WORK PLAN FOR REMEDIAL INVESTIGATION
SEABREEZE YACHT CENTER, INC.
Oakland, California

Prepared for

PORT OF OAKLAND
Oakland, California

September 1989

Prepared by

BASELINE ENVIRONMENTAL CONSULTING
5900 Hollis Street, Suite D
Emeryville, California 94608
415/420-8686

S9-139

11/3/89 : TALKED TO MARTA WILLIAMS & OK'D PLAN.
—WILL SEND MICH

BASELINE

ENVIRONMENTAL CONSULTING

11 September 1989
S9-139

Ms. Michele Heffes
PORT OF OAKLAND
77 Jack London Square
Oakland, California 94607

Subject: **Remedial Investigation Work Plan for Soil Contamination at Seabreeze Yacht Harbor, Inc. in Oakland, CA**

Dear Michele:

Enclosed please find five copies of the finalized work plan for investigation of soil contamination at the Seabreeze Yacht Center, Inc. Should you have any questions regarding this report or need additional information, please call us at your convenience.

Sincerely,

Yane Nordhav
Principal
Reg. Geologist No. 4009

Marta Williams
Associate

YN/MW/cr/S32

Enclosure

5900 Hollis Street, Suite D • Emeryville, CA 94608 • (415) 420-8686 • FAX (415) 420-1707

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WORK PLAN FOR REMEDIAL INVESTIGATION
SEABREEZE YACHT CENTER, INC.
280 6th Avenue, Oakland

I. INTRODUCTION

The following work plan is submitted in response to a certified letter received by the Port of Oakland from the Alameda County Department of Environmental Health, Hazardous Materials Program (County) on 4 August 1989. The letter notified the Port that the Seabreeze Yacht Center (Seabreeze), located on Port property at 280 6th Avenue, Oakland, California, was in violation of the California Health and Safety Code, Section 25189 (d), and the California Code of Regulations Title 22 (Title 22), Sections 66699 and 66328. The County has requested that the Port submit a plan for assessing contamination at this site. The Port has retained BASELINE Environmental Consulting to prepare this plan.

A. Scope of Work

The remedial investigation work plan provides information on available historical site ownership and use data for the property at 280 6th Avenue in Oakland, including a description of types and locations of hazardous materials known to have been used on-site; a description of the site setting and initial soil contamination results; the methods and procedures to be used in determining the lateral and vertical extent of identified soil contamination; the methods and procedures to be used to characterize and dispose of drums and containers located on-site; a plan for determining groundwater contamination; a site safety plan; a discussion of report procedures; and a proposed schedule.

