8-10-98

WORK PLAN:
DEMOLITION AND REMOVAL OF USTs & AGTs
PROJECT #150-504B

16301 E. 14th Street
San Leandro, California

PREPARED BY ENVIRONMENTAL BIO-SYSTEMS, INC.
FOR
MRS. ANNE MARIE HOLLAND TIERS,
EXECUTOR OF THE ESTATE OF JACK M. HOLLAND, SR.

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10 August 1998

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1. INTRODUCTION

This document describes the proposed demolition of 20 above-ground storage tanks (AGTs) and the removal of eight underground storage tanks (USTs) to be conducted for Mrs. Anne Marie Holland Tiers, Executor of the Estate of Jack M. Holland (the Client) by Environmental Bio-Systems, Inc. (EBS) at 16301 E. 14th Street in San Leandro, California. The scope of work described within this document has been prepared on the Client's behalf, and will be performed in response to requests made of them from the Alameda County District Attorney's office.

The site is owned by the Client and Ms. Barbara Holland. The principal project contacts are:

Principal Client Contact - Ann Marie Holland Tiers, 1498 Hamrick Lane, Hayward, CA 94544, (510) 782-4307.

Consultant - Environmental Bio-Systems, Inc., P.O. Box 7171, San Jose, CA, (510) 429-9988, Mr. Dave A. Sadoff, R.G., C.P.G., R.E.A.

2. SCOPE OF WORK

Tasks included in this phase of work will include the following:

1. Generate and submit this Work Plan per Alameda County Health Care Services Agency (ACHCSA) and Alameda County Fire Department (ACFD) requirements.
2. Procure permits as required from the ACFD, the ACHCSA, and the Bay Area Air Quality Management District (BAAQMD).

3. Contact underground service alert (USA) to notify of intended subsurface activities at least 48 hours prior to commencement of excavating activities.
4. Generate and submit a site-specific Health and Safety Plan approved and signed by a Certified Industrial Hygienist (CIH).
5. Provide CIH-oversight site visits (3 hours a day, 6 days total) to ensure compliance with the Health and Safety Plan during project commencement.
6. Disconnect all facility power and water at meter bow/main.
7. Cold cut, load and scrap 20 ASTs and all accessible above-grade pipelines, dispensers, and fueling equipment.
8. Excavate soils, inert, and dispose of the USTs listed below (along with their reported contents):
   - three 10,000-gallon tanks used to contain gasoline 3 x gas
   - two 5,000-gallon tanks used to contain kerosene 2 x Kerosene
   - one 5,000-gallon tank used to contain diesel 1 x diesel
   - one 6,000-gallon tank used to contain diesel 1 x diesel
   - one 12,000-gallon tank used to contain stoddard solvent. 1 x stoddard
9. Collect the following soil samples from the native soil/backfill interface in compliance with Regional Water Quality Control Board (RWQCB) guidelines:
   - Three from beneath each of the 10,000 gallon gasoline USTs to be analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene and total xylenes (BTEX), methyl t-butyl ether (MTBE); three each from below the two gasoline USTs reported to have contained leaded fuel to be analyzed for total lead.
   - Three from beneath each of the 5,000-gallon kerosene USTs to be analyzed for total petroleum hydrocarbons as kerosene (TPHk) and BTEX.
   - Three from beneath the 5,000-gallon and 6,000-gallon diesel USTs (each) to be analyzed for total petroleum hydrocarbons as diesel (TPHd) and BTEX.

- Three from beneath the 12,000-gallon stoddard solvent UST to be analyzed for total petroleum hydrocarbons as stoddard solvent (TPHss) and BTEX.
- One from beneath a gasoline dispenser to be analyzed for TPHg, BTEX, and MTBE.
- One from beneath a diesel dispenser to be analyzed for TPHd and BTEX.
- One 4-point composite from the gasoline UST overburden stockpile to be analyzed for TPHg, BTEX, and MTBE.
- One 4-point composite from the kerosene UST overburden stockpile to be analyzed for TPHd and BTEX.
- One 4-point composite from the diesel UST overburden stockpile to be analyzed for TPHd and BTEX.
- One 4-point composite from the stoddard solvent UST overburden stockpile to be analyzed for TPHss and BTEX.

