	72	--	< 10	150	220	360	< 10	< 10
	12/05/01 ^{3,4}	4.74	7.29	680	< 250	9.6	--	< 1.0	18	14	22	1.3	< 1.0
	12/19/01 ⁵	4.95	7.08	--	--	--	--	--	--	--	--	--	--
MW-2	10/12/01	5.71	5.75	--	--	--	--	--	--	--	--	--	--
11.46	10/19/01	5.52	5.94	210	460	< 10	< 10	< 10	--	< 10	< 10	< 10	< 10
	12/5/01 ²	6.11	5.35	150	560	< 0.5	--	< 0.25	< 1.0	< 1.0	< 0.25	< 0.25	< 0.25
	12/05/01 ^{3,4}	5.66	5.80	75	270	< 0.5	--	< 0.25	< 1.0	< 1.0	< 0.25	< 0.25	< 0.25
	12/19/01 ⁵	5.65	5.81	--	--	--	--	--	--	--	--	--	--
MW-3	10/12/01	5.89	6.60	--	--	--	--	--	--	--	--	--	--
12.49	10/19/01 ⁶	5.84	6.65	1,600	1,300	< 25	< 25	< 25	--	670	420	< 25	< 25
	12/05/01 ^{2,6}	6.69	5.80	480	480	< 0.5	--	< 0.25	< 1.0	< 1.0	< 0.25	< 0.25	< 0.25
	12/05/01 ^{3,6}	5.54	6.95	530	550	< 0.5	--	< 0.25	< 1.0	< 1.0	< 0.25	< 0.25	0.31
	12/19/01 ⁵	6.10	6.39	--	--	--	--	--	--	--	--	--	--
MW-4	10/12/01	4.98	8.15	--	--	--	--	--	--	--	--	--	--
13.13	10/19/01	4.91	8.22	33,000	900	< 50	< 50	< 50	--	< 50	< 50	< 50	< 50
	12/05/01 ²	5.61	7.52	6,400	430	24	--	< 10	99	190	60	18	< 10
	12/05/01 ³	5.08	8.05	5,400	450	21	--	< 10	100	180	96	12	< 10
	12/19/01 ⁵	5.09	8.04	--	--	--	--	--	--	--	--	--	--

CAMBRIA

Table 6: Groundwater Analytical and Elevation Data - Heavy-Range Petroleum Hydrocarbons and SVOCs - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Groundwater Elevation (ft ¹)	Depth to Water (ft)	TPHd	TPHmo	Acenaphthalene	bis(2-ethylhexyl) phthalate	Fluoranthene µg/L	1-methylnaphthalene	2-methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
<i>Groundwater Screening Values⁷</i>													
Indoor Air Impacts				--	--	--	--	--	26,000 sol	26,000 sol	9,200	--	135 sol
Aquatic Life Protection				640 ^a	640 ^a	310 ^d	32 ^b	11 ^c	2.1 ^d	2.1 ^d	2,350 ^e	4.6 ^f	300 ^g

Abbreviations and Methods:

ft = feet
 µg/L = micrograms per liter
 -- = not available, not analyzed, or does not apply
 msl = mean sea level
 TOC Elev. (ft) = top of casing elevation in feet (Port of Oakland datum)
 TPHd analyses with silica gel clean-up prior to extraction
 TPHmo = total petroleum hydrocarbons as motor oil by EPA method 8015
 SVOC = semi-volatile organic compound analyses performed by EPA Method 8270 (modified 8100) and 3550 unless otherwise noted
 TPHd = total petroleum hydrocarbons as diesel by EPA method 8015, and 3550 or 3510
 Only those compounds above laboratory reporting limits are shown
 Depth to water in monitoring wells is ft below TOC.
 sol = solubility threshold

Notes:

- ¹ Elevation in feet, Port of Oakland datum
 - ² Wells gauged between 6:00 am and 6:30 am on 12/5 near lower high tide.
 - ³ Wells gauged between 11:40 am and 12:00 pm on 12/5 near higher high tide.
 - ⁴ SVOC extraction performed past standard 7day hold time per SW-846 Table 2-36 Revision 3, 12/96.
 - ⁵ Wells gauged between 9:00 pm and 9:15 pm on 12/19 at lower low tide.
 - ⁶ Sample was collected pre-purge.
 - ⁷ Groundwater screening values from RWQCB's (2000) Table F-2, F-4a, b, and c.
- Bolded values indicate exceedance of groundwater screening values.**
- ^a RWQCB Saltwater and Freshest Water Criteria
 - ^b USEPA Freshwater Chronic Ecotoxicity Criteria
 - ^c USEPA Saltwater Chronic Ecotoxicity Criteria
 - ^d USDOE Freshwater Chronic Preliminary Remedial Goal
 - ^e USEPA Saltwater Acute Lowest Observable Effect Level
 - ^f USEPA Saltwater Criterion for Continuous Concentration
 - ^g Ontario Ministry of Environment and Energy Drinking Water Screening Level

CAMBRIA

Table 7: Goundwater Analytical and Elevation Data - Metals - 1275 Embarcadero, Oakland, CA

Sample ID	Date Sampled	Groundwater Elevation (ft ¹)	Depth to Water (ft)	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Vanadium (V)	Zinc (Zn)
<i>Cambria Samples</i>																				
MW-1	12/07/01 ²	6.85	5.18	< 6	5.7	57	< 4	< 5	< 20	< 50	< 50	5.3	< 0.8	< 50	< 50	< 5	< 10	< 5	< 50	< 50
MW-1	12/07/01 ³	7.15	4.88	< 6	< 5	51	< 4	< 5	< 20	< 50	< 50	< 5	< 0.8	< 50	< 50	< 5	< 10	< 5	< 50	50

Abbreviations and Methods:

ft = feet
 ug/L = micrograms per liter
 Metal analyses (CAM / CCR 17) by EPA Method 6010

Notes:

Only those compounds above laboratory reporting limits are shown
¹ Elevation in feet, Port of Oakland datum
² Gauged at 5.40 am on 12/7 near higher high tide
³ Gauged at 11.40 am on 12/7 near lower high tide

APPENDIX E

Tables and Figures from Alisto Engineering Group's *Tank Closure Report (December 1994)*

This appendix contains the following tables and figures from the Alisto (1994) report:

Figure 2 Soil Sample Location Map

Table 1 Summary of Results of Soil Sampling

Table 2 Summary of Results of Groundwater Sampling

This appendix also contains a copy of the ACHCSA letter entitled *Recommendation for No Further Work at 1363 Embarcadero, Oakland, CA 94606* (January 1995).

