

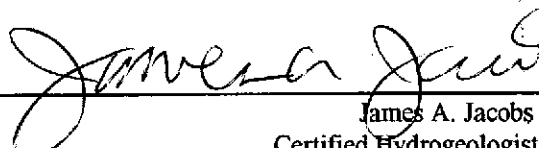
Alameda County  
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Environmental Health

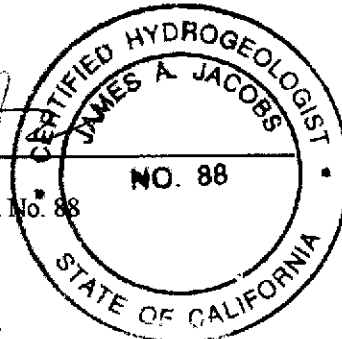
**WORK PLAN: ADDITIONAL**  
**SUBSURFACE INVESTIGATION**  
**GROUND WATER MONITORING**  
**WELL INSTALLATION**

**Estate of J. Holland Sr.**  
**16301 East 14th Street**  
**San Leandro, California**

**Project #648**

**PREPARED BY ENVIRONMENTAL BIO-SYSTEMS, INC.**  
**FOR**  
**MS. ANNE MARIE HOLLAND**

  
James A. Jacobs  
Certified Hydrogeologist No. 88



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**March 3, 2003**

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## **1. INTRODUCTION**

Environmental Bio-Systems, Inc. (EBS) has been retained by Ms. Anne Marie Holland (the client) to prepare this workplan for an additional subsurface exploration and ground water monitoring well installation and sampling at 16301 East 14th Street in San Leandro, California (the site). A site location map and site map are included as Figures 1 and 2 of Appendix A.

This work plan has been prepared pursuant to a request by the Alameda County Health Care Services Agency (ACHCSA). The proposed scope of work is intended to provide better vertical and lateral delineation of the petroleum hydrocarbons found in soil and ground water at the site that was documented in the EBS Subsurface Exploration and Monitoring Well Installation report dated May 4, 2001. This characterization is necessary to better define the extent of the impact and the volumes of impacted soil and groundwater before a Corrective Action Plan (CAP) can be developed. In addition, EBS will propose a schedule of groundwater monitoring on the Subject Property.

The principal project contacts are:

**Client** - Ms. Anne Marie Holland, Executress, 1498 Hamrick Lane, Hayward, CA 94544, 510-782-4307.

**Consultant** - Mr. James A. Jacobs, Project Geologist, Environmental Bio-Systems, Inc., 707 View Point Road, Mill Valley, CA 94941, 415-381-5195.

### **1.1 Scope of Work**

A brief summary of major tasks encompassed in this project includes:

1. Workplan submission and approval by ACHCSA.;
2. Development of site-specific safety plan;
3. Permitting of activities;
4. Borehole utility clearance;
5. Continuously coring soil at eleven locations (designated SC45 to SC55);
6. Install two new 2-inch diameter monitoring wells (MW6 through MW7 on-site to verify on-site groundwater plume conditions.
7. Sampling pre-existing wells MW1 through MW5;

8. Analyzing soil and groundwater samples for one or more of the following analytes:
  - a. Total petroleum hydrocarbons as gasoline (TPHg);
  - b. Total petroleum hydrocarbons as diesel (TPHd);
  - c. Total petroleum hydrocarbons as kerosene (TPHk);
  - d. Total petroleum hydrocarbons as Stoddard solvent (TPHss);
  - e. Benzene, toluene, ethylbenzene and total xylenes (BTEX);
  - f. Methyl tertiary butyl ether (MTBE); and
  - g. Total oil and grease (TOG).
9. Review the data and prepare a report of the findings, including information obtained during the quarterly groundwater monitoring;
10. If required by the regulator, drill additional borings (SC58, SC59 and SC60) and convert into 2-inch diameter wells (MW8, MW9 and MW10) on the adjacent Edendale School.
11. Have meetings and discussions with the client, regulators, planners, and others to determine the future use and site closure requirements of the property; and
12. Based on the future use of the property and the regulatory action levels for site closure, develop a Corrective Action Plan (CAP) to address and evaluate various remedial options that will move the site toward the goal of site closure.

## **1.2 Previous Environmental Work**

### **1990**

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

**February 1996**

Compliance & Closure, Inc. (CCI) directed the location 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 well drilling activities reportedly contained up to 4,400 mg/kg total petroleum hydrocarbons as gasoline (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 ( $\mu\text{g/L}$ ) TPHg; up to 12  $\mu\text{g/L}$  benzene, 83  $\mu\text{g/L}$  toluene, 22  $\mu\text{g/L}$  ethylbenzene, and 160  $\mu\text{g/L}$  xylenes (BTEX, respectively); up to 9,700  $\mu\text{g/L}$  TPHd, up to 41,000  $\mu\text{g/L}$  total recoverable petroleum hydrocarbons (TRPH); and up to 3.1  $\mu\text{g/L}$  1,2-dichlorobenzene.

**July 1996**

CCI conducted quarterly monitoring of the ground water wells. Groundwater samples were found to contain up to 1,400  $\mu\text{g/L}$  TPHg; 17, 5.6, 7.6 and 32  $\mu\text{g/L}$  BTEX components, respectively, and 4,600  $\mu\text{g/L}$  TPHd.

**October 1996**

CCI conducted quarterly monitoring of the ground water wells. Groundwater samples were found to contain up to 7,300  $\mu\text{g/L}$  TPHg; 16, 8.9, 20 and 15  $\mu\text{g/L}$  BTEX components, respectively, and 14,000  $\mu\text{g/L}$  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/LBTEX components, respectively, and 500 µg/L TPHd.

**August-September 1997**

EBS directed Site mitigation activities. One hundred and forty three 55-gallon steel drums and approximately 60 smaller containers were inventoried at the Site. Approximately 4,636 total gallons of the contents were identified as oily water. Another 650 gallons of the drum contents were identified as oily water contaminated with halogenated constituents. Approximately 100 total gallons (two 55-gallon drums) of oily water were contaminated with PCBs. A single 55-gallon drum contained approximately 50 gallons of sodium hypochlorite. All containers and their contents were removed from the site and transported to appropriate recycling and/or disposal facilities.

Approximately 2,690 gallons of liquid and sludge was also removed from eight site underground storage tanks (USTs). All 8 USTs were subsequently excavated and removed from the site.

Approximately 5,200 gallons of liquid and sludge were removed from the 20 above ground storage tanks (ASTs). All 20 ASTs were then demolished and disposed of as scrap metal.

Two of the tanks (T2 and T3) were observed to have large holes in their bottoms. Tank T1 additionally exhibited severe pitting along its surface. A sheen was noted on ground water that was encountered in each of the 5 tank pits. Slight to moderate petroleum odor and greenish discoloration were observed in soils excavated from around each of the USTs.

A total of nine soil samples were collected from beneath USTs T1, T2, T3, T4, T5 and T6 at the air/ground water interface (approximately 10 feet bgs). Analyses of these samples revealed the presence of up to 6,900 mg/kg TPHg; up to 21, 28, 69, and 130 mg/kg BTEX, respectively up to 3,200 mg/kg TPHd; up to 9,600 mg/kg total petroleum hydrocarbons as Stoddard solvent (TPHss); and up to 11 mg/kg Pb.

Composite samples were collected from both UST overburden soil piles. The four-point composite soil sample collected from the Stoddard solvent tank stockpile was not found to contain reportable concentrations of either TPHss or BTEX. The four-point composite soil sample collected from the kerosene tank overburden was found to contain 5,200 mg/kg TPHk.