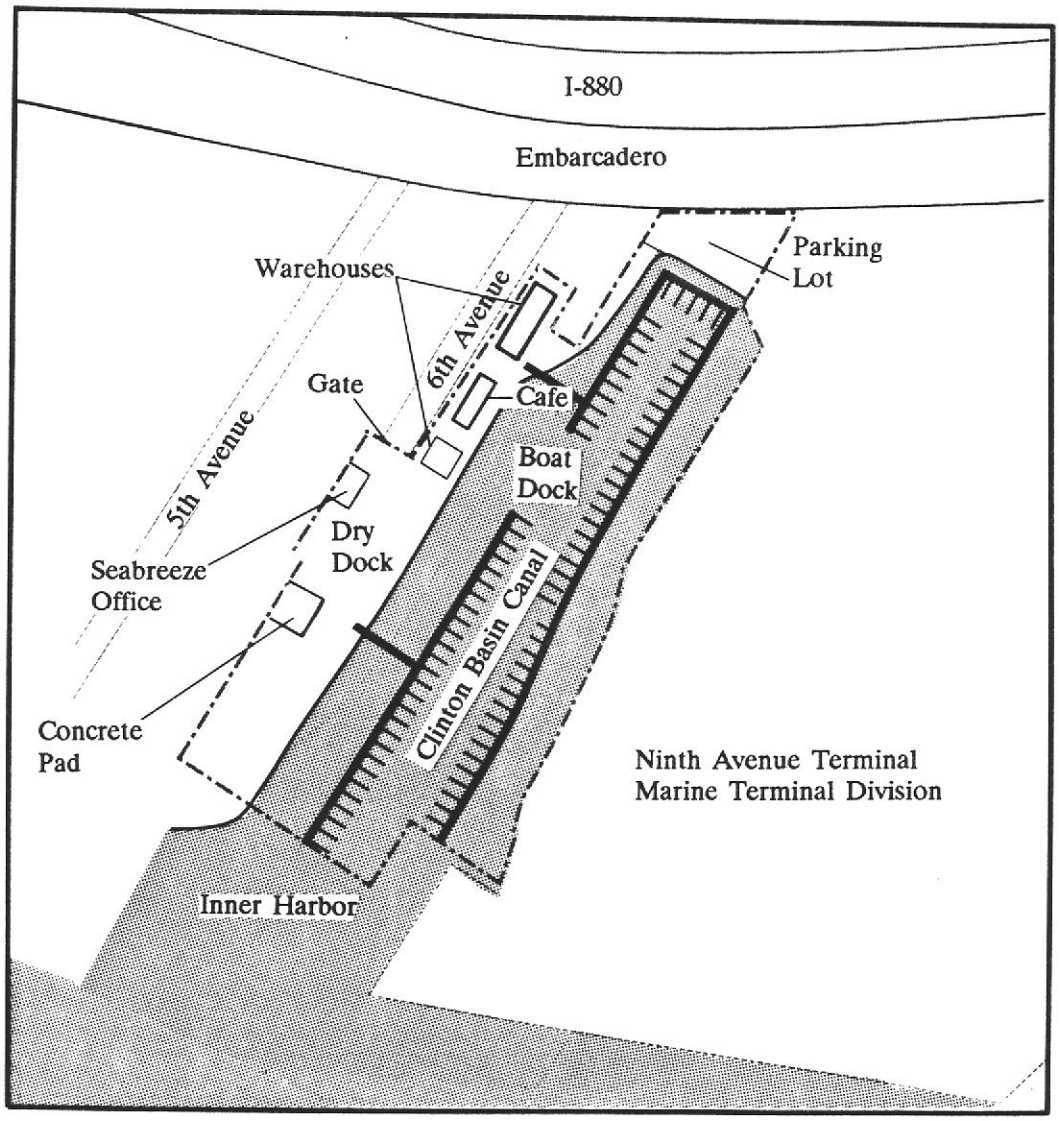
B. Site History

Site Ownership

The property consists of approximately nine acres (Figure 1), located at the foot of 6th Avenue. Approximately two acres are used as dry dock for small boat repair and maintenance. The Clinton Basin

SITE PLAN
Seabreeze Yacht Center
Oakland, California

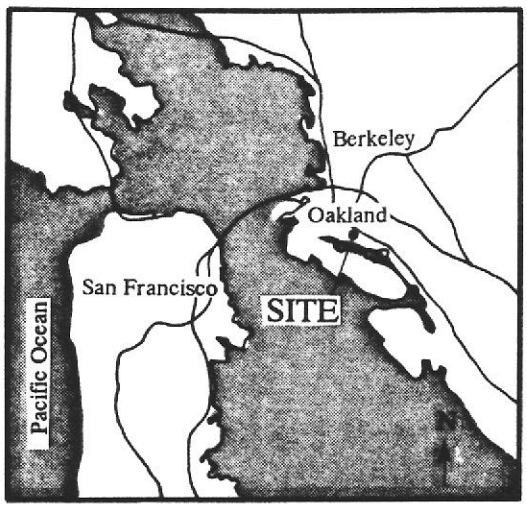
Figure 1



Legend:

Site Boundary

0 300 Feet



Not to Scale

BASELINE

Canal occupies approximately six and one-half acres and about 100 boats are currently berthed there. The remaining one-half acre is a parking lot located adjacent to the Embarcadero (see Figure 1).

The earliest recorded owner of the site in the Port of Oakland files dates to 1905. At that time the property was owned by the Oakland Harbor Development Company and the Magnesite Dock and Land Company. No information for the period between 1905 and 1929 was available from the Port of Oakland files. The property was owned by the Pacific Carbonic Gas Company in 1929, but no information on the ownership history during the intervening years between 1929 and 1946 was available. In 1946, the PORT of Oakland purchased the property from Richfield Oil Corporation (BASELINE Communication with Robert Jones, PORT of Oakland, 8 June 1989).

The PORT of Oakland's record of tenants for the site indicate that it was leased to Kamelart Boat Works in 1955. In 1961 the property was leased to Hans Glaser Boat Service Inc. (aka Seabreeze Yacht, Inc.) which has operated on the site since 1961 to the present.

Historical Site Uses

Aerial photographs from Pacific Aerial Survey were reviewed for the years 1947, 1953, 1959, 1969, 1975, 1981, 1985, and 1988. Throughout these years, the photographs indicate the presence of one large building and numerous small boats in dry dock on the property. Large vessels, presumably Navy ships, are visible in Clinton Basin, which is adjacent to the site, in the 1947 photograph. The 1985 photograph shows a dry dock repair area in the triangle of land which is currently an asphalt-paved parking lot (see Figure 1).

Historical Sanborn Insurance company maps for the area dating to 1911 and a map of the area published in 1868 in the Map of Oakland and Vicinity, by W. F. Boardman, indicate that the site was formerly the approximate location of the historic outlet between Lake Merritt and the Oakland Estuary/San Antonio Creek. The nature of any fill material which may have been used to create the site is not known.

There was no information on this property in the United States Environmental Protection Agency (EPA) data bases searched by BASELINE. Nor was there any information in the State of California, Department of Health Services (DHS) data bases for this site. The site has never operated under a National Pollution Discharge Elimination System permit, for discharge of wastewaters to the waters of the State, according to files reviewed at the Regional Water Quality Control Board. The East Bay Municipal Utility District does

not list this site as ever having been permitted to discharge industrial wastewater to the utility's wastewater treatment plant.

History of County Involvement at Site

The site was inspected by Mr. Thomas Peacock of the County in 1985, 1986, and 1987; paint sandblast waste, used oil, and used thinners were identified on-site, but no formal action was taken by the County as a result of these inspections (BASELINE communication with Ariu Levi, Alameda County Hazardous Materials Division, 7 June 1989). On March 24, 1988, Seabreeze filed for bankruptcy. In 1988, Mr. Ariu Levi performed the County site inspection and collected soil samples on-site. As described in detail in the following section on "Initial Soil Contamination Results", the samples Mr. Levi collected were found to be high in copper and other metals. A Notice of Violation describing the levels of metals found in soils and delineating corrective action required by the County was sent by certified mail to Seabreeze on October 20, 1988. Seabreeze responded by mail to the County on November 16, 1988 indicating that further soil sampling would by conducted on-site and that results would be forwarded to the County. Since that time, there is no record of sampling having been conducted by Seabreeze.

A motion was filed by the Port on May 8, 1989 for an Order declaring Seabreeze's lease with the Port deemed rejected by operation of law. On July 31, 1989, after oral argument was presented, the Court ruled that Seabreeze's lease was deemed rejected by operation of law and ordered the Trustee of the debtor's estate to vacate the premises by August 14, 1989. On August 3, 1989, the Alameda County District Attorney's Office notified the Trustee that as part of the Trustee's surrender of possession of the premises to the Port, the Trustee was required to properly manifest and remove the hazardous wastes on the premises. The Trustee and the Port are in the process of negotiating a stipulation which would result in compliance with the District Attorney's August 3, 1989 notice to the Trustee.