TANK CLOSURE REPORT

**Port of Oakland Tank PF-01
1363 Embarcadero
Oakland, California**

Project No. 10-236-01-004

Prepared for:

**Port of Oakland
530 Water Street
Oakland, California**


Prepared by:

**Alisto Engineering Group
1777 Oakland Boulevard, Suite 200
Walnut Creek, California**

December 29, 1994

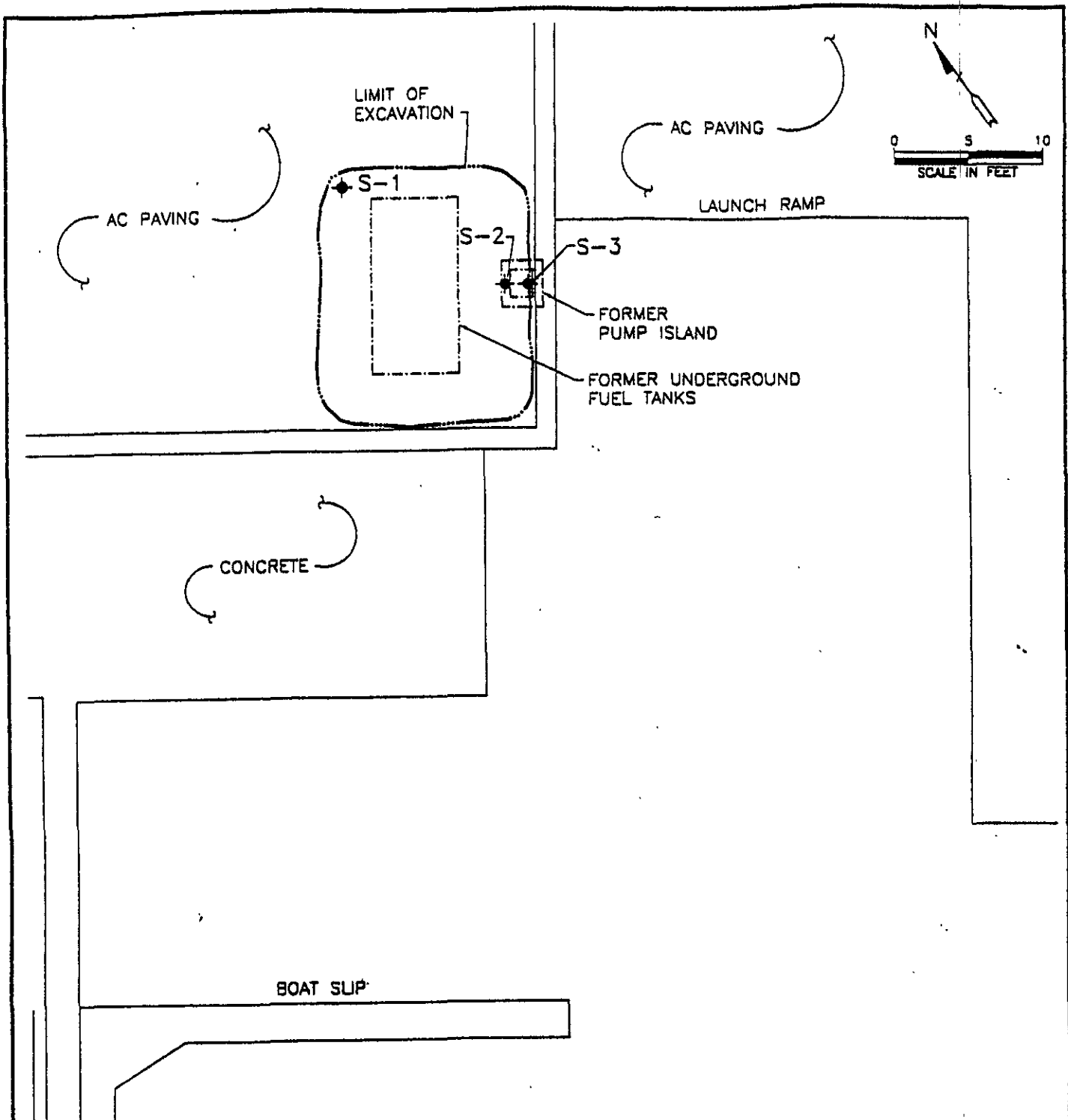


**Brady Nagle
Project Manager**



**Al Sevilla, P.E.
Principal**





LEGEND

◆ SOIL SAMPLE

FIGURE 2
SOIL SAMPLE LOCATION MAP
 PORT OF OAKLAND TANK PF-01
 1363 EMBARCADERO
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-236



10-236-006 11-23-84 REV 1-10

TABLE 1 - SUMMARY OF RESULTS OF SOIL SAMPLING
 PORT OF OAKLAND TANK No. PF-01
 1363 EMBARCADERO, OAKLAND, CALIFORNIA

PROJECT NO. 10-236

SAMPLE ID	SAMPLE DEPTH (fbg)	DATE OF SAMPLING	TPH-G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOTAL LEAD (mg/kg)	LAB
S-1	5	10/26/94	ND<0.3	ND<0.005	ND<0.005	ND<0.005	ND<0.005	27	CE
S-2	5	10/26/94	1.6	ND<0.005	ND<0.005	ND<0.005	0.007	280	CE
S-3	5	11/08/94	—	—	—	—	—	35	CE
SP-1, SP-2 SP-3, SP-4	1	10/26/94	ND<0.3	ND<0.005	ND<0.005	ND<0.005	ND<0.005	5	CE

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 fbg Feet below grade
 mg/kg Milligrams per kilogram
 ND Not detected above reported detection limit
 — Not analyzed
 CE Clayton Environmental