Samples were collected from accumulated water within the pits from which tanks T1 and T2 were removed. Additional water samples were taken from the remaining 3 pits that formerly held tanks T3 and T4, T5 and T6 and T7 and T8, respectively. Analyses of these samples revealed the presence of up to 78,000 µg/L TPHg; up to 1,500, 8,400, 1,900, and 14,000 µg/L BTEX, respectively; up to 1,600,000 µg/L TPHd; and 490,000 µg/L TPHss. Neither MTBE nor Pb was found in any of the analyzed water samples at levels exceeding laboratory reporting limits.

Soil overburden was placed back into the pits with the concurrence of the ACHCSA and Client agreement that further assessment and remediation would be performed as found appropriate. No soil compaction was performed at that time, per Client request.

#### **January 2001**

Forty-four exploratory soil cores and two soil borings were drilled and sampled at the site between 8 January and 11 January 2001. Soils encountered during coring and drilling typically included silty clay with minor angular clasts to approximately 3 feet bgs, at which depth gravely silty clay was encountered. Minor thin interbeds

of gravels were found in several cores at approximately 4 to 4.5 feet bgs; a fine-grained sand was encountered in several cores at approximately 8.5 feet bgs. A stiff dark gray clay was typically encountered at approximately 11.5 feet bgs, and extended to the deepest drilled depth (20 feet bgs). The depths at which each lithology change occurred were not consistent throughout the Site. Groundwater was first encountered at between approximately 9 and 11 feet bgs within the cores and borings. OVM screening of soil samples yielded between 0 and > 1,000 ppm, expressed in isobutylene equivalents.

A total of 131 soil samples were collected from the borings and analyzed for one or more of the following: TPHg, TPHd, TPHk, TPHss, BTEX, MTBE, TOG, PCBs, HVOCs, Cd, Cr, Ni, Pb, Zn, Percent Organic, Percent Total Porosity, Dry Density, and Percent Moisture Content. Soil was not sampled from core SC43. A field determination was made that soil from this core exhibited obvious indications of petroleum impact and that such impact would skew physical parameter analyses. Replacement soil core SC44 was subsequently drilled to the east of SC43 and sampled for physical parameters.

Analysis of samples from both cores and borings showed the presence of up to 13,000 mg/kg TPHG, 8,400 mg/kg TPHD, 2,900 mg/kg TPHK, 8,300 mg/kg TPHss, 61 mg/kg benzene, 35 mg/kg toluene, 240 mg/kg ethyl benzene, 1,100 mg/kg xylenes, 44,000 mg/kg TOG, and 310 µg/kg PCBs. Heavy metals were found at low levels in all but samples SC3-2' and SC6-2' where elevated concentrations of chromium and nickel were found, respectively. Results of HVOC analyses showed only low-level concentrations. None of the submitted soil samples were found to contain reportable concentrations of MTBE.

High boiling fraction hydrocarbons speciated in soil samples as either kerosene or stoddard solvent were found almost exclusively beneath single point sources of these products. Interpretations of the lateral spread of the three most prevalent contaminants found in soil samples (TPHg, high boiling hydrocarbons and TOG) show prolific impact emanating outward from around at least three source areas of



the Site. Groundwater monitoring wells MW4 and MW5 were constructed on 12 January 2001 and developed on 16 January 2001.

Groundwater samples were collected from wells MW1 through MW5 on 8 February 2001 and analyzed for TPHg, TPHd, TPHk, TPHss, BTEX, MTBE, TOG and PCBs. Results of analyses run showed the presence of up to 8,200 µg/L TPHg, 5,100 µg/L TPHss, 83 µg/L benzene, 60 µg/L toluene, 33 µg/L ethylbenzene, 110 µg/L xylenes, and 28 mg/L TOG. The highest levels of impact to groundwater by compounds of concern were found in the sample collected from well N4W 1. This sample was found to contain 8,200 µg/L TPHg; 83, 60, 33 and 110 µg/L BTEX, respectively; 5,100 µg/L TPHss; and 28 mg/L TOG. The location of this well lies nearest to, and downgradient from the known source areas identified in the EBS exploration of January 2001.

Groundwater samples from wells MW4 and MW5, located further downgradient from MW1, were found to contain low to moderate levels of contaminants. The sample collected from MW5 was, however, found to contain 9.2 µg/L MTBE. Wells MW2 and MW3, located cross gradient from the known sources, were not found to contain reportable concentrations of any target chemicals. Groundwater flow beneath the site was calculated to the northwest with a gradient of 0.007 ft/ft at the time of measurement on 8 February 2001.

## **2. WORKPLAN**

This workplan for the upcoming work has been submitted to Mr. Scott Seery, Hazardous Materials Specialist, of the ACHCSA.

## **3. PERMITS AND NOTIFICATIONS**

EBS will secure drilling permits from the Alameda County Public Works Agency prior to commencement of field activities, but after approval of the workplan by

the ACHCSA. All interested parties and regulatory agencies will be notified prior to any start of field work.

#### **4. HEALTH AND SAFETY PLAN**

A site-specific health and safety plan has been developed and included in Appendix B. The site-specific health and safety plan addresses the necessary safety procedures for anticipated hazards associated with the fieldwork during the course of the proposed subsurface exploration program. All field workers will attend tailgate safety meetings held at the beginning of each day of coring and/or drilling. The workers will indicate their comprehension of the safety plan contents by using the health and safety plan sign-in form.

#### **5. FIELD ACTIVITIES**

The scope of work contained within this work plan is intended to evaluate the vertical and lateral extent of soil and groundwater impact on site as well as off-site.

##### **5.1 Drilling**

Eleven direct push technology (DPT) soil and groundwater samples will be collected designated SC45 to SC55 (Figures 3, 4, and 5, Table 1). The samples will be collected in areas to better define the extent of contamination to 12 feet below ground surface. Off-site borings are noted: one on the ball field property (SC48), and two DPT samples (SC54 and SC55) on the school property. Two hollow stem auger boreholes (SC56 and SC57), converted to 2-inch diameter wells (MW6 and MW7) are proposed in the middle of the plume to verify conditions in the groundwater (Figure 6). Selected soil samples will be collected in borings SC56 and SC57 as these borings were designed to evaluate groundwater within the plume and the soils have been characterized in the area. Depending on the findings of SC54 and SC55, 3 optional wells on the Edendale School property are shown, if required by the regulator. The hollow stem auger drilling can be performed three to four weeks after the DPT drilling, allowing for optimum placement of the wells, and evaluation of wells on the Edendale School, if required.

**TABLE 1 – BORING AND WELL LOCATIONS**

<b>BORING NUMBER</b>	<b>LOCATION</b>	<b>PROPOSED DEPTH</b>	<b>RATIONALE</b>
<b>Direct Push Technology (DPT) probe rigs: soil and groundwater samples</b>			
SC45	15 ft. east of SC5-SC6	12 ft. bgs	Find ND line to east near tanks T7 and T8
SC46	30 ft. east of SC26-SC29	12 ft. bgs	Find ND line to east of Bldg. C
SC47	30 ft. southeast of MW3	12 ft. bgs	Find ND line southeast of monitoring well MW3
SC48 (off site; ball park)	40 ft. southeast of MW2	12 ft. bgs	Find ND line southeast of MW2
SC49 (used car lot)	25 ft. north of SC14	12 ft. bgs	Find ND line north of SC14; Dan's Auto Repair Bldg.
SC50	40 ft. north of MW4	12 ft. bgs	Find ND line along property boundary; 15 ft. west of MW1; 35 ft. north of MW4
SC51	5 ft. northwest of northern tip of Bldg A (Warehouse); 20 ft. southeast of MW4	6-8 ft To total depth in landing area (underlain by concrete)	Characterize contained soil north of Bldg. A (warehouse), southeast of MW4
SC52	10 ft north of center of Bldg A (Warehouse); 8 ft. southeast of MW4	6-8 ft To total depth in landing area (underlain by concrete)	Characterize contained soil north of Bldg. A (warehouse), southeast of MW4
SC53 (used car lot)	30 ft. northeast of MW5	12 ft. bgs	Characterize the soil and groundwater in