Site Reconnaissance

BASELINE conducted three site reconnaissances of this property. During the first, on 8 June 1989, approximately 25 small sail and power boats, at an average size of 30 feet, were present in dry dock on the property (Figure 1). Boat owners were observed hand sanding and painting the boats. Except for a small parcel of the property, an area of approximately 20 by 50 feet, the dry dock boat repair activities are

carried out on unpaved soil. A slight discoloration, possibly from oil, was observed under some of the boats in dry dock.

Oily discoloration was also observed in the following two drum storage areas: 1) The first area was located toward the back of the lot and 2) on the opposite side from the Basin, where twelve 55-gallon drums were stored on a pallet against the fence. Most drums were open and appeared to be filled with waste oil. One closed drum was labeled as flammable and was a Kopper Chemical drum (contents otherwise unknown). The second drum storage area was adjacent to the office at the end of 6th Avenue. Six drums of unknown content were observed there. In both cases, the stained soil areas were approximately five feet long by five feet wide.

The second site reconnaissance was conducted on 9 August 1989. Forty-three closed 55-gallon drums and more than one hundred other containers, ranging in size from two pints to five gallons were inventoried. The contents of the 55-gallon drums and the smaller containers were verbally described to BASELINE by employees of Seabreeze. The specific contents of each drum and container are described below in the section entitled "Characterization, Removal, and Disposal of On-site Drums and Containers". It appeared that some of the drums were mislabelled (based on interviews with on-site personnel). MSDS information was not available.

The third site reconnaissance was conducted on 28 August 1989, for the purpose of finalizing the soil sampling plan. Site buildings were inspected and no evidence of hazardous materials/waste usage or spillage was evident inside any of the buildings. The small one-half foot strip of land included in the site boundary on the south side of Clinton Basin Canal is not accessible to pedestrians or boats. BASELINE concluded that contamination of this site by tenants or lease-holders of Seabreeze was unlikely. No stained soils or stressed vegetation were observed in this area.

II. SITE DESCRIPTION

A. Setting

The Seabreeze site is adjacent to the Oakland Inner Harbor (see Figure 1). Industries in the area include boat works, restaurants, marine supply stores, and yacht sales. The Ninth Street Marine Terminal is located

to the south, and I-880 is located a few hundred yards to the northeast of the site. The depth to shallow groundwater on-site is expected to be approximately four feet based on the distance from the site ground surface to the high tide water line in Clinton Basin Canal. The flow of shallow groundwater on-site would be expected to be toward the open waters of the Oakland Inner Harbor.

B. Initial Soil Contamination Results

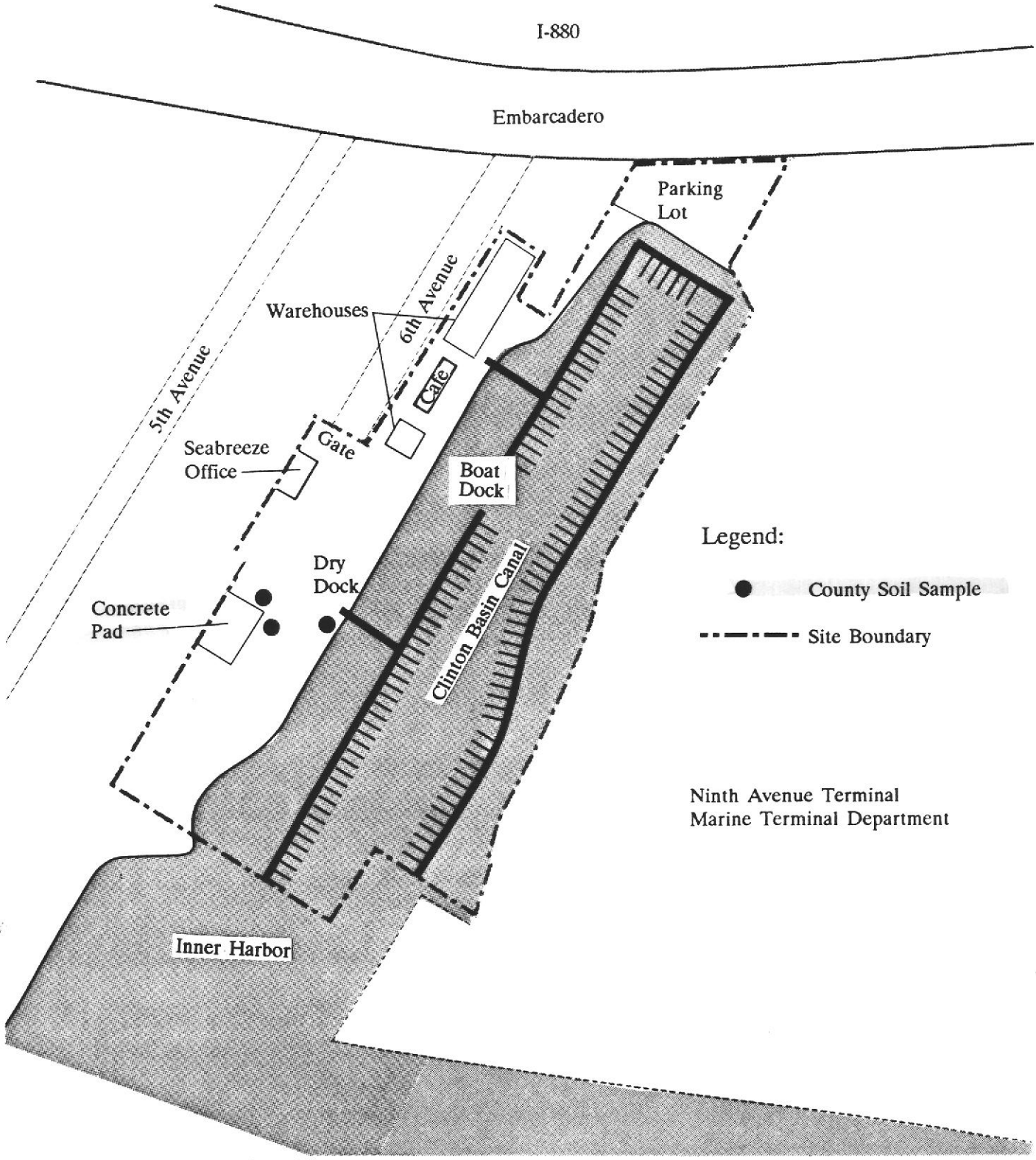
On 28 July 1988, Mr. Levi of Alameda County inspected the site and collected three soil samples for analysis. The samples were collected at a depth of three to six inches from the ground surface from the central portion of the site as shown in Figure 2 (BASELINE communication with Ariu Levi, Alameda County Hazardous Materials Division, 7 June 1989). The samples were analyzed for the following total metals using EPA Method 3020 for sample preparation: cadmium (Method 7130), chromium (Method 7190), copper (Method 7120), lead (Method 7420), nickel (Method 7520), and tin (atomic emission spectroscopy). The analyses were performed by the Alameda County Environmental Health Laboratory.