E3010-238TANKSOIL.W02

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 PORT OF OAKLAND TANK No. PF-01
 1363 EMBARCADERO, OAKLAND, CALIFORNIA

PROJECT NO. 10-236

SAMPLE ID	DATE OF SAMPLING	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	TOTAL LEAD (mg/L)	DISSOLVED LEAD (mg/L)	LAB
TANK PIT-1	10/26/94	460	14	74	15	92	1.7	--	CE
TANK PIT-2	11/08/94	--	--	--	--	--	ND<0.05	ND<0.05	CE

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 ug/L Micrograms per liter
 mg/L Milligrams per liter
 -- Not analyzed
 CE Clayton Environmental

ES010-236TANKWATE.WQ2

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
ALAMEDA COUNTY CC4580
DEPT. OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577

January 20, 1995
StID # 197

Port of Oakland
Mr. Dan Schoenholz
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Recommendation for No Further Work at 1363 Embarcadero,
Oakland CA 94606**

Dear Mr. Schoenholz:

This letter is to inform you that no further work will be required by our division at the above reference site in regards to the removal of the 2000 gallon gasoline tank, PF-01. Our office has received and reviewed the underground tank closure report dated December 29, 1994 prepared by Alisto Engineering Group. There appears to have been a minor fuel release which our office feels will not have any adverse affect on human or environmental health.

Please be advised that this letter does not relieve you of any liability under the California Health and Safety Code or Water Code for past, present, or future operations at this site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site, which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

You may contact me at (510) 567-6765 should you have any questions regarding this letter.

Sincerely,

A handwritten signature in cursive script that reads "Barney M. Chan".

Barney M. Chan
Hazardous Materials Specialist

cc: E. Howell, file
SO-1363

APPENDIX G

Various Information Regarding the 1441 Embarcadero Property

This appendix contains the following information regarding the 1441 Embarcadero Property:

Versar Figure 2 – Site Layout (from Versar's *Site Assessment Report* (May 1996))

Versar Figure 3 – Sample Locations (Versar figure included in ACHCSA 2000d)

Versar Table 1 – Summary of Analytical Laboratory Analysis (Versar figure included in ACHCSA 2000d)

Versar Figure 4 – Proposed Areas of Excavation – Western Section (from Versar's *Addendum to Phase II Site Investigation Work Plan* (September 1992))

ACHCSA letter re: *Phase II Site Investigation Work Plan* dated March 16, 1992.

Versar Table 4 – Laboratory Analytical Results for Soils

Gauntlett Table 4 – Historical Groundwater Chemistry Data (from Gauntlett Group's *Self Monitoring Report* (March 1997))

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Versar Figure 7 – Tank and Piping Locations (Versar figure included in ACHCSA 2000d)

Versar Table 5 – Laboratory Analytical Results for Soil (Versar table included in ACHCSA 2000d)

Versar Table 6 – Laboratory Analytical Results for Groundwater (Versar table included in ACHCSA 2000d)

From Geomatrix's *Site Evaluation Report* (April 1997):

Table 4 – Soil Analytical Results – Metals

Table 5 – Soil Analytical Results – Organic Compounds

Table 6 – Groundwater Analytical Results

Figure 4 – Soil and Groundwater Sample Locations, Western Portion

Figure 5 – Soil and Groundwater Sample Locations, Eastern Portion

Figure 6 – Soil Analytical Results, Metals, 0 to 5 Feet bgs, Western Portion

Figure 7 – Soil Analytical Results, Metals, 5 to 10 Feet bgs, Western Portion

Figure 8 – Soil Analytical Results, Petroleum Hydrocarbons, 0 to 5 Feet bgs, Western Portion

Figure 9 – Soil Analytical Results, Petroleum Hydrocarbons, 5 to 12 Feet bgs, Western Portion

Figure 10 – Soil Analytical Results, Metals, 0 to 5 Feet bgs, Eastern Portion

Figure 11 – Soil Analytical Results, Metals, 5 to 10 Feet bgs, Eastern Portion

Figure 12 – Soil Analytical Results, Petroleum Hydrocarbons, 0 to 5 Feet bgs, Eastern Portion

Figure 13 – Soil Analytical Results, Petroleum Hydrocarbons, 5 to 12 Feet bgs, Eastern Portion

Figure 14 – Summary of Groundwater Sampling Analytical Results, Western Portion

Figure 15 – Summary of Groundwater Sampling Analytical Results, Eastern Portion

APPENDIX F (continued)

Various Information Regarding the 1441 Embarcadero Property

Geomatrix Table 3 – Recommended Additional Soil and Groundwater Sampling and Analysis
(Geomatrix table included in the Port of Oakland's 1997 letter to the ACHCSA and RWQCB)

ACHCSA *Fuel Leak Site Case Closure* letter dated January 7, 2000.

ACHCSA *Remedial Action Completion Certification* dated January 7, 2000.

APPENDIX G (continued)

Various Information Regarding the 1441 Embarcadero Property

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Figure 13 – Soil Analytical Results, Petroleum Hydrocarbons, 5 to 12 Feet bgs, Eastern Portion