			the corner, north of MW5
SC54 (off site; Edendale School)	20 ft. northwest of MW4	12 ft. bgs	Find ND line northwest of MW4
SC55 (off site; Edendale School)	20 ft. west of MW4	12 ft. bgs	Find ND line northwest of MW5
<b>Hollow Stem Auger Boreholes/Wells</b>			
SC56 (MW6)	20 ft. northwest of SC5	15 ft. bgs	Characterize water concentration in plume
SC57 (MW7)	5 ft. southwest of SC35	15 ft. bgs	Characterize water concentration in plume
<b>NEXT PHASE- IF NEEDED: OPTIONAL- If appropriate to put wells on adjacent school property.</b>			
OPTIONAL: SC58 (MW8) (off site; Edendale School)	30 ft northwest of MW4	15 ft. bgs	Find ND downgradient line; Characterize water concentration in downgradient direction;
OPTIONAL: SC59 (MW9) (off site; Edendale School)	60 ft northwest of MW1	15 ft. bgs	Find ND downgradient line; Characterize water concentration in downgradient direction;
OPTIONAL: SC60 (MW10) (off site; Edendale School)	30 ft northwest of MW5	15 ft. bgs	Find ND downgradient line; Characterize water concentration in downgradient direction;

<p><b>NOTE: Off site wells are always problematic for security issues and not recommended unless required by the regulator.</b></p>			
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The elevations of the new wells, and of existing ground water monitoring wells will be measured by and the direction and gradient of ground water flow will subsequently be calculated. All work will be performed under the supervision of a California Certified Hydrogeologist.

**5.1.1 Soil Sampling**

Soil samples from the DPT probe rig will be collected using a probe-type macro-core soil sampler. Liners are constructed of PETG, an inert transparent plastic. Soil samples from the hollow stem auger rig will be collected from the borings using a California split-spoon sampler holding three stainless steel tubes. Upon removal from the sampler, the bottom ends of the tubes will be sealed with Teflon sheets and tight fitting caps. Each tube will be labeled with a unique designation for this project and stored in an insulated cooler on top of ice. A chain of custody will be generated in the field and will accompany all samples during transit to the laboratory. A photoionization detector (PID) will be on-site to measure organic vapors and for safety purposes.

A thermometer will be placed into the cooler with the samples. The laboratory representative receiving the samples will be asked to read the temperature inside the cooler, and to record it on the sample chain of custody.

At least one soil sample will be submitted for laboratory analyses from each borehole from just above the soil/ground water interface. Ground water is anticipated to be encountered at approximately 6.5 feet below ground surface (bgs). Additional soil samples from other horizons may be submitted if field observations (e.g. elevated PID readings, soil discoloration) indicate the possibility of petroleum hydrocarbon impact.

### **5.1.2 Drill Cuttings**

All soil cuttings generated during drilling will be contained within Department of Transportation (DOT) approved 55-gallon drums. Subsequent to profiling, the drums will be transported and disposed/recycled at an approved facility.

## **5.2 Well Installation**

### **5.2.1 Well Locations**

Groundwater well locations are described above in Table 1.

### **5.2.2 Well Construction**

The new wells will be constructed of 2-inch diameter PVC screen and casing. The methods of construction used will be in accordance with the standards and guidelines of the ACWD and the California Department of Water Resources.

The wells will be installed after advancing the augers to a depth of approximately 10 feet below where first water is encountered. The screened interval of the wells will be extended to approximately 2 feet above the depth at which water is encountered within the borings. Completion of the wells will include a filter pack of #2/12 or #3 sand to a depth of 1 foot above the tops of the screens, 0.5 foot bentonite clay spacers, Portland cement seal to grade, traffic boxes set in concrete, and locking well caps with a water-tight seals.

### **5.2.3 Well Development**

The new wells will be developed after allowing at least 72 hours to elapse following completion of the ground water monitoring well installation. Development of the wells will be performed using alternate surging and bailing. The wells will be purged until free of sediment or until measured parameters of pH, temperature, and conductivity have been noted to have stabilized.

### **5.2.4 Well Sampling**

Sampling of all wells (new and old) will be performed subsequent to allowing a period of at least 48 hours for stabilization following development. A field log will be maintained by the sampling technician during purging and sampling.

Observations of the presence or absence and/or thickness of free or emulsified product as well as the presence of sheen will be included on the sampling log. Other pertinent information including well recharge rates, pH, temperature, conductivity, and physical conditions at the time of sampling will also be recorded.

A minimum of 4 casing volumes will be purged from the new wells prior to collection of samples. Current wells will have a minimum of three well volumes removed prior to sampling. When periodic measurements of pH, temperature, and conductivity are found to have stabilized, a water sample will be collected from the well using a new disposable bailer. No sample will be collected for laboratory analysis from wells exhibiting measurable free product.

New wells, which fail to recharge sufficiently prior to the purging of at least 4 well casing volumes (new wells) or 3 well casing volumes (current wells) will be allowed to recover to 80% of their initial water level prior to sampling.

#### **5.2.5 Purge and Decontamination Water**

All purge and decontamination water generated during this project will be contained within Department of Transportation (DOT) approved 55-gallon drums. The drums will be labeled and stored on-site. The drums will be secured. Subsequent to profiling, the drums will be transported and disposed or recycled at an approved facility.

### **5.3 Sample Analyses**

All soil and ground water samples will be transported in a refrigerated environment by chain-of-custody procedures to Kiff Analytical, Davis California. Kiff Analytical is certified by the California environmental laboratory accreditation program (ELAP).

All samples submitted for laboratory analysis will be analyzed for the following:

- a. Total petroleum hydrocarbons as gasoline (TPHg) EPA 8015m;
- b. Total petroleum hydrocarbons as diesel (TPHd) EPA 8015m;
- c. Total petroleum hydrocarbons as kerosene (TPHk) EPA 8015m;
- d. Total petroleum hydrocarbons as Stoddard solvent (TPHss) EPA 8015m;

- e. Benzene, toluene, ethylbenzene and total xylenes (BTEX) EPA 8260B;
- f. Methyl tertiary butyl ether (MTBE) EPA 8260B; and
- g. Total oil and grease (TOG) SM5520F.
- h. Selected samples to be analyzed for semi-volatiles (8270) and PCBs, only if the sample has reportable concentration of TPHd, or the laboratory observes an individual chromatographic peak. Based upon past site analytical data, sufficient positive TPHd sample results are anticipated to warrant significant SVOC analysis.

#### **5.4 Decontamination Procedures**

All downhole drilling and sampling equipment will be cleaned using an Alconox solution, tap water rinse, and deionized water rinse prior to the drilling of each boring. All decontamination water will be stored on-site in labeled drums approved by the Department of Transportation (DOT) for this purpose.

#### **5.5 Well Survey**

The top of well casing (TOC) of the newly installed wells will be surveyed to Mean Sea Level by surveyors under the direction of a Registered Geologist. Groundwater elevations within the wells will then be calculated, and a ground water flow direction and gradient map will be generated for inclusion in the final report.



## **6. SCHEDULE AND DOCUMENTATION**

A plan has been prepared (Table 2) showing the proposed schedule of activities. A final report documenting the observations, results, conclusions, and recommendations will be prepared and submitted upon completion of field work. The report will include scaled diagrams, laboratory analytical reports, and chain of custody documentation.