10. Collect pit water samples (if encountered) from each of the UST excavations. Pit water samples to be analyzed for the analytes listed above under soil sampling for the associated tank.
11. Transport all samples to a California State certified environmental laboratory accreditation program (ELAP) laboratory under chain of custody.
12. Instruct the laboratory to analyze the samples for analytes listed above using the following analytical methods:
    - TPHg using Environmental Protection Agency (EPA) Method 8015.
    - BTEX and MTBE using EPA Method 8020 (confirm MTBE using 8260).
    - Total lead using EPA Method 7421.
    - TPHd using EPA Method 8015.
    - TPHss using EPA Method 8015.
13. Load all 8 USTs onto flatbed trailers and transport to a properly licensed recycling/disposal facility.

14. Bench and slope excavation sidewalls to inhibit collapse pending further potential excavation or remediation.
15. Provide on-site security guard during non-work hours of project.
16. Construct a property perimeter berm using clean overburden soil (if available), per the request of the ACDPW.
17. Prepare a report summarizing the work performed and present it to the Client. The report will contain descriptions of field activities, laboratory analytical reports, scaled drawings, conclusions and recommendations.

3. SITE LOCATION AND DESCRIPTION

3.1. Location and Use

The Site encompasses approximately 3 acres in a mixed commercial and residential area in San Leandro. The Site is bounded by a Little League baseball field to the south, by Edendale Elementary School to the west, and by used auto dealerships to the north and east.

The Site was used as a bulk fuel storage, blending, and retail facility approximately between 1960 and the mid-1980s. A building in the southwest portion of the lot has historically been used for vehicle repair, and is currently used for storage and maintenance of equipment by San Leandro Crane.

4. PREVIOUS ENVIRONMENTAL WORK

1990

Crosby and Overton, Inc. (C&O) drilled and sampled five exploratory soil borings near the two diesel USTs. Soil samples collected from the borings were found to contain up to 25,000 milligrams per kilogram (mg/kg) TPHd. Ground water was first encountered at approximately 15 feet below ground surface (bgs).

February 1996

Compliance & Closure, Inc. (CCI) directed the locating of eight USTs at the Site. CCI reportedly located three gasoline, two kerosene, two diesel, and one stoddard solvent UST.

April 1996

CCI installed and sampled three ground water monitoring wells. Soils encountered during drilling activities were described as silty clay, thin beds of silty sand and sand to 18 feet bgs.

Soil samples collected during drilling of the wells reportedly contained up to 4,400 mg/kg TPHg and 8,200 TPHd. These soil samples were also found to contain up to 0.024 mg/kg 1,4-dichlorobenzene and 0.4 mg/kg methylene chloride.

Ground water samples collected from the wells were found to contain up to 33,000 micrograms per liter (µg/L) TPHg; up to 12, 83, 22 and 160 µg/L BTEX, respectively; up to 9,700 µg/L TPHd; up to 41,000 µg/L total recoverable petroleum hydrocarbons (TRPH); and up to 3.1 µg/L 1,2-dichlorobenzene.

July 1996

CCI conducted quarterly monitoring of the ground water wells. Ground water samples were found to contain up to 1,400 µg/L TPHg; 17, 5.6, 7.6 and 32 µg/L BTEX, respectively; and 4,600 µg/L TPHd.

October 1996

CCI conducted quarterly monitoring of the ground water wells. Ground water samples were found to contain up to 7,300 µg/L TPHg; 16, 8.9, 20 and 15 µg/L BTEX, respectively; and 14,000 µg/L TPHd.

January 1997

CCI conducted quarterly monitoring of the ground water wells. Ground water samples were found to contain up to 2,600 µg/L TPHg; 6.4 µg/L benzene; 44 µg/L toluene; and 2,800 µg/L TPHd.

April 1997

CCI conducted quarterly monitoring of the ground water wells. Ground water samples were found to contain up to 2,700 µg/L TPHg; 16, 8, 10 and 25 µg/L BTEX, respectively; and 500 µg/L TPHd.

5. PERMITS

EBS will procure applicable permits from the ACHCSA by filing an Underground Tank Closure Plan and State of California UST Permit Application Forms A and B. Permits will also be obtained from the ACFD, and the BAAQMD prior to project commencement.

An asbestos survey will be conducted on all structures slated for demolition by a properly licensed asbestos inspector. Copies of the permits will be maintained on-site at all times during the course of the project.