Figure 14 – Summary of Groundwater Sampling Analytical Results, Western Portion

Figure 15 – Summary of Groundwater Sampling Analytical Results, Eastern Portion

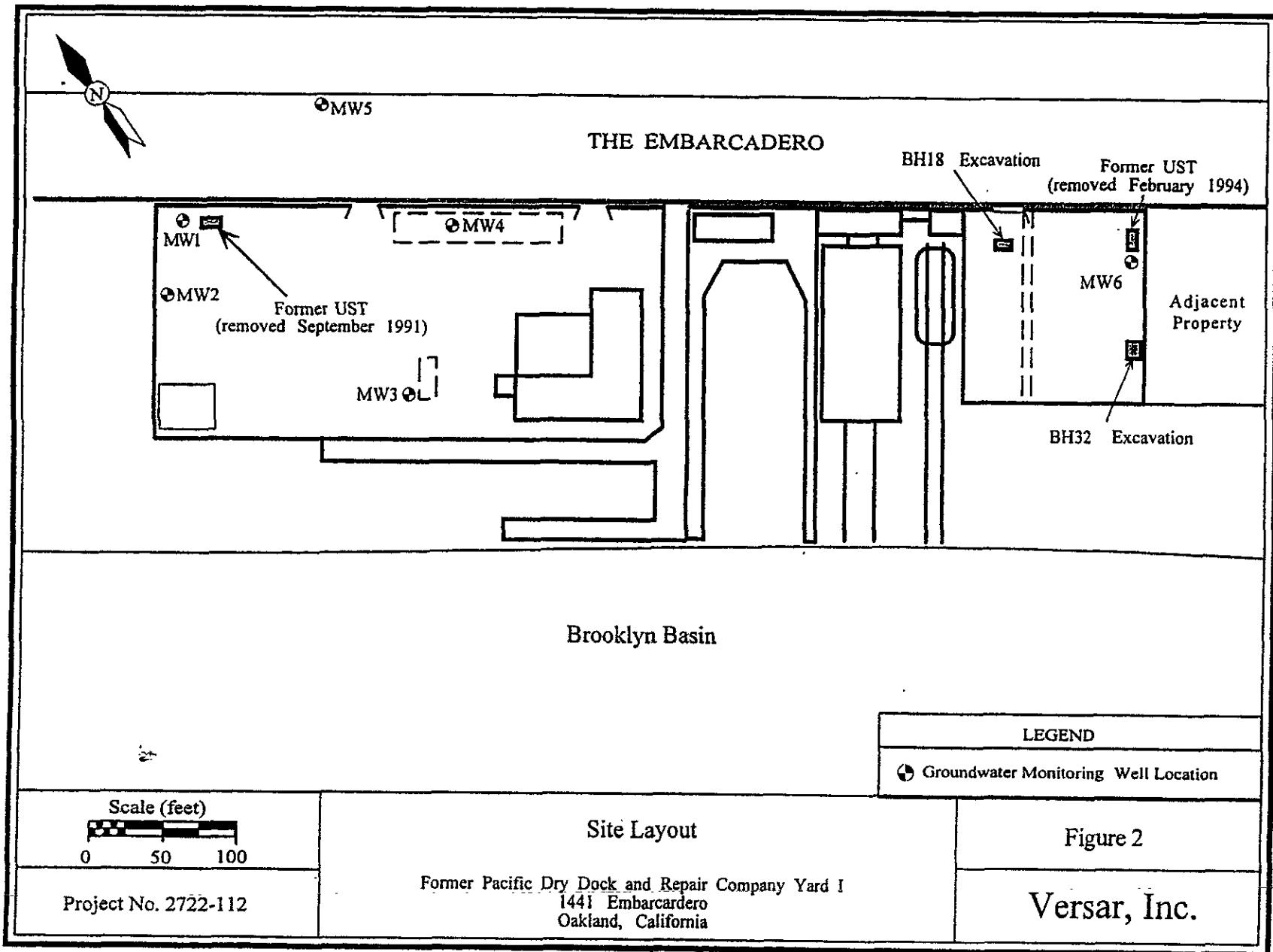
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The Embarcadero

Property Fence

Drum Storage Shed

Concrete Pad

UST Excavation

7703.26-N1

7703.26-S1

400 gal UST

Safety Barrier

7703.26-Pile1

Stockpiled Fill Material

Asphalt

LEGEND

7703.26-N1

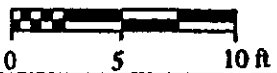


Soil Sample Location and Identification Code (Samples Collected September 24, 1991)



Ground Water in Excavation

Approximate Scale



Project No. 7703.26

Sample Locations

Western Section
Pacific Dry Dock Yard I
Oakland, California

Figure 3

Versar Inc.

Versar
Table 1

Summary of Analytical Laboratory Analysis¹

Pacific Dry Dock and Repair Yard I
Oakland, California

400 gal gas UST

Sample No.	Date of Sampling	Medium	TPH-G ²	Benzene ³	Toluene ³	Ethylbenzene ³	Xylenes ³	Organic Lead ⁴ -
7703.26-N1	9/24/91	Soil	11,000	1,100	110	460	850	<500
7703.26-S1	9/24/91	Soil	130,000	2,000	1,400	3,800	3,800	950
7703.26-Pile1	9/24/91	Soil	13,000	620	110	1,100	6,200	4,400
7703.26-Water	9/24/91	Water	34,000,000	<9,400	170,000	480,000	1,900,000	390