**TABLE 2 – SCHEDULE OF ACTIVITIES**

<b>ACTIVITY</b>	<b>PROPOSED DATE</b>
Workplan Submission	mid March, 2003
Regulatory discussions, review, and approval	Pending approval by regulator
Prepare permits; provide notifications to all parties, approvals for off site borings/wells; mark borings, line locate borings/wells	Within 30 days of regulatory approval
2 <sup>nd</sup> Quarter, 2003: Sample existing wells (MW1-MW5); pending approval for payment by client and USTCF (cleanup fund).	Estimated May 15, 2003
Perform field work: direct push drilling	Within 60 days of regulatory approval
Send samples to lab; review results	Within 75 days of regulatory approval
Perform field work: hollow stem auger drilling; install new monitoring wells	Within 90 days of regulatory approval
Send samples to lab; review results	Within 105 days of regulatory approval
Prepare report	Within 120 days of regulatory approval
3 <sup>rd</sup> Quarter; Sample new and current wells	Estimated August 15, 2003
Submit Subsurface Investigation Report	Within 180 days of regulatory approval
4 <sup>th</sup> Quarter, Sample all wells	November 15, 2003
Prepare Corrective Action Plan (CAP)	December 31, 2003
<b>NOTE:</b> The consultant is proposing this schedule based on prompt and ongoing payments of invoices. Delays in payments may interfere with the schedule.	

## **7. CONDITIONS**

EBS will perform the stated scope of work in accordance with generally accepted standards of current environmental practice in Northern California. Conclusions and recommendations presented by EBS are time-dependent and should not be considered valid after a 1-year period from issue of the summary report. After 1 year from the issue of this report, site conditions and recommendations contained within the report should be reviewed.

The proposed study will be performed solely for the purpose of evaluating environmental conditions of the site subsurface relative to hydrocarbon impact. No engineering or geotechnical references will be implied or should be inferred.

Evaluation of the condition of the site, for the purpose of the proposed study, will be made from a limited number of observation points. Subsurface conditions may deviate away from these points. Additional work, including further study of the subsurface, can reduce the inherent uncertainties associated with this type of work.

The proposed study will be performed, and the report would be prepared for the sole use of our Client, Ms. Anne Marie 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 any and all recommendations to governmental agencies and other parties, as appropriate.

Recommendations stated in the proposed summary report will represent 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 our recommendations.

Any and all hazardous wastes generated during this work are to remain the property of the Client to be disposed of properly. It is the clients' responsibility to identify property lines and easements and subsurface obstacles. EBS is not responsible for the accuracy of any property line, easement, or other marker identified by the client.

## **8. REFERENCES**

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Environmental Bio-Systems, Inc. 1996, Subsurface Exploration, Project #119-396A, Holland Property, 16301 East 14th Street, San Leandro, California, 22 February 1996.

Norris, Robert M., and Webb, Robert W., 1976, Geology of California, John Wiley & Sons, New York.

United States Geological Survey (USGS), 1980, Topographic Map, Newark, California 7.5 minute series with 20-foot contour intervals, 1959, photo revised 1980.

Friday, March 07, 2003

Mr. Scott Seery, CHMM  
Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**RE: DISTRIBUTION LIST: Workplan and Additional Subsurface Investigation**  
Estate of Jack Holland Sr. Oil Company  
16301 E. 14<sup>th</sup> Street  
San Leandro, California

Environmental Bio-Systems, Inc. (EBS) is pleased to submit this workplan to address regulatory requirements on the Subject Property. Copies of the above the workplan have been prepared and sent to the following individuals. I have been reassured that Mr. Martins will coordinate copies of this workplan with other owners.

(1) copy to: Ms. Anne Marie Holland  
Estate of Jack Holland  
1498 Hamrick Lane  
Hayward, CA 94544

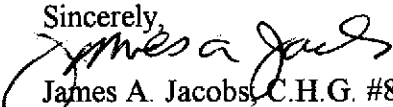
(2) copies to: Mr. Edward E. Martins  
Law Offices of Edward E. Martins  
22698 Mission Blvd.  
Hayward, CA 94541

(1) copy to: Ms. Jessica Chiaro  
Clearwater Group (assisting client with USTCF paperwork)  
229 Tewksbury Ave.  
Pt. Richmond, CA 94801

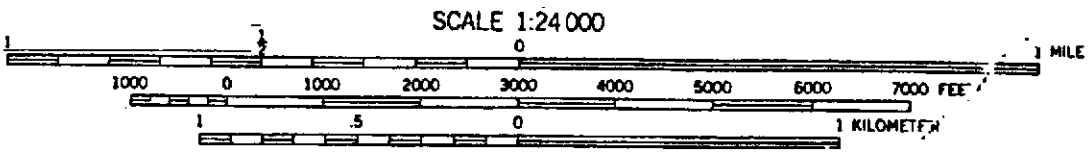
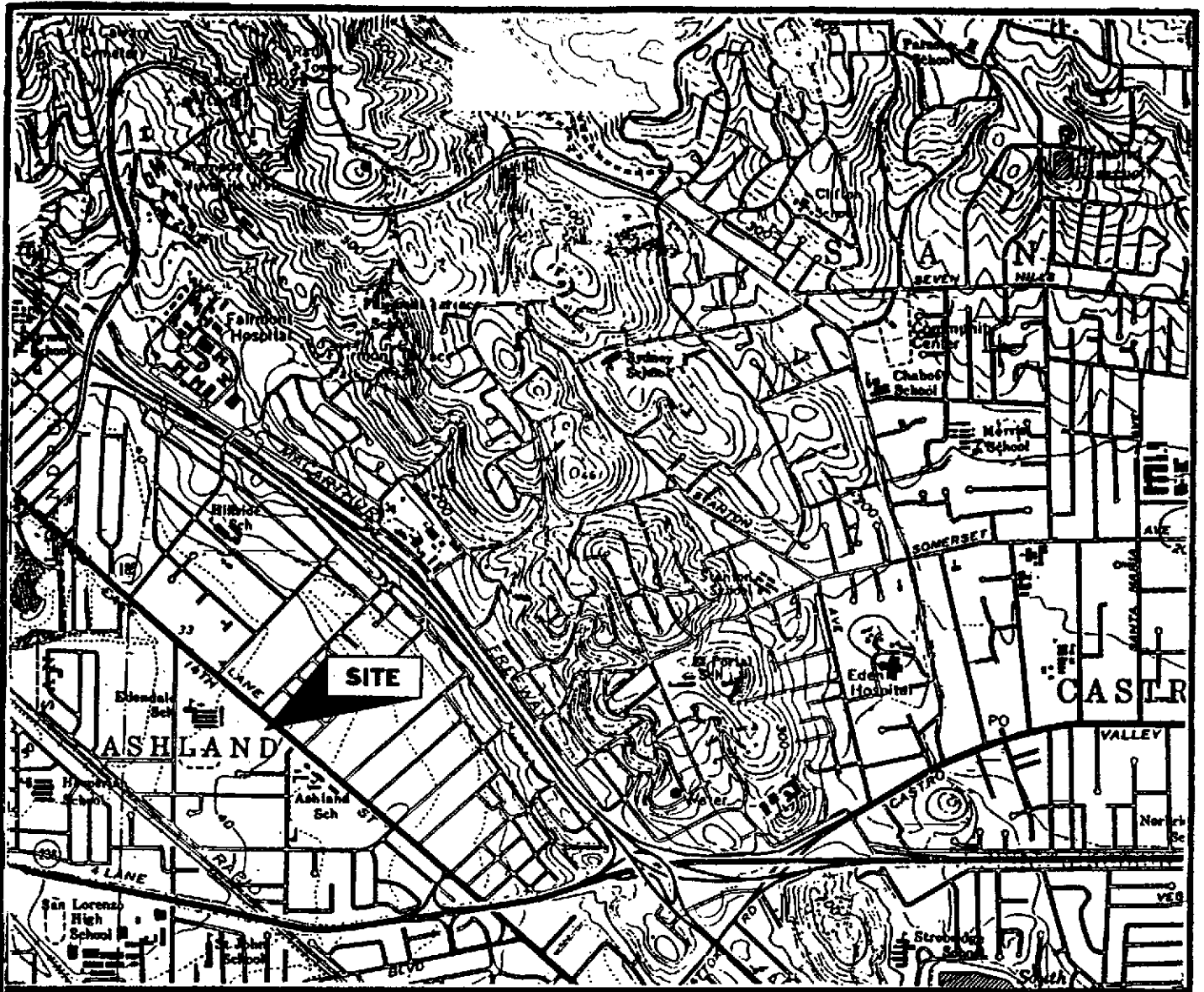
(1) copy to: Mr. Chuck Headlee  
Regional Water Quality Control Board; RWQCB Region 2; San Francisco Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Please call me at (415) 381-5195 if you have any questions.