Two of the three soil samples contained copper in concentrations exceeding the DHS criteria for the definition of hazardous wastes contained in Title 22. The Total Threshold Limit Concentration (TTLC) for copper is 2,500 mg/kg according to Title 22; the copper concentrations in the two samples exceeding the TTLC were 33,000 and 4,000 mg/kg, respectively. The remaining metals which were analyzed for in the collected samples did not exceed the TTLC concentrations, but were present above laboratory detection levels.

Tin was identified in the soil samples. However, there is no TTLC for tin in Title 22. Because tri-butyl tin has been used as extensively as copper-based paint for the prevention of barnacle growth, it is possible that the site soils may contain some level of this chemical. Tri-butyl tin is extremely toxic to marine organisms, causing neurotoxicity, retarded regeneration, and deformity in crustaceans at levels equal to or greater than 0.5 micrograms per liter (personal communication, Pesticide Hotline, June 8, 1989). The concentrations of total tin in the collected samples ranged from 600 to 5,000 mg/kg. The use of this chemical in marine paints has been generally discontinued and will probably by prohibited by Environmental Protection Agency regulations to be promulgated in September of this year (BASELINE communication with Pesticide Hotline, 8 June 1989). No regulatory limits currently exist for tri-butyl tin.

APPROXIMATE LOCATION OF COUNTY SOIL SAMPLES

Figure 2



Seabreeze Yacht Center
Oakland, California

Source: BASELINE Communication with Ariv Levy, Alameda County Hazardous Materials Division 8 June 1989.

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III. CHARACTERIZATION OF CONTAMINATED SOILS

A. Methods and Procedures

Soil sampling to be conducted on-site will have two objectives: 1) to further quantify the lateral and vertical extent of soil contamination discovered by the County, and 2) to quantify the lateral and vertical extent of chemical compounds that may be present in soils elsewhere on-site. During site reconnaissance BASELINE determined that soil samples should be collected from the dry dock area and from the parking lot which had formerly been a dry dock. The lateral extent of soil contamination discovered by the County will be determined by sampling downgradient from the approximate locations of the County sample sites (see Figures 2 and 3). Vertical quantification will be achieved by resampling in approximately the same locations as the County and sampling at specific intervals (specified below) until the soil-groundwater interface is reached (see Figures 2 and 3).