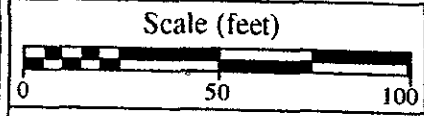
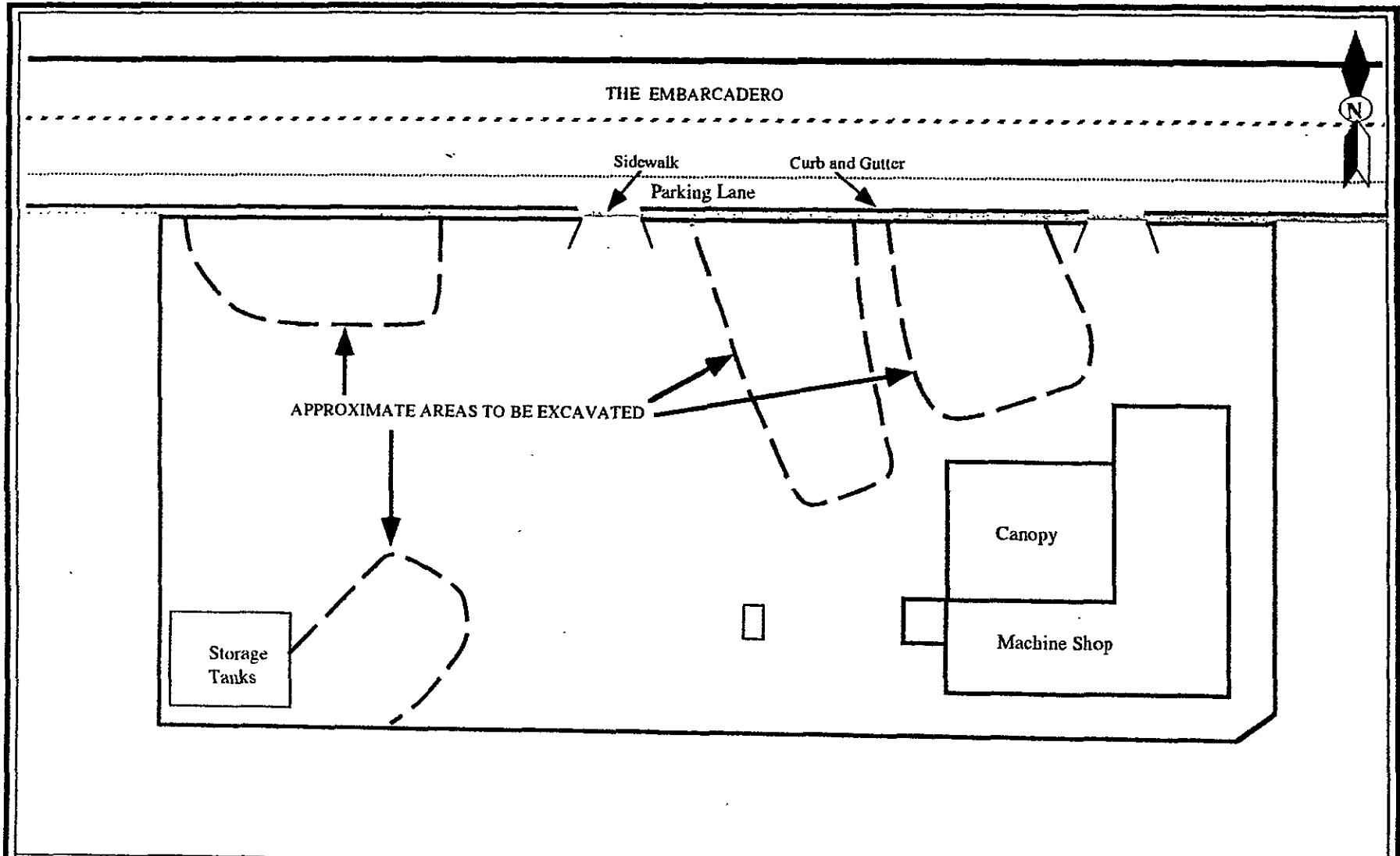
¹All results reported in micrograms per kilogram for soils, and micrograms per liter for water (ppb)

²Total Petroleum Hydrocarbons as Gasoline by DHS Method; detection limit dependant on sample

³Analytical method - EPA Method 8020/602; detection limit dependant on sample

⁴Analytical method - DHS Method; detection limit 500 micrograms per kilogram for soils and 100 micrograms per liter for water.

Versar INC. SACRAMENTO



Project No. 1457-026

Proposed Areas of Excavation-Western Section

Pacific Dry Dock Yard I
1441 Embarcadero
Oakland, California

Figure 4

Versar Inc.

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

March 16, 1992
STID # 1420

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

Mr. George Brooks
Mgr. Environmental Control
Crowley Maritime Corporation
2401 Fourth Ave.
P.O. Box 2287
Seattle, Washington 98111

RECEIVED

MAR 20 1992

Ans'd.....

Re: Phase II Site Investigation Work Plan for Pacific Dry Dock
Yard I, Western Section at 1441 Embarcadero, Oakland CA 94606

Dear Mr. Brooks:

Our office has received and reviewed the work plan for the Phase II Site Assessment at the western section of Yard I at Pacific Dry Dock. This report also includes the results of the initial site assessment performed on this area consisting of borings and grab water samples and chemical analysis. This Phase II work plan was developed from the results of the initial site assessment and through a conversation I had with Mr. Lawrence Kleinecke of Versar Inc. The general approach of excavation to the stated limits of: 1 parts per billion (ppb) for total benzene, toluene, ethyl benzene and xylenes (BTEX), 10 parts per million (ppm) for total petroleum hydrocarbons as gasoline (TPHg), 100 ppm for total petroleum hydrocarbons as diesel (TPHd) and 1000 ppm for total oil and grease (TOG) is acceptable.

Please note however, these limits may have an effect on the required length of ground water monitoring prior to recommendation for site sign-off to the Regional Water Board. Certainly, when at all possible, non-detectable levels of all hydrocarbons is preferable and allows for shorter ground water monitoring requirements.

Upon review of the analytical results in this report a number of items require clarification. These items include:

1. In the approval to the initial site assessment, it was agreed that at least one water and one soil sample near the former waste oil tank was to be analyzed for chlorinated hydrocarbons by Method 8010 or 8240 and analyzed for semi-volatiles by Method 8270. It appears that this minimum sample has not been analyzed. If this is the case, a water and soil sample from the monitoring well proposed in this area should be run for these parameters.

Mr. George Brooks
Pacific Dry Dock, Yard I Western Section
March 16, 1992
STID 1420
Page 2.

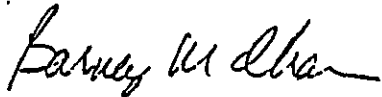
2. It was noticed that a number of borings were not run for any hydrocarbons analysis. The borings include BH42-BH45, BH20-BH21 and BH23-BH26. It is assumed that these samples did not show field observations which may have indicated potential contamination and were therefore not run. Please explain the reasoning for the absence of these analyses.

3. The proposed monitoring well locations are acceptable with the condition that after ground water gradient has been determined, a monitoring well should be located downgradient to all significant water or soil contaminant locations.

It was suggested that soil and ground water samples, which depict the estuary water and soil, be analyzed similarly for the parameters found on this site. In addition, total dissolved solids should be run in an attempt to establish the current water quality and likely long term affect of any residual hydrocarbon contamination left on site.

Upon clarification of the above items, you may proceed with the proposed Phase II Site Investigation. Please contact me at (510) 271-4320 should you have any questions.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office
R. Hiatt, RWQCB
L. Kleinecke, Versar Inc.
H. Hatayama, DOHS
D. Schoenholtz, Port of Oakland

PhaseIII1441

Laboratory Analytical Results for Soils
(Petroleum Hydrocarbons)

Pacific Dry Dock Yard I
Oakland, California

Versar Table 4.