Sincerely,

  
James A. Jacobs, C.H.G. #88; R.G. #4815  
Certified Hydrogeologist



**APPENDIX A**

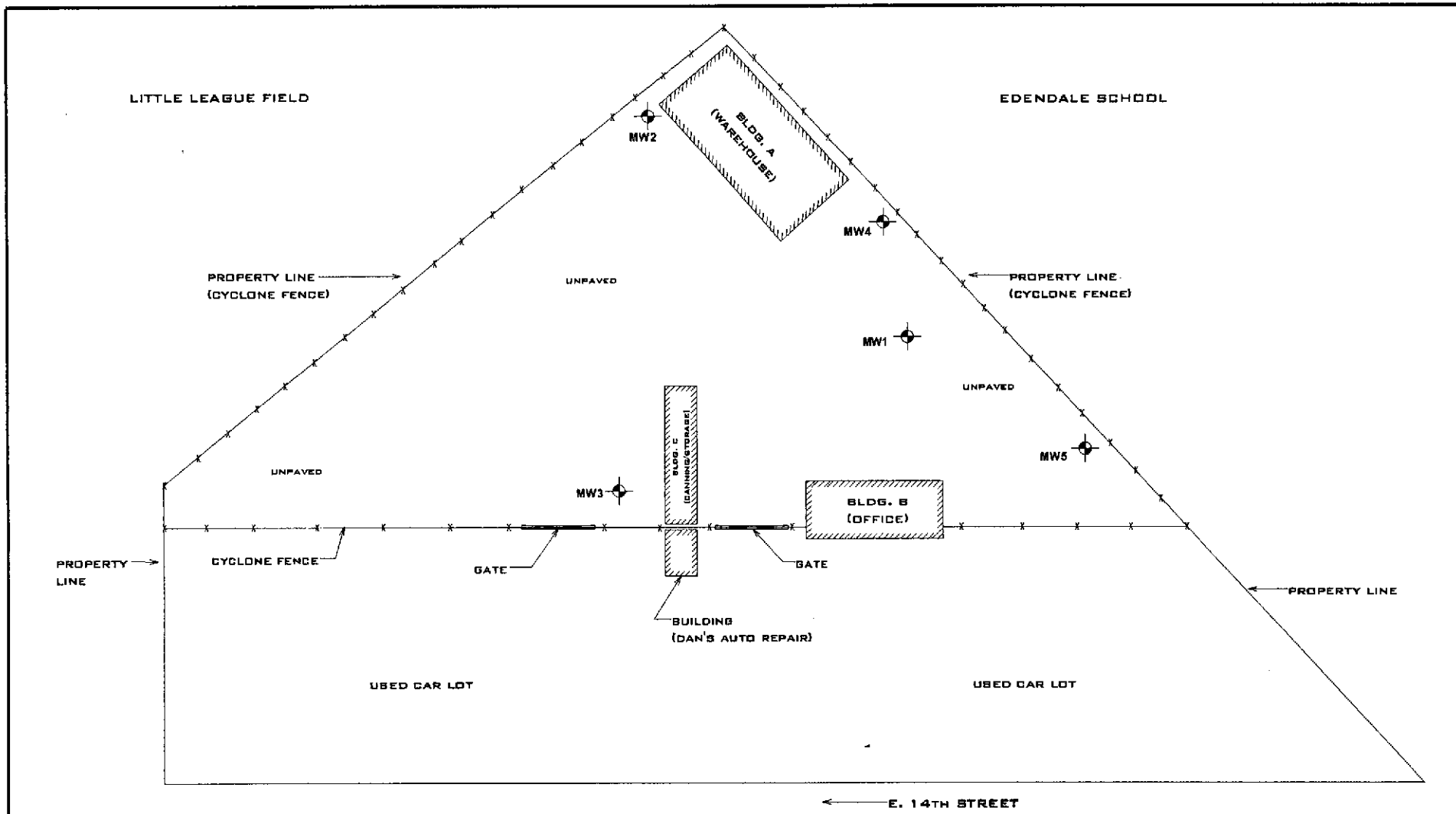


CONTOUR INTERVAL 20 FEET  
 DOTTED LINES REPRESENT 5-FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



Source: USGS Hayward, California 7.5-Minute Quadrangle Map

 <b>ENVIRONMENTAL          BIO-SYSTEMS, INC.</b>	<b>DATE:</b> 5/4/01	<b>FIGURE 1:          SITE LOCATION MAP</b>
	<b>DRAWN BY:</b> DAS	
	<b>SCALE:</b> 1" = 2,000' 	