6. FIELD PROCEDURES

The project will be divided into two main tasks, AGT demolition and UST removal. AGT demolition will be performed first to increase available work area and remove obstacles to facilitate the subsequent task. The USTs will be excavated and removed immediately following demolition of the AGTs. All tasks are being scheduled to take place prior to the first day of class at Edendale School (14 September 1998).

6.1. AGT Demolition

EBS has contracted Zaccor Corporation Inc. (ZCI) of Alameda, California (contractor's license #A-Haz 478799) to demolish and scrap the 20 on-site AGTs. Each AGT will be inerted to a lower explosive limit (LEL) of 0 per ACFD specifications, and cut into transportable pieces using hydraulic sheers. The resulting scrap metal will be hauled off-site for recycling.

6.2. UST Removal & Disposal

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EBS has also contracted ZCI to inert and excavate the eight site USTs. Each UST will be pressure washed as necessary and inerted by addition of dry ice. All tanks will be measured to have an less than 10 percent of the LEL and a concentration of oxygen below 10 percent prior to removal.

All USTs will be properly transported under hazardous waste manifest by Ecology Control Industries (ECI) of Torrance, California and disposed of at their Richmond facility (EPA ID #CAD009466392).

The resulting excavations will remain open at the conclusion of this phase of work. The sidewalls of the pits will be sloped to decrease the chance of collapse.

6.2.1. Sampling

Soil samples will be collected from freshly exposed soil beneath the ends of each UST within two feet of the tank's bottom if water is not encountered. In the event that pit water is encountered, soil samples will be collected from the pit sidewalls at the ends of the tanks within the unsaturated zone just above water (the capillary fringe). Pit water samples also will be collected from each pit in which water is encountered.

Soil samples will be manually collected from the backhoe bucket. A wood or plastic mallet will be employed to drive a stainless steel sample tube into the soil to be sampled. The tubes will be filled with dirt to exclude head space. The ends of the tubes will then be wrapped with Teflon sheets and sealed with plastic end caps. Each tube will be labeled with a unique designation for this project and either relinquished immediately to an on-site mobile laboratory, or stored on ice in a closed insulated container to be relinquished to a laboratory at a later time. Chain of custody documentation will be initiated at the site and will accompany all samples in transit to the laboratory(s).

Water samples will be collected with a subsurface sample collection device. A one liter bottle will be loaded into the device and sealed with a spring powered stopper arm. The device will subsequently be extended into the pit at the end of a telescoping pole, placing the collection bottle below the surface of water. The collection bottle will then be remotely opened to allow water to fill it and then remotely resealed prior to retrieval from the pit. Water will be decanted from the collection bottle to fill individual sample containers. Water sample containers will include 1 liter amber bottles with threaded caps and hydrochloric acid preserved volatile organic analysis (VOA) vials with septa. All water containers will be clean and unused prior to sample collection. The sampler will be decontaminated and loaded with a fresh collection bottle between use at each tank pit.

6.2.2. Field Screening of Samples

All samples will be field screened using a photoionization detector (PID). The Thermo Environmental Instruments, Co. Model 580D PID to be used for this purpose will be calibrated at the beginning of each day of use to a 100 part per million (ppm) isobutylene standard (one ppm is basically equivalent to 1 mg/kg).

Approximately 50 to 100 grams of soil will be collected from various locations during excavation, and from soil immediately adjacent to the locations of soil samples to be submitted for laboratory analysis. These 50 to 100 gram samples will be sealed within plastic bags labeled with a unique designation for the project and allowed to remain undisturbed for at least 20 minutes. The PID will then be used to measure the resultant accumulation of vapor in the head-space within the bag. The maximum value attained for each such sample will be recorded on a field log.

7. SAMPLE ANALYSES

Soil samples will be analyzed for some or all of the following constituents according to the former contents of the USTs from beneath which they were collected:

- TPHg using EPA Method 8015.
- BTEX and MTBE using EPA Method 8020 (confirm MTBE using 8260).
- Total lead using EPA Method 7421.
- TPHd using EPA Method 8015.
- TPHk using EPA Method 8015.
- TPHss using EPA Method 8015.

Analysis will be performed by Mobile Chem Labs, Inc. of Lafayette, California (MCL). This laboratory is accredited through the California State Department of Toxic Substances Control environmental laboratory accreditation program (ELAP) to perform the indicated analyses.