Sample Number	Sample Depth (feet)	Sample Collection Date	Total Petroleum Hydrocarbons DHS Method LUFT Field Manual		O&G Hydrocarbons EPA Method 5520CF	Volatile Organics Modified EPA Method 8020			
			Gasoline (mg/kg)	Diesel (mg/kg)	Oil and Grease (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
MW1-2.0	2.0-2.5	6/23/93	11	2.6	710	<0.012	0.10	<0.018	<0.048
MW1-5.5	5.5-6.0	6/23/93	1.4	20	7,800	0.110	0.810	0.019	0.096
MW2-2.5	2.5-3.0	6/23/93	0.580	2.2	790	<0.005	0.170	<0.005	<0.015
MW2-5.5	5.5-6.0	6/23/93	<0.5	1.1	<50	<0.005	0.043	<0.005	<0.015
MW3-2.0	2.0-2.5	6/24/93	<0.5	2.2	<50	<0.005	0.0046	<0.006	<0.015
MW3-5.5	5.5-6.0	6/24/93	<0.5	32	<50	<0.005	<0.005	<0.005	<0.015
MW4-1.5	1.5-2.0	6/23/93	<0.5	<1.0	<50	<0.005	0.031	<0.005	<0.015
MW4-5.5	5.5-6.0	6/23/93	17	3,000	440	<0.036	0.078	0.130	0.30
MW5-2.0	2.0-2.5	6/24/93	<0.5	<1.0	<50	<0.005	0.094	<0.005	<0.015
MW5-5.5	5.5-6.0	6/24/93	<0.5	<1.0	<50	<0.005	0.022	<0.005	<0.015

Historical Groundwater Chemistry Data
Former Pacific Dry Docks and Repair Company Yard I
Port of Oakland, California

Groundwater Monitoring Well	Sample Date	TPH-G ¹ (µg/L) ³	TPH-D ² (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Filtered Lead (mg/L) ⁴
MW-1	07/01/93	ND ⁵	ND	ND	ND	ND	ND	NA ⁶
	10/14/93	ND	63	ND	ND	ND	ND	NA
	01/18/94	ND	60	NA	1.0	1.4	1.5	NA
	03/30/94	ND	110	2.5	1.7	0.56	1.9	NA
	07/15/94	ND	60	ND	ND	ND	ND	NA
	10/19/94	ND	830	ND	ND	ND	ND	NA
	02/02/95	ND	ND	ND	ND	ND	ND	NA
	05/03/95	ND	78	1.6	0.58	ND	ND	NA
	09/07/95	ND	ND	ND	ND	ND	ND	NA
	03/05/96	ND	320	7.5	ND	ND	ND	ND
	03/28/97	ND	440 ⁷	ND	ND	ND	ND	<0.05 ⁸
MW-2	07/01/93	ND	ND	ND	ND	ND	ND	NA
	10/14/93	ND	ND	ND	ND	ND	ND	NA
	01/18/94	ND	ND	ND	ND	ND	ND	NA
	03/30/94	ND	ND	ND	2.2	ND	ND	NA
	07/15/94	ND	ND	ND	ND	ND	ND	NA
	03/05/96	ND	53	ND	ND	ND	ND	ND
	03/28/97	ND	ND	ND	ND	ND	ND	ND
MW-3	07/01/93	ND	ND	ND	ND	ND	ND	NA
	10/14/93	ND	840	ND	ND	ND	ND	NA
	01/18/94	ND	64	ND	ND	ND	ND	NA
	03/30/94	ND	ND	ND	0.90	ND	ND	NA
	07/15/94	ND	ND	ND	ND	ND	ND	NA
	10/19/94	ND	ND	ND	ND	ND	ND	NA
	02/02/95	100	ND	38	0.55	ND	ND	NA
	05/03/95	ND	ND	ND	ND	ND	ND	NA
	09/07/95	ND	ND	ND	ND	ND	ND	NA
	03/05/96	ND	ND	ND	ND	ND	ND	ND
	03/28/97	ND	230 ⁷	ND	ND	ND	ND	<0.05 ⁸
MW-4	07/01/93	ND	ND	ND	ND	ND	ND	NA
	10/14/93	ND	ND	ND	ND	ND	ND	NA
	01/18/94	ND	ND	ND	ND	ND	ND	NA
	03/30/94	ND	ND	ND	1.5	ND	1.5	NA
	07/15/94	ND	ND	ND	ND	ND	ND	NA
	03/05/96	ND	ND	ND	ND	ND	ND	ND
	03/28/97	ND	340 ⁷	ND	ND	ND	ND	ND
MW-5	07/01/93	ND	ND	ND	ND	ND	ND	NA
	10/14/93	ND	ND	ND	ND	ND	ND	NA
	01/18/94	ND	ND	ND	ND	ND	ND	NA
	03/30/94	ND	ND	ND	0.87	ND	ND	NA
	07/15/94	ND	ND	ND	ND	ND	NA	NA
	03/05/96	ND	98	ND	ND	ND	ND	ND
	03/28/97	ND	ND	ND	ND	ND	ND	ND
MW-6	03/05/96	ND	77	ND	ND	ND	ND	ND
	03/28/97	ND	ND	ND	ND	ND	ND	ND