**DATE:**  
3/03/03

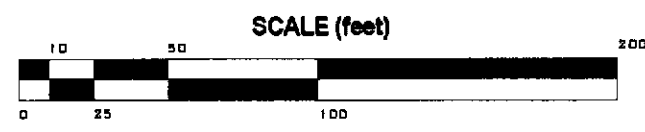
**DRAWN BY:**  
JAJ

**PROJECT#:**  
EBS 648

**SCALE:**  
AS SHOWN

**FIGURE 2: SITE MAP**

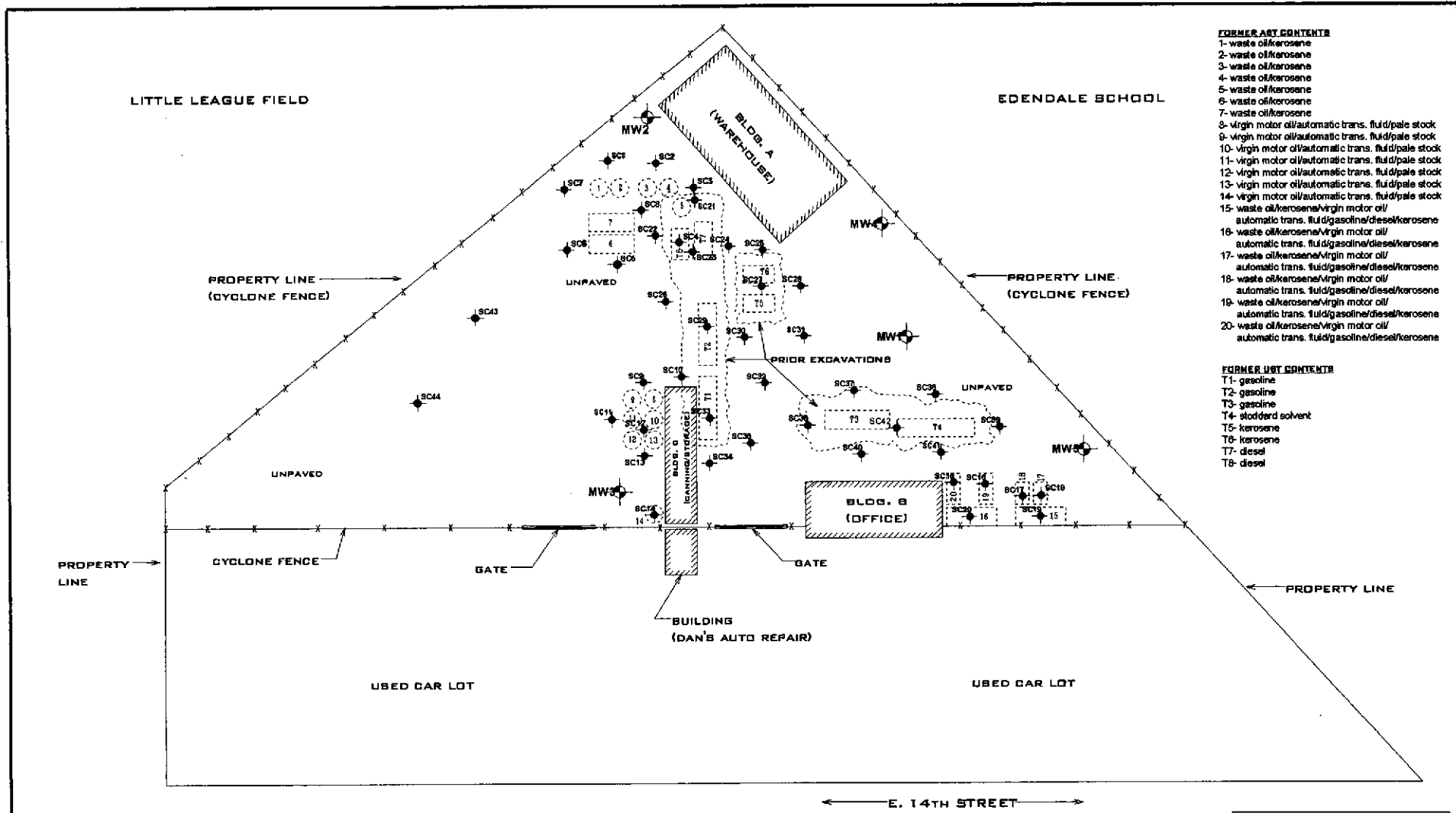
**ESTATE OF J. HOLLAND SR.**  
16301 E. 14th STREET  
SAN LEANDRO, CALIFORNIA



**LEGEND**

MW5 Ground water monitoring well





**FORMER AST CONTENTS**

- 1- waste oil/kerosene
- 2- waste oil/kerosene
- 3- waste oil/kerosene
- 4- waste oil/kerosene
- 5- waste oil/kerosene
- 6- waste oil/kerosene
- 7- waste oil/kerosene
- 8- Virgin motor oil/automatic trans. fluid/pale stock
- 9- Virgin motor oil/automatic trans. fluid/pale stock
- 10- Virgin motor oil/automatic trans. fluid/pale stock
- 11- Virgin motor oil/automatic trans. fluid/pale stock
- 12- Virgin motor oil/automatic trans. fluid/pale stock
- 13- Virgin motor oil/automatic trans. fluid/pale stock
- 14- Virgin motor oil/automatic trans. fluid/pale stock
- 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 17- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 18- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

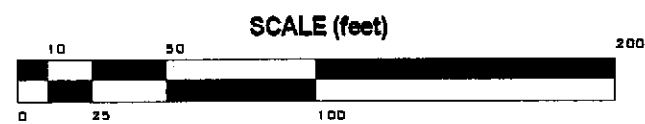
**FORMER UST CONTENTS**

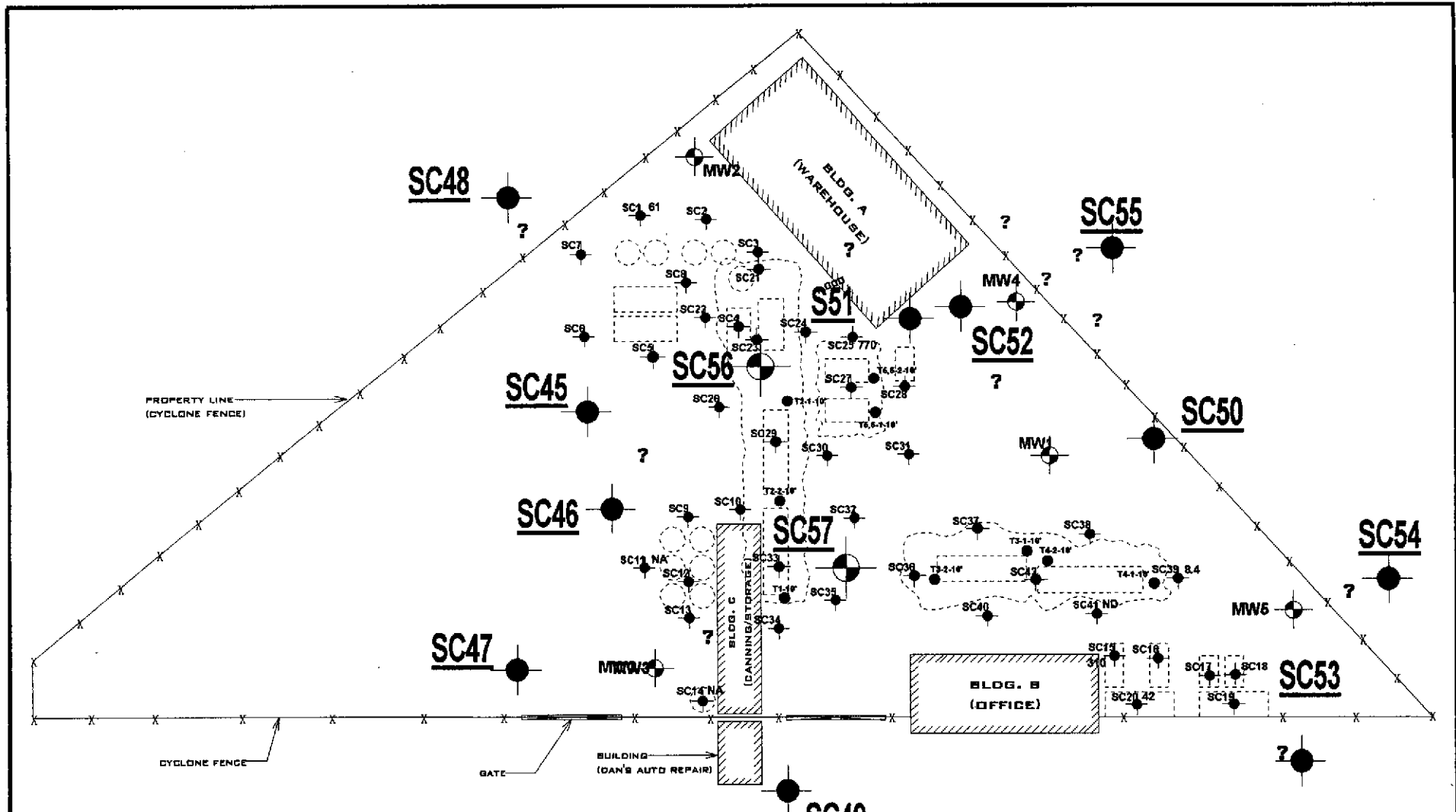
- T1- gasoline
- T2- gasoline
- T3- gasoline
- T4- Stoddard solvent
- T5- kerosene
- T6- kerosene
- T7- diesel
- T8- diesel

**LEGEND**

- Former vertical AST location.
- Former horizontal AST location.
- Former UST location.
- Ground water monitoring well.
- Soil core location.