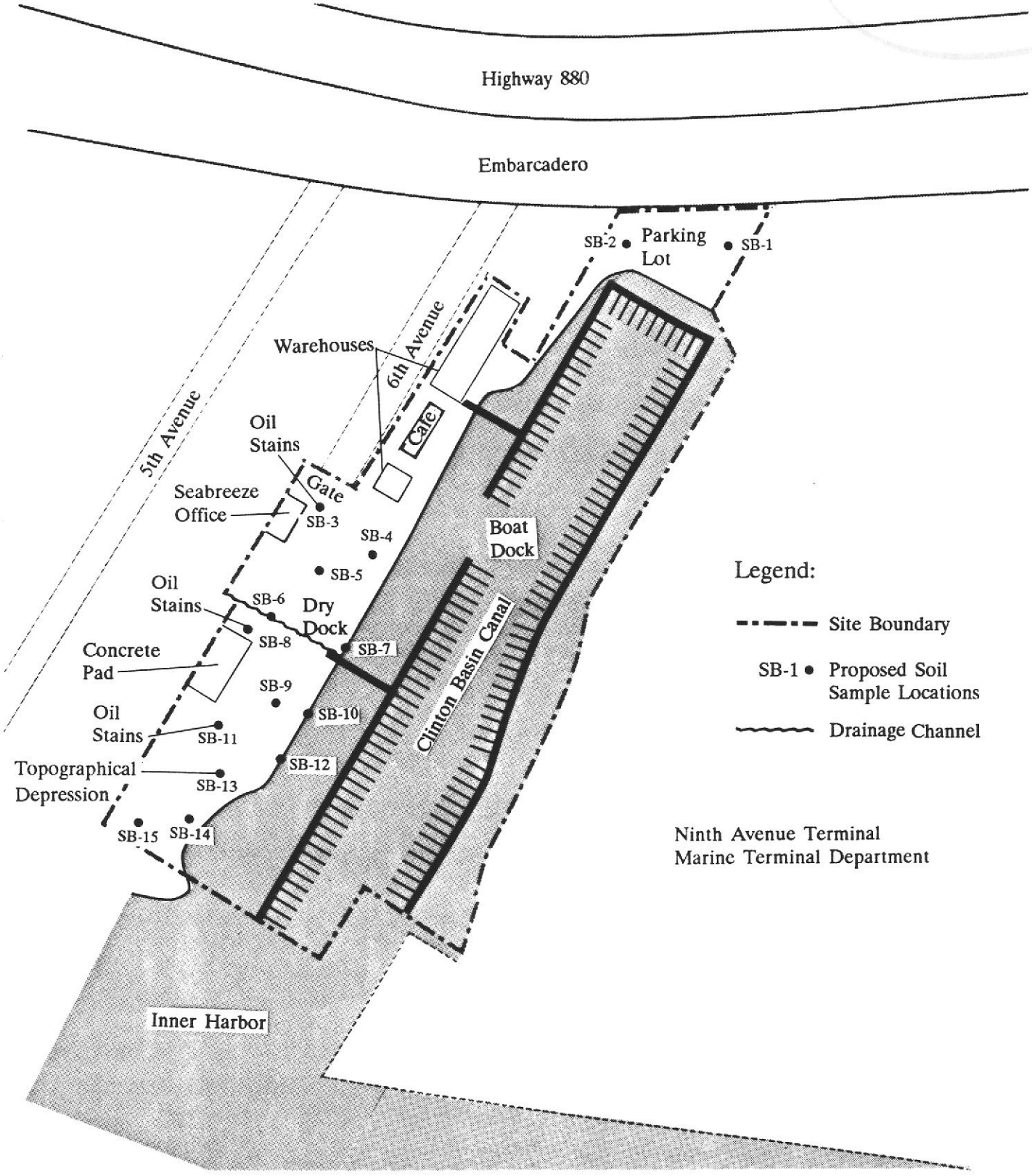
To quantify possible presence of metals and volatile organic compounds in the dry dock area samples will be collected at all locations where stained soils were observed; along the mud in Clinton Basin Canal near a drainage channel on-site; at areas of depression where water might pool; and in boat dry dock berths (see Figure 3). Two samples will be collected from the parking lot. All samples will be collected at a depth of six inches, at one foot, and subsequently at two-foot intervals until the soil-groundwater interface is reached. Figure 3 shows proposed soil sampling locations.

Sample collection will follow state and federal guidelines (Appendix A), and all work on-site will be conducted according to a site-specific health and safety plan (Appendix B). BASELINE staff member William Scott will collect the soil samples on-site. Soil boring will be completed by AquaScience, a subcontractor to BASELINE based in San Ramon, California. Subsequent to drilling and sampling at each boring location, the boring will be grouted. No open bore holes will remain in place at the end of any day when drilling has occurred. All samples will be refrigerated and brought to the laboratory for analysis under strict chain-of-custody (Appendix A and C).

The analytical laboratory will be Curtis and Tomkins, located in Berkeley, California. This laboratory is certified by the State of California to perform the required chemical analyses. All samples collected will be analyzed for the metals detected by the County. Samples collected at the soil-groundwater interface will also be analyzed for volatile organic compounds to determine whether use of solvents on-site may have

PROPOSED SOIL SAMPLING LOCATIONS

Figure 3



Seabreeze Yacht Center
Oakland, California

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affected soils and could potentially constitute a threat to the groundwater. Samples collected in areas of stained soils will be analyzed for metals and for oil and grease. The following methods specified by the EPA will be used to analyze soil samples:

Cadmium - Method 7130
Chromium - Method 7190
Copper - Method 7210
Lead - Method 7420
Nickel - Method 7520
Tin - Atomic Emission Spectroscopy
Volatile Organic Compounds - Method 8240
Oil and Grease - Method 503D and E.

B. Security

A chain link fence surrounds the property, and the gate leading into the property will be locked after working hours. Any soil cuttings and rinse water generated from sampling and equipment decontamination will be placed in 55-gallon drums to be stored on-site. Each drum will be labeled and locked.

C. Management of Soil Cuttings

All drill cuttings will be stored on-site in 55-gallon drums until laboratory analyses are completed. Drums will be marked to identify the sample numbers which correspond to the drill cuttings contained in each drum. Once analyses are completed each drum will be properly labeled as hazardous or non-hazardous according to regulations set forth in the EPA 40 Code of Federal Regulations (40 CFR), Parts 260 through 280 and Title 22. The disposition of each drum will also be determined in conformity with these regulations. Once appropriate disposition has been determined, BASELINE will subcontract the work of drum removal and disposal to Hydro-Chem Services, Inc., located in San Francisco, California. Transportation of hazardous wastes is conducted according to the above-referenced regulations and in accordance with the Department of Transportation regulations contained in 49 CFR and Title 22. All hazardous wastes will be transported according to hazardous waste manifest procedures outlined in 40 CFR and Title 22.