1 TPH-G = Total Petroleum Hydrocarbons as Gasoline

2 TPH-D = Total Petroleum Hydrocarbons as Diesel

3 (µg/L) = micrograms per liter

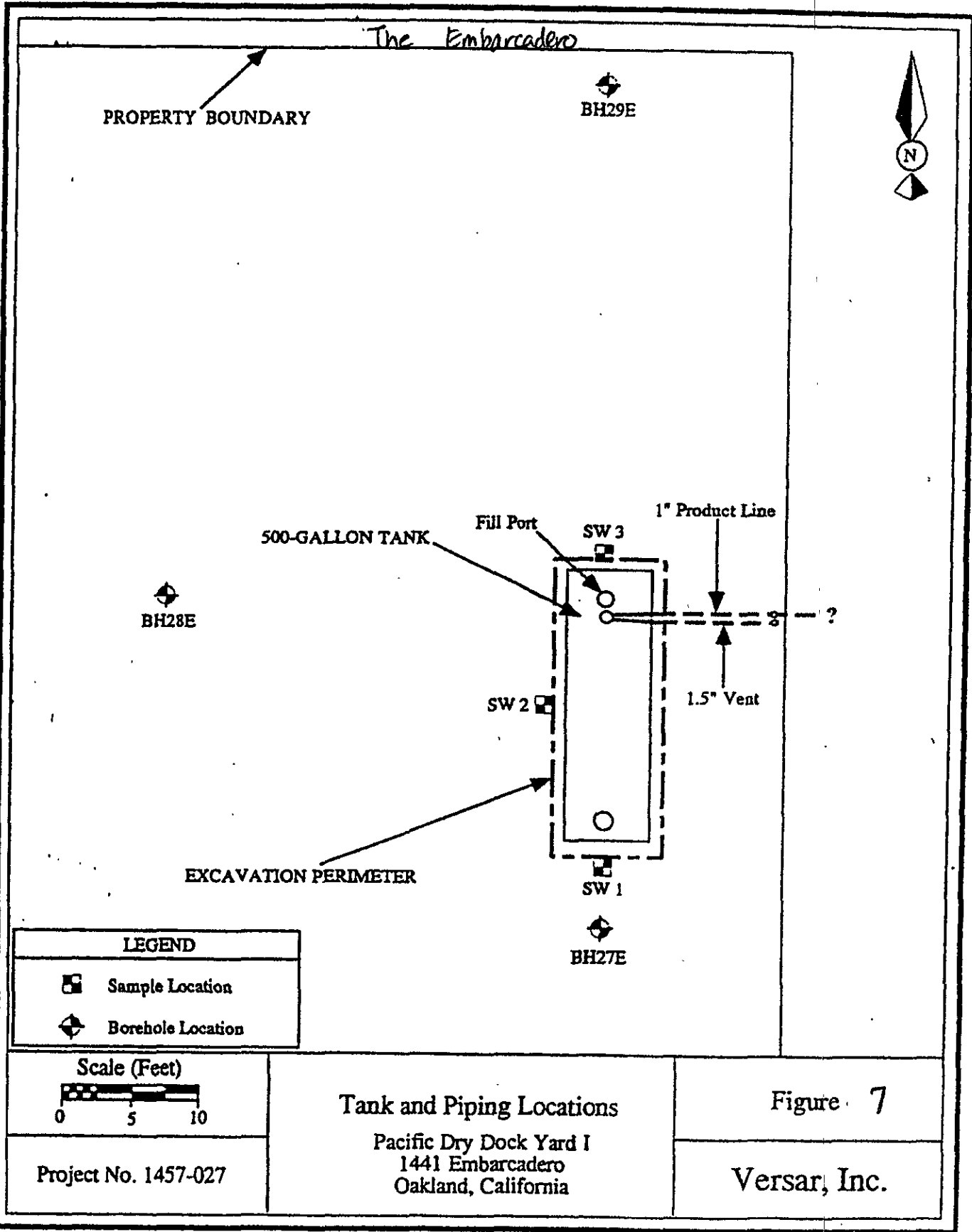
4 (mg/L) = milligrams per liter

5 ND = not detected at or above method reporting limit

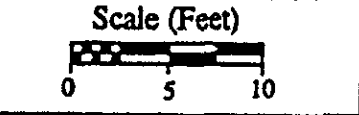
6 NA = not analyzed

7 Diesel in sample appeared to be weathered

8 The method reporting limit was elevated because of matrix interferences



LEGEND	
	Sample Location
	Borehole Location



Project No. 1457-027

Tank and Piping Locations
 Pacific Dry Dock Yard I
 1441 Embarcadero
 Oakland, California

Figure 7

Versar, Inc.

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Table 5

Laboratory Analytical Results for Soils (500-gallon UST)
Pacific Dry Dock and Repair Yard I (1441 Embarcadero)
Oakland, California

Sample Number	Sample Collection Date	Total Petroleum Hydrocarbons ¹		TOG ²	Volatile Organics ³				Lead ⁴ (mg/kg)
		Gasoline (mg/kg) ⁴	Diesel (mg/kg)	Total Oil and Grease (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	
COMP-1	02/17/94	0.51	57	<5.0	<0.005	0.010	<0.005	0.047	18
SW1	02/17/94	<0.5	72	<5.0	<0.005	<0.005	<0.005	<0.015	8.2
SW2	02/17/94	<0.5	<1.0	<5.0	<0.005	<0.005	<0.005	<0.015	6.9
SW3	02/17/94	<0.5	<1.0	<5.0	<0.005	<0.005	<0.005	<0.015	5.1

¹ California DIISLUFT Manual Method

² EPA Method 5220C&F

³ EPA Method 8020

⁴ Milligrams per kilogram (equivalent to parts per million)

⁵ EPA Method 7420

Versar
Table 6

Laboratory Analytical Results for Groundwater (grab) (500-gallon UST)

Pacific Dry Dock and Repair Yard I (1441 Embarcadero)
Oakland, California

Sample Number	Sample Collection Date	Total Petroleum Hydrocarbons ¹		TOG ²	Volatile Organics ³			
		Gasoline (mg/L) ⁴	Diesel (mg/L)	Total Oil and Grease (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
UST1	02/17/94	0.38	8.4	<5.0	0.028	0.12	0.011	0.035

¹ California DHS/LUFT Manual Method

² EPA Method 5220C&F

³ EPA Method 8020

⁴ Milligrams per liter (equivalent to parts per million)

**DRAFT
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Attorney-Work Product**

**SITE EVALUATION REPORT
FORMER PACIFIC DRY DOCK FACILITY
YARD I**

**Port of Oakland
1441 Embarcadero
Oakland, California**

Prepared for

**Washburn, Briscoe & McCarthy
55 Francisco Street
San Francisco, California**

**April 1997
Project 3999**

Prepared by Geomatrix

TABLE 4

SOIL ANALYTICAL RESULTS - METALS¹
Former Pacific Dry Dock and Repair Facility, Yard I
1441 Embarcadero
Oakland, California

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Page 1 of 3

Concentrations in milligrams per kilogram (mg/kg)