<p><b>ENVIRONMENTAL BIO-SYSTEMS, INC.</b></p>	DATE: 3/3/03	<p><b>FIGURE 3: SAMPLE LOCATIONS FORMER AST/UST OVERLAYS</b></p> <p>ESTATE OF J. HOLLAND SR. 16301 E. 14th STREET SAN LEANDRO, CALIFORNIA</p>
	DRAWN BY: JAJ	
	PROJECT # EBS 648	
	SCALE: AS SHOWN	

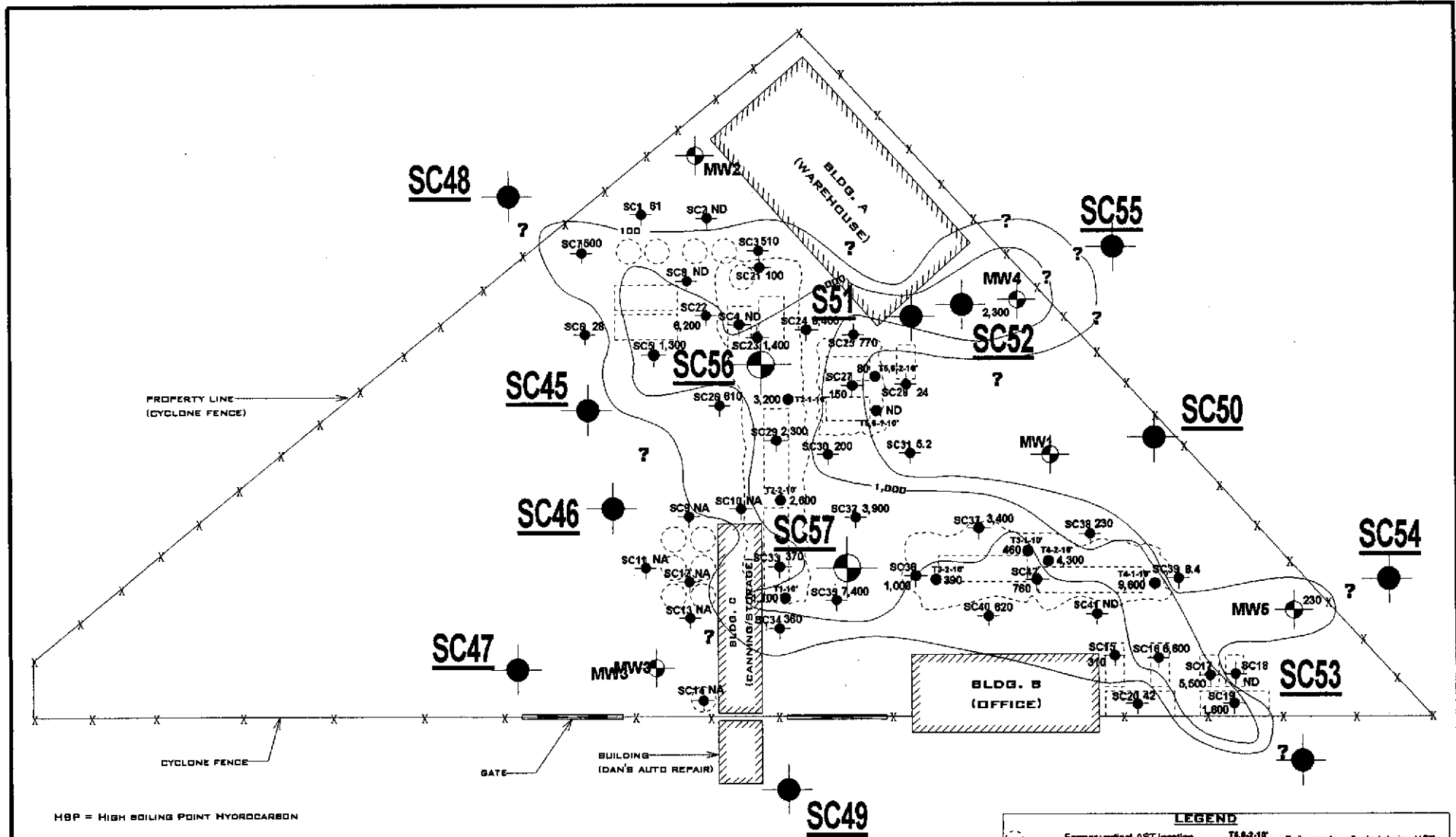




HBP = HIGH BOILING POINT HYDROCARBON

<p><b>ENVIRONMENTAL BIO-SYSTEMS, INC.</b></p>	DATE: 3/03/03	<p><b>FIG. 4: PROPOSED BORING AND WELL LOCATIONS</b></p> <p>ESTATE OF J. HOLLAND SR. 16301 E. 14th STREET SAN LEANDRO, CALIFORNIA</p>
	DRAWN BY: JAJ	
	PROJECT # EBS 648	
	SCALE: 1" = 30'	

<p><b>SC56</b> PROPOSED BORING/WELL</p>	<p><b>LEGEND</b></p> <p>Former vertical AST location. T&amp;E-2-10'</p> <p>Former horizontal UST or AST location. NO</p> <p>UST's shown within dotted excavation perimeters. NA</p> <p>Ground water monitoring well installed during current project. NR</p> <p>Soil core location. ?</p> <p>Sample content in mg/kg (ppm). 8,600</p>
<p><b>SC49</b> PROPOSED BORING</p>	
<p>Soil sample collected during UST excavation (9/8/88). Analyte not detected above laboratory detection limits used. Sample not analyzed for this analyte. No soil retention in sampler. Uncertainty due to lack of data.</p> <p>NOTE: Wells MW1, MW2 and MW3 not installed by EBS. Neither soil nor water sample data from these wells has been included.</p>	



HBP = HIGH BOILING POINT HYDROCARBON



DATE:  
3/03/03  
DRAWN BY:  
JAJ  
PROJECT #  
EBS 648  
SCALE:  
1" = 30'