SAMPLES - Cd, Cr, Pb, Ni, Sn

VOC

IV. CHARACTERIZATION, REMOVAL, AND DISPOSAL OF ON-SITE DRUMS AND CONTAINERS

A. Description of On-site Drums and Containers

During the site reconnaissance on 9 August 1989, Seabreeze employees identified the following drums and containers, present on-site[1]:

- Nine 55-gallon drums contained paint.
- One 55-gallon drum contained crank case oil.
- Two 55-gallon drums contained urethane foam.
- One 55-gallon drum contained gasoline.
- Five 55-gallon drums contained waste oil.
- One 55-gallon drum was labelled as containing carboxymethyl cellulosis.
- Seven 55-gallon drums contained grease.
- One 55-gallon drum contained water.
- Fourteen 55-gallon drums were empty.
- About thirty 5-gallon containers contained paint.
- About ten 250-ml bottles contained hydrochloric acid.
- About twenty-five less-than-five-gallon containers contained paint.
- About twenty less-than-five-gallon containers contained sealing compound.
- Two 5-gallon buckets contained gasoline.
- Two 5-gallon containers contained an unknown substance.
- One 5-gallon container contained pinion grease.
- About ten containers were observed to be empty, but had contained motor oil.

B. Characterization of Drum and Container Contents

BASELINE will field screen the on-site drums and containers using standard HazCat methods. Unused product containers and drums will be identified by labels. If HazCat procedures are inconclusive, the drum contents will be sampled and submitted to the laboratory for analysis. After sampling, all 55-gallon drums

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[1]Two 55-gallon drums, one containing hydraulic oil and the other containing motor oil, were described as belonging to one of the employees, and it was indicated that these drums would be removed immediately by the owner of the drums.

will be fitted with individual locks and remain on-site pending the results of the analytical analyses. Smaller containers will be secured in overpack drums according to compatibility. BASELINE staff members Marta Williams and Teresa Anaya will assist Hydro-Chem in characterizing on-site drums and containers.

C. Removal and Disposal

Once analyses are completed and all drum/container contents have been identified, labels will be applied and disposal will be carried out by Hydro-Chem. The applicable regulatory guidelines, previously cited in the discussion of drill cutting disposal, will be followed.

V. CHARACTERIZATION OF GROUNDWATER CONTAMINATION

Characterization of groundwater contamination is tied to the analytical results of soil sampling. Wherever soil contamination has reached the soil-groundwater interface, further investigation to determine whether groundwater has been contaminated will be required. At present, it cannot be determined whether a groundwater investigation will be warranted on the site. The documentation discussed in the following "Reporting" section of this work plan will include recommendations for specific groundwater investigation activities which will be based on the results obtained from the soil sampling activities on-site.

ok

SLIC site

VI. REPORTING

After receipt and evaluation of the analytical results for collected soil samples BASELINE will submit a preliminary report to the Port detailing the laboratory results, documenting all soil sampling activity, and describing any activities undertaken with regard to disposal of drums, containers, drummed drill cuttings, and decontamination rinse waters located on-site. The report will include specific recommendations and provide a schedule of activity for a groundwater investigation at the site, if soil sample analytical results indicate potential contamination of groundwater has occurred. Upon completion of groundwater investigations, the preliminary report would be revised and submitted to the County as a final report documenting all remedial investigative work that has occurred on-site. All reports will be signed by BASELINE's principal, Yane Nordhav, a registered geologist, whose qualifications are provided in Appendix D of this work plan.

provide copy of prel. investigation report to county

VII. PROPOSED SCHEDULE

After work plan approval from the County, BASELINE will begin work on-site immediately upon notification from the Port. Soil sampling activity will require approximately two weeks. Sample analysis requires approximately three weeks. Screening and analysis of drums and containers on-site will be conducted concurrently and should also be completed by the fifth week of the investigation. Disposal of drums and containers requires approximately two additional weeks. By the eighth week the draft preliminary report will be submitted to the Port. As soon as the Port has commented on the draft, the report can be finalized and submitted to the County within one week. The details and schedule for any groundwater investigation which may be required will be specified in the preliminary report.

SAMPLING PROCEDURES

SOILS

1. In-place soil samples are collected with a stainless steel corer, fitted with a 6-inch brass liner. The corer is driven into the ground by a slide hammer. The brass liner is removed from the steel corer, capped with aluminum foil and a plastic cap,t aped with masking tape, placed in a zip-lock bag, and iced prior to delivery to the laboratory for analysis. Proper chain-of-custody and sample labeling procedures are followed.

2. All sampling equipment is decontaminated with tri-sodium phosphate (TSP) and deionized water prior to collection of each sample.

3. In-place soil samples may also be collected during drilling activities. The samples are collected with a California Modified sampler (2-inch diameter) fitted with 6-inch brass sleeves. The sampler is driven into the ground by a 140-pound hammer falling 30 inches. The samples are handled similarly to the procedures described above and the equipment is decontaminated in the same fashion.

DRUMS AND CONTAINERS

1. Liquid samples are collected using glass pipets, drum thief, liquid sampler. Solids are collected using spade or dipper. Samples are transferred to glass containers. Lids will be Teflon-lined. In the case of strong bases, hydrofluoric acid or phosphoric acid, Teflon sample equipment will be used.

2. Usually, sample equipment is disposed in the drum being sampled after each sample. If decontamination is required, the solvent to be used will be determined based on the characteristics of the waste as determined by HAZ CAT procedures.

3. Volatile samples are collected in 40 ml vials. Other samples are collected in liter containers.

4. Photosensitive samples are stored in amber sample containers.

5. All field-determined HAZ CAT information will be transferred to the laboratory along with the samples.

6. Sample labeling and transporting follows the same procedures outlined for soil sampling.

BASELINE Environmental Consulting
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Emeryville, CA 94608
(415) 420-8686

SITE SAFETY PLAN

Project No.: S9-139

Field Activities Date:

Client: Port of Oakland

Address: 77 Jack London Square, Oakland, CA

Contact Person: Michele Heffes

Telephone No.: (415) 839-2656

Job Location: 280 6th Avenue, Oakland, CA

Project Description: Characterization of soil contamination at Seabreeze Yacht Center. Soil sampling (drilling to be done by Aqua Science of San Ramon, CA). Oversight of sampling of drums and containers (sampling to be conducted by Hydro-Chem Services, San Francisco). Drums may contain waste oil, paint, solvents. Both subcontractors will submit proof of site safety plan and employee training before work, but plans will not be evaluated by Baseline.