Minimum laboratory detection limits for the above analytes will be 1 mg/kg for TPHg and 5 µg/kg for BTEX. Detection limits may be raised due to matrix interference by other compounds present and/or high levels of analytes. All changes in detection limits will be documented on the laboratory reports.

8. DOCUMENTATION

A final report documenting the observations, results, conclusions, and recommendations of the project will be prepared and submitted to the client within 30 days of the completion of the field work. Interpretations of the site conditions and the results of analyses will also be provided. Documentation will include scaled diagrams, logs of soil types encountered, copies of the chain of custody forms, laboratory reports, tabulated data, and interpretative figures as needed.

9. WORK ITINERARY

The following time line is anticipated for this phase of work:

- 18 August 1998: Submit Work Plan to ACFD and ACHCSA.
- 17 August 1998: Submit Health and Safety Plan to ACFD and ACHCSA.
- 24 August 1998: Begin site prep work (cut ASTs to allow for removal of contents).
- 31 August 1998: Begin AST removal.
- 7 September 1998: Begin UST removal.
- 11 September 1998: Demobilize equipment, conclude project.

This schedule is subject to revision. The ACFD and ACHCSA will be apprised of any such changes as far in advance as feasible.

10. LIMITATIONS

The project cost is based upon information and service rates acquired to date. Should any significant factor during project progression be other than at the time of this proposal, EBS reserves the right to adjust the charges in a reasonable manner. The maximum liability of EBS for any reason attendant to the services provided shall not exceed $250,000.00.

In the event of non-payment of fees as outlined within this proposal, EBS may cease work, and/or withhold documentation and information gained during work progression until full compensation has been received. Under such circumstances, EBS will be held harmless by the client and/or tenants or lessees of the client, and the client will be held responsible for all costs incurred as a result of the stoppage of work.

EBS will contact Underground Service Alert to mark utilities on adjoining public lands. The use of a private utility locator to mark on-site utilities is not included in the scope of work, but may be arranged for an additional fee at the Client's request. It is the responsibility of the Client to mark all subsurface utilities, improvements, structures, or easements in the proposed work area. EBS will not be liable for any damages to underground structures as a result of subsurface activities while excavating in locations which the Client has not disapproved prior to excavation (or which have been cleared by a private utility locator if such service is added prior to commencement), and which are not within 3 feet of any utilities clearly marked by USA or private locator prior to excavation.

All regulated waste materials generated (if any) during the performance of this project not specifically addressed in this proposal will remain the property of the Client to be disposed of properly. The disposal of liquids referenced to in this proposal applies to fluids acceptable to the Client selected disposal/recycling facilities. All other disposal requested by the Client to be arranged for at additional charge.

The Client will be must be available to sign all uniform hazardous waste manifests at the time the work is performed. All manifest related standby delays will be billed to the Client at additional cost.

The conclusions and recommendations in the report will be developed in accordance with generally accepted standards of current environmental practice in California. These recommendations are time-dependent and should not be considered valid after a 1-year period from the issue of the report. After 1-year from the issue of the report, site conditions and recommendations contained within the report should be reviewed.

The study will be performed solely for the purpose of evaluating environmental conditions at the site. No engineering or geotechnical references will be implied or should be inferred.

Environmental Bio-Systems, Inc. is not liable for the discovery, documentation, or other consequences associated with obscured or otherwise not readily visible conditions encountered during any personal observations documented by staff and/or included in the report.

The project will be performed, and the report will be prepared for the sole use of our client, Ann Marie Holland Tiers, Executor of the Estate of Jack M. Holland. The report and the findings contained therein shall not be disclosed to nor used by any other party without the prior written consent of Environmental Bio-Systems, Inc. It is the responsibility of the client to convey all data, conclusions and recommendations to regulatory agencies and other parties, as appropriate.