FIG. 5: ISOCONCENTRATION MAP-  
HBP HYDROCARBONS; 8-12' SOIL  
  
ESTATE OF J. HOLLAND SR.  
16301 E. 14th STREET  
SAN LEANDRO, CALIFORNIA

**SC56** PROPOSED BORING/WELL  
**SC49** PROPOSED BORING



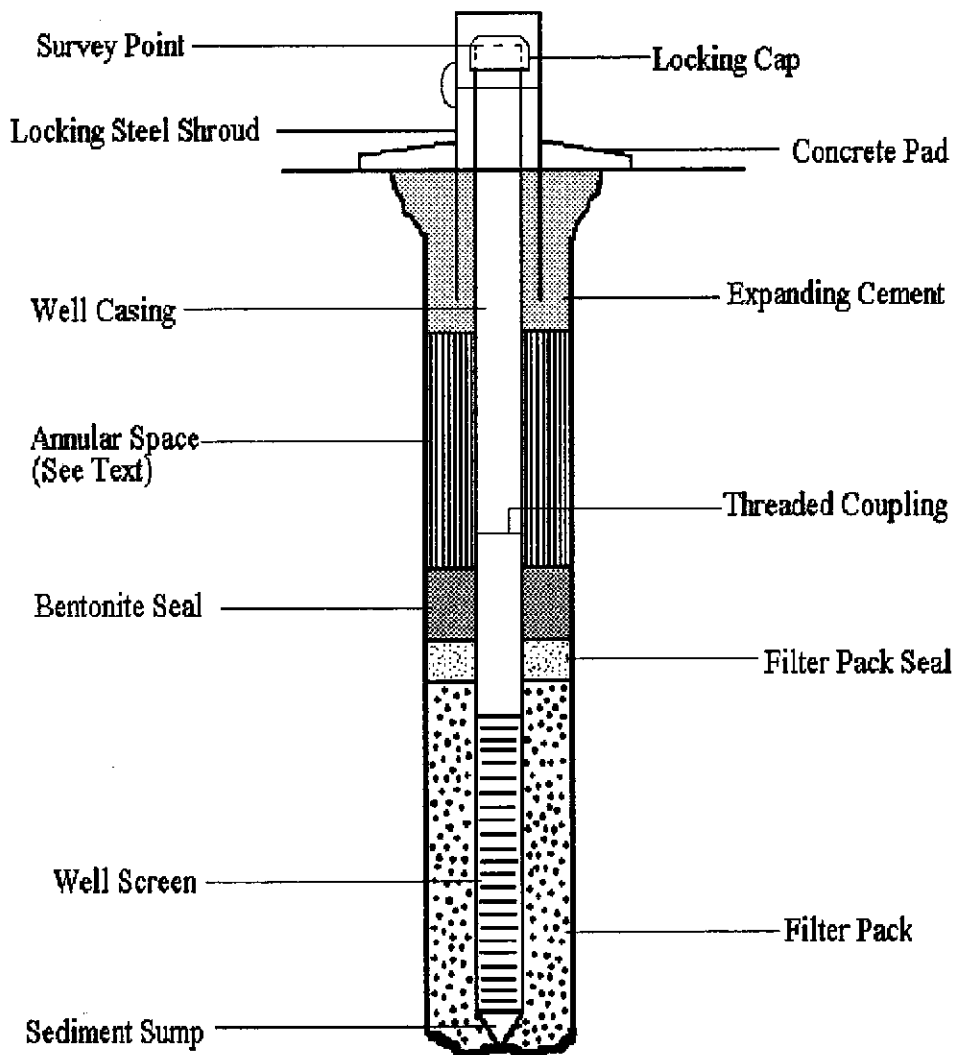
**LEGEND**

- Former vertical AST location.
- Former horizontal LUST or AST location.
- Ground water monitoring well installed during current project.
- Soil core location.
- Sample content in mg/kg (ppm).
- Soil sample collected during UST excavation (8/9/98).
- Analyte not detected above laboratory detection limits used.
- Sample not analyzed for this analyte.
- No soil retention in sampler.
- Isoconcentration contour line in mg/kg (ppm).

NOTE: Wells MW1, MW2 and MW3 not installed by EBS. Neither soil nor water sample data from these wells has been included.

**FIG. 6 - MONITORING WELL INSTALLATION DIAGRAM**

Date	3/5/03	Total Depth	15'	Casing type	Sch 40 PVC
Client	Holland Oil	Screen from/to	5-15'	Blank ft.	2-in dia.; 5'
Well No.	MW6, MW7	Filter Pack	4-15'	Screen ft.	2-in dia; 10'
Permit No.		Bentonite	3.5-4'	Slot size	0.010"
Storage soil	55 gal drums	Grout	Portland II	Bags cement	2 per well
Consultant	EBS	Drill Rig Type	HSA	Bentonite	0.5'
Driller	FAST-TEK	Auger ID/OD	4.25"; 7.63"	Bags sand	6 per well
Geologist	J. Jacobs	Sampler	CA split spn	Filter pack	2/12 sand
Screening	PID	Completion	Flush mount	Development	Surge block

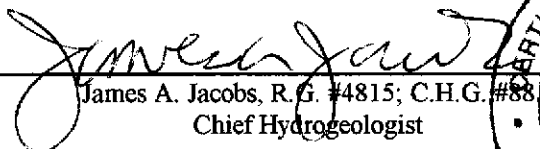


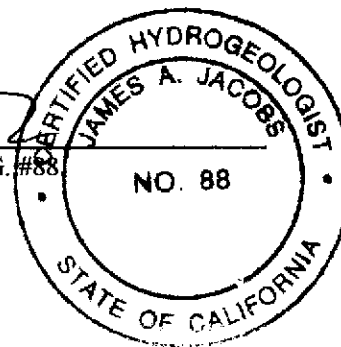
**APPENDIX B**

**SITE SAFETY PLAN:**  
**GROUNDWATER ASSESSMENT**  
**AND MONITORING WELL INSTALLATION**

at  
Estate of J. Holland, Sr.  
16301 East 14th Street  
San Francisco, California

PREPARED BY ENVIRONMENTAL BIO-SYSTEMS, INC.  
FOR  
ESTATE OF J. HOLLAND, SR.

  
James A. Jacobs, R.G. #4815; C.H.G. #88  
Chief Hydrogeologist



5 March 2003

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## 1. GENERAL INFORMATION

This Site Safety Plan (SSP) describes basic safety requirements for the drilling and sampling of eleven soil borings using a Direct Push Technology (DPT) probe rig and two exploratory boreholes and the conversion of the two boreholes into 2-inch diameter groundwater monitoring wells at the Estate of J. Holland, Sr. at 16301 East 14th Street in San Leandro, California. This work is being conducted in accordance with a signed contract dated February 7, 2003 between Environmental Bio-Systems, Inc. (EBS) and Ms. Nate Holland, Executress of the Estate of J. Holland, Sr. (the Client). The provisions of this plan apply to all individuals working on this phase of the project. Subcontractors may elect to increase the safety requirements for their work with the prior consent of EBS as described and accepted in writing.

The 3-acre site is currently used for storage of equipment and sale of used cars. The property is owned by the Client and others.

This SSP describes the expected potential hazards that may be encountered on site. Field work is expected to begin in the Spring, 2003 and be completed according to the schedule in the Workplan. If site working conditions, or the scope of work for this phase of the project change before or during the field work, this SSP will be revised in keeping with these changes.

### 1. PURPOSE

The proposed scope of work included in this work plan is intended to assess the lateral and vertical impact of petroleum hydrocarbons (jet fuel) to the subsurface near an underground storage tank (UST), which reportedly suffered an unauthorized release, and at two unpaved areas showing visible discoloration at the site.

### 2. SCOPE OF WORK

Briefly, the anticipated field work to be performed at the site will include the following tasks:

- Clearance of the areas using electromagnetic instruments.
- Coring through the asphalt or concrete (as needed) to prepare for the borings.
- Drilling of 11 exploratory soil borings with a DPT rig, and 2 with a hollow stem auger rig.
- Field screening of soil samples with a photoionization detector.
- Collection and analysis of soil samples. Stockpiling of soil cuttings and decontamination water on-site in labeled DOT-approved drums.
- Developing and sampling of the five existing groundwater monitoring wells and the two new ones.
- Surveying the new wells and using GPS to verify the location of all wells.



### **2.1. Preparation for Field Work**

Authorities including state and local regulatory agencies and any pertinent private entities will be notified of the intended work. Permission and permits to perform the work will be obtained as necessary. Advisement will include notifying these parties of our intent to perform the field work with this SSP in place. Both a private utility locator, Underground Service Alert (USA) will be used to clear proposed borehole locations prior to drilling. Knowledgeable Estate of J. Holland, Sr. staff members may be asked as to their knowledge of buried obstacles. Staging and decontamination areas will also be anticipated.

## **3. SAFETY PROCEDURES**

### **3.1. Site Safety Officer**

The Project Manager for EBS will oversee project safety measures on site as the designated Site Safety Officer. The Site Safety Officer is responsible for implementing this Site Safety Plan, for providing a copy of this Plan to subcontractors and other project participants as needed, and for advising site workers on health and safety matters. The Site Safety Officer has the authority to suspend or modify work practices if site safety conditions change or to dismiss subcontractors whose conduct does not meet the requirements specified in this Plan.

The Site Safety Officer will also convey information in this Plan to the EBS personnel assigned to the project and to the senior representative of each subcontractor on the project. The Site Safety Officer will address the following safety procedures on site:

- Provisions of the SSP, Company health and safety policies, and specific procedures.
- Safety supplies and equipment inventory on site.
- Daily safety meetings and advising workers regarding hazards.
- Site control, decontamination, and contamination-reduction procedures.
- Reporting accidents and incidents.

### **3.2. Site Hazards**

This assessment is based upon the suspected environmental hazards at the site. Field screening of soil and breathing zones will be performed using a portable PID.

#### **3.2.1. Anticipated Chemical Compounds**

The contaminants expected to be encountered on-site are petroleum hydrocarbons.

### **3.2.1.1. Exposure Pathways**

The potential exposure pathways are inhalation