Project Manager: Marta Williams

Site Health & Safety Manager: Irene Kan

Site History: Site has been a boat yard since early 1900s. Alameda County Hazardous Materials Division sampled soil and found hazardous waste levels of copper and high levels of nickel, tin, and lead. County requested characterization of site, which is owned by Port.

CHEMICAL HAZARDS

CHEMICAL NAME	DESCRIPTION	HEALTH & SAFETY STANDARDS	PERSONS EXPOSED* AND POTENTIAL ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE
Tri-butyl tin	Marine paint	TWA-0.1 mg/m^3	Inhale, with heat will generate chlorine gas	Respiratory arrest, irritation
Lead	Inorganic in dust and soil	0.05 mg/m^3 - use high efficiency filter with respirator	Inhale, ingest, dermal	Usually long term: neurologic anemia, weight loss
Solvents	Can be carcino-genic; specific type unknown, probably volatile	At over 5 ppm above background, use air purifying respirator with organic vapor cartridge	Inhale, dermal	Dizzy and dis-oriented. Long term can be carcinogenic
Copper	In dust on-site	1 mg/m^1	Inhale, dermal, ingest	Long term: liver, kidney damage. Respiratory irritant
Nickel	In dust on-site	10 hr. TWA (NIOSH) 15 $\mu g/m^3$ 1 mg/m^3 (ACGIH)	Inhale, dermal, ingest	Can cause allergic reaction. Long term: possible carcinogen

* Contractor and samplers.

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Physical Hazards: Fire, exploding drums, trip, possible cuts from scrap metal an debris on-site, possible injury from heavy equipment (e.g., drill rig).

Personal Protective Equipment Required: Tyveks, nitrite gloves, safety boots, safety glasses, first aid kit, air purifying respirator with high efficiency filter and organic vapor cartridge (for use during drum and container and soil sampling), hard hat, portable eye wash.

Air Monitoring Strategy (including action levels): Monitor drum area and drum openings before and during sampling. HNU - greater than 5 ppm, use respiratory (during soil and drum and container sampling); LEL meter - at greater than 20% LEL, stop work until return to less than 20%.

Site Control Measures: Store soil cuttings and decontaminated rinse water and contaminated personal protective gear (e.g., Tyveks) in labeled, locked drums. Arrange for disposal of same upon receipt of lab analyses for corresponding samples. Underground Service Alert will be contacted to get clearance before sampling. Site is fenced and gate will be locked during nonworking hours. Public will be restricted from sampling areas during sampling. All soils borings will be grouted after samples are collected. Only persons with hazardous waste, OSHA-required trianing will be involved in sampling. Drinking water located at Seabreeze warehouse and cafe. Clear area, decontaminated area will be designated. Copy of Site Safety Plan will be sent to subcontractors: 1) Aqua Science; 2)Hydro-Chem.

Decontamination Procedures (personal and equipment): Steam clean drilling augers between each boring, decontaminate soil sampling equipment with TSP, rinse equipment with deionized water. Contain rinse waters in temperature basin, store in labeled, locked drum. Dosposable sampling equipment will be stored in labeled, locked drum. Disposaable personal protective gear will be placed in plastic bag in locked drum end of each day. Boots, respirators, safety glasses wash with TSP and rinse. Rinse water stored in locked drum. Wash hands before leave site.

Hospital/Clinic: Peralta Hospital

Phone: (415) 451-4900

Hospital Address: 450 30th Street, Oakland, CA

Paramedic: 911

Fire/Police Dept.: 911

Emergency Procedures: Notify Yane Nordhav or Irene Kan in emergency: (415) 420-8686.

Prepared by: Marta Williams

Reviewed/Approved by: Irene Kan

Date:

Date:

Read by:

Date:

Read by:

Date:

Read by:

Read by:

BASELINE Environmental Consulting
5900 Hollis Street, Suite D
Emeryville, CA 94608
(415) 420-8686

See page 4 for map to hospital.