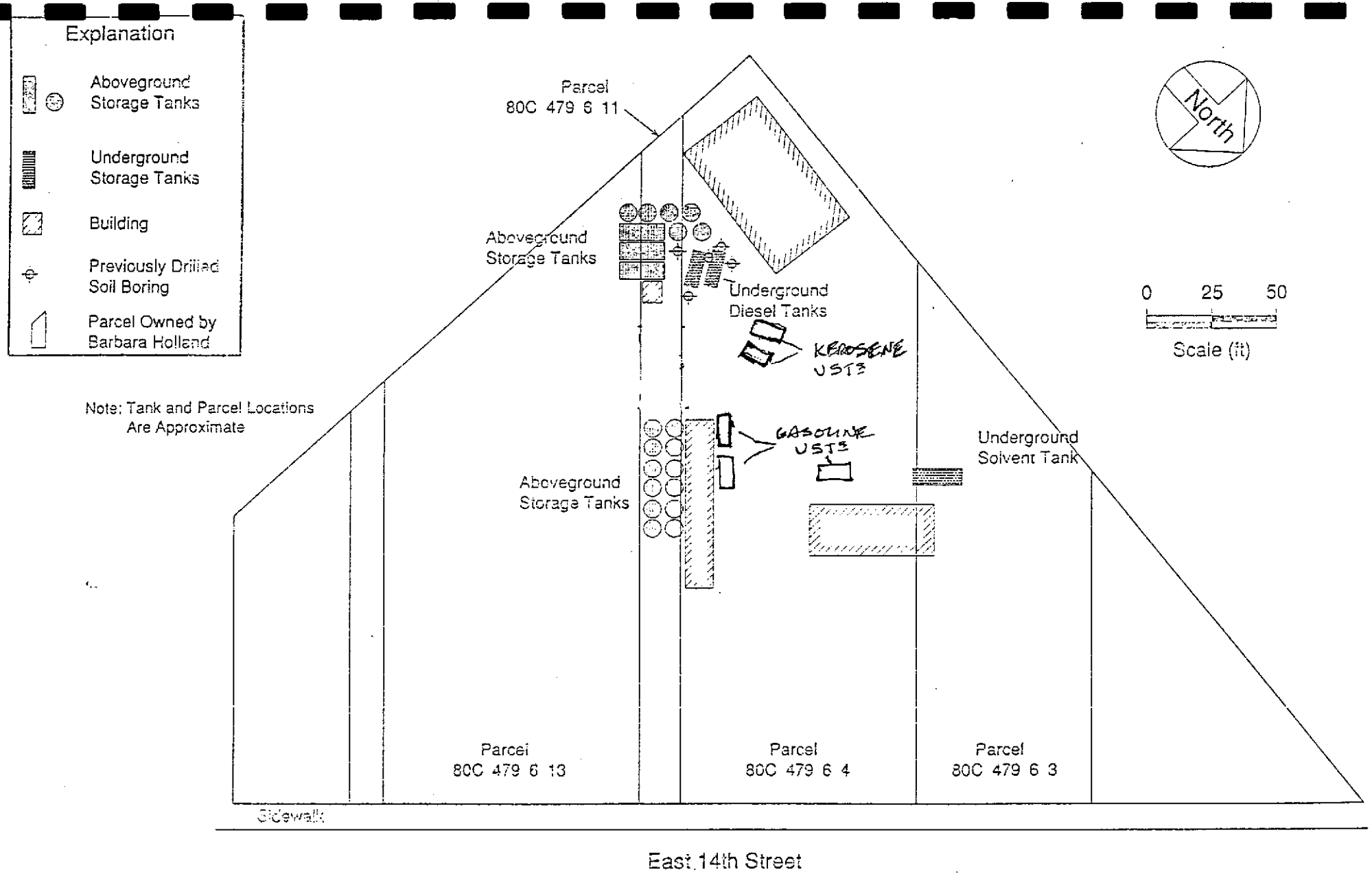
All recommendations made will be professional opinions that our firm has endeavored to provide with competence and reasonable care. We are not able to eliminate the risks associated with environmental work. No guarantees or warrants, express or implied, are provided regarding such recommendations.

11. REFERENCES

Compliance & Closure, Inc. Summary of Environmental Investigation Conducted at Jack Holland Sr. Oil Company Property, East 14th Street, San Leandro, California, 4 June 1998.

APPENDIX A:

FIGURES



ENVIRONMENTAL BIO-SYSTEMS, INC.	DATE: 7/1/98	FIGURE 1: SITE MAP
	DRAWN BY: DAS	Map Source: Cambria, Figure 1, 6/4/93
	SCALE: 1"=50'	HOLLAND OIL 16301 EAST 14th STREET SAN LEANDRO, CALIFORNIA