Area	Boring/ Sample ID	Sample Date	Sample Depth (feet)	Arsenic	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Zinc
Industrial PRG²				2.4	450	97,000	63,000	1900	68	34,000	100,000
10 x STLC³				50	50	800	250	50	2	200	2500
Residential PRG²				0.33	210	4600	2800	130	6.5	150	23,000
LBNL Background⁴				19.1	99.6	22.2	69.4	16.1	0.4	119.8	106.1
Western	BH9	10/25/91	3.5 - 4.0	-	15	- ⁶	-	14	-	24	140
	BH11	10/25/91	9.5 - 10.0	-	39	-	-	5.8	-	56	36
	BH13	10/25/91	8.5 - 9.0	-	36	-	-	8.6	-	42	250
	MW1	6/23/93	5.5	9.2	18	17	16	29	<0.12	15	78
	MW3	6/23/93	5.5	1.8	14	<12	22	5	0.48	20	71
Eastern	PDDI-5 ⁷	12/89	2.5	4.6	39	13	50	55	0.65	69	160
	PDDI-6 ⁷	12/89	2.5	24	280	17	33	290	1.6	210	840
	PDDI-7 ⁷	12/89	1.5	47	77	99	3700	4400	21	55	1400
	PDDI-11 ⁷	12/89	0.5	-	-	-	550	75	-	-	-
	PDDI-12 ⁷	12/89	0.5	-	-	-	3300	290	-	-	-
	BH24E	8/17/92	4.5 - 5.0	-	-	-	38	17	0.31	-	-
	BH25E	8/17/92	4.5 - 5.0	-	-	-	22	5.2	0.099	-	-
	BH29-E	8/17/92	5.0	-	-	-	18	6.8	0.12	-	-
	BH30E	8/18/92	4.5 - 5.0	-	-	-	27	5.6	0.11	-	-
	BH33E	8/18/92	4.5 - 5.0	-	-	-	17	26	0.091	-	-
	SW1	2/17/94	6.25	-	-	-	-	8.2	-	-	-

TABLE 4

SOIL ANALYTICAL RESULTS - METALS¹
 Former Pacific Dry Dock and Repair Facility, Yard I
 1441 Embarcadero
 Oakland, California

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Page 2 of 3

Area	Boring/ Sample ID	Sample Date	Sample Depth (feet)	Arsenic	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Zinc	
Industrial PRG²				2.4	450	97,000	63,000	1000	68	34,000	100,000	
10 x STLC³				50	50	800	250	50	2	200	2500	
Residential PRG²				0.38	210	4600	2800	130	6.5	150	23,000	
LBNL Background⁴				19.1	99.6	22.2	69.4	16.1	0.4	119.8	106.1	
Eastern (cont.)	SW2	2/17/94	6.7	-	-	-	-	6.9	-	-	-	
	SW3	2/17/94	6.7	-	-	-	-	5.1	-	-	-	
	BH18-N ⁸	6/20/95	5.0	-	-	-	-	81.2	-	-	-	
	BH18-S ⁸	6/20/95	5.0	-	-	-	-	38.2	-	-	-	
	BH18-E ⁸	6/20/95	5.0	-	-	-	-	26.9	-	-	-	
	BH18-W2 ⁸	7/14/95	5.0	-	-	-	-	2150	-	-	-	
	BH18-BTM	6/20/95	5.0	-	-	-	-	18	-	-	-	
	BH32-N ⁸	6/20/95	5.0	-	-	-	-	177	-	-	-	
	BH32-S2 ⁸	7/14/95	5.0	-	-	-	-	521	-	-	-	
	BH32-W2 ⁸	7/14/95	5.0	-	-	-	-	752	-	-	-	
	BH32-E2 ⁸	7/14/95	5.0	-	-	-	-	831	-	-	-	
	BH32-BTM2 ⁸	7/14/95	5.0	-	-	-	-	1800	-	-	-	
	HP1		2/28/96	2.0-2.5	-	-	-	-	5.2	-	-	-
			2/28/96	5.0-5.5	-	-	-	-	26	-	-	-
			2/28/96	8.0-8.5	-	-	-	-	8.8	-	-	-
HP4		2/28/96	2.0-2.5	-	-	-	-	1200	-	-	-	
		2/28/96	5.0-5.5	-	-	-	-	1200	-	-	-	

TABLE 4

SOIL ANALYTICAL RESULTS - METALS¹
 Former Pacific Dry Dock and Repair Facility, Yard I
 1441 Embarcadero
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Area	Boring/ Sample ID	Sample Date	Sample Depth (feet)	Arsenic	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Zinc
Industrial PRG ²				2.4	450	97,000	63,000	1000	68	34,000	100,000
10 x STLC ³				50	50	800	250	50	2	200	2500
Residential PRG ²				0.18	210	4600	2800	130	6.5	150	23,000
LBNL Background ⁴				19.1	99.6	22.2	69.4	16.1	0.4	119.8	106.1
Eastern (cont.)	H1P4 (cont.)	2/28/96	7.0-7.5	-	-	-	-	5.4	-	-	-
	SB2	2/28/96	2.5-3.0	-	-	-	-	840	-	-	-
		2/28/96	5.0-5.5	-	-	-	-	4100	-	-	-
	SB3	2/28/96	2.0-2.5	-	-	-	-	520	-	-	-
		2/28/96	8.0-8.5	-	-	-	-	35	-	-	-

Notes:

- 1 Soil samples were also collected for chemical analyses in January 1990, October 1991, January 1992, August 1992, and February 1994; some or all of the data for these samples were not available. Shading indicates the location of the samples is not known.
- 2 PRG = EPA Region 9 preliminary remediation goal for industrial and residential soil, 1 August 1996.
- 3 STLC = soluble threshold limit concentration, California Code of Regulations, Title 22, Section 66261.24.
- 4 LBNL Background = background concentrations from August 1995 Protocol for Determining Background Concentrations in Soil at Lawrence Berkeley National Laboratory.
- 5 WET = California Waste Extraction Test; mg/l = milligrams per liter.
- 6 -- = not analyzed for compound indicated.
- 7 Possible sediment rather than soil sample.
- 8 Samples collected from sidewalls and/or bottom of two soil excavations (BH18 and BH32) and remain in place.