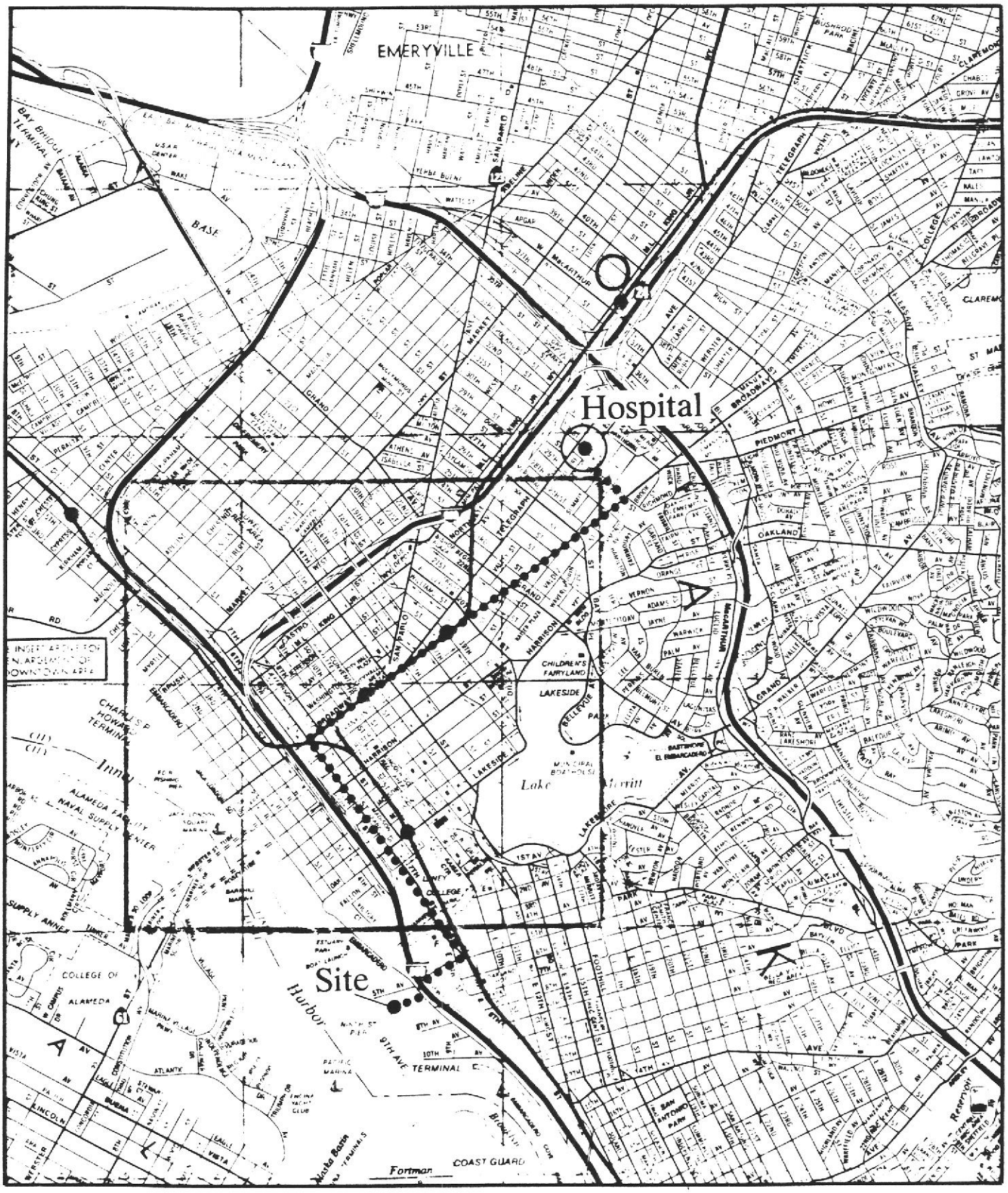
Hospital/Clinic: Peralta Hospital **Telephone No.**: (415) 451-4900

Hospital Address: 450 30th Street, Oakland, CA

Directions: Proceed north on 5th, west on 7th, north on Broadway, and west on 39th.

EMERGENCY ROUTE TO HOSPITAL

Figure 4



Seabreeze Yacht Center
Oakland, California

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APPENDIX C

CHAIN-OF-CUSTODY FORM

BASELINE
5900 Hollis Street , Suite D
Emeryville, CA 94608
(415) 420-8686

CHAIN OF CUSTODY RECORD

Turn-Around Time _____
Lab _____
Contact Person _____

Project No.	Project Name and Location	Analysis	Remarks	Detection Limits
Samplers: (Signature)				

No. Station	Date	Time	Media	Depth	Compo-sites	No. of Con-tainers	Station Location

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Condition of Samples upon Arrival at Laboratory:
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks :
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	

APPENDIX D

STATEMENT OF QUALIFICATION

YANE NORDHAV

Yane Nordhav is the principal of Baseline Environmental Consulting. She is a registered geologist in California with a Masters of Science degree in geology. She has more than twelve years of experience in the environmental and hydrogeology fields. She is the principal-in-charge for BASELINE projects related to hazardous materials management, including soil and groundwater investigations, development of remedial actions, and site assessments.

As principal investigator, she has managed and conducted groundwater investigations on major Superfund sites involving sampling activities, monitoring well installations, and delineation of extent of contaminant plumes, and quality control/quality assurance programs.

For private clients, she has been the project manager for similar investigations within the semi-conductor industry and various other industries; these investigations involved contaminant characterization, development and implementation of remedial actions, and extensive regulatory agency coordination and negotiations.

Through her work, she has developed extensive working knowledge of regulatory requirements and established working relationships with regulatory agency staff on the state and local levels.

Ms. Nordhav is the principal manager for work related to obtaining land use and TSD facility permits for industrial clients, including manufacturers using or generating hazardous wastes and major hazardous waste disposal facility owners/operators.

In addition, Ms. Nordhav has been the project manager for the preparation of major environmental documents in California, including EIRs for controversial projects, ranging from open pit mines, hazardous waste disposal facilities, and housing projects. She was the project manager for the Homestake McLaughlin Gold Mine EIR/EIS, which received the 1983 award from the Association of Environmental Professionals as the Outstanding Environmental Document of the year.

Professional Registrations

Registered Geologist, California No. 4009

Registered Environmental Assessor No. 722

Professional Affiliations

Association of Engineering Geologists, San Francisco Chapter

Association of Women Geoscientists

Association of Environmental Professionals

Presentations and Publications

"The Long Journey from Discovery to Clean-Up of Superfund Sites", presented at the Annual Meeting of Association of Engineering Geologist, Boston, MA, 1984; published in the Bulletin of the Association of Engineering Geologists, Vol. 12:2, May 1986.

"Closure and Clean-up of Underground Storage Tanks"; a one-day training course presented at HAZMACON 1987 for Association of Bay Area Governments and to local implementing agencies throughout California for the State Water Resources Control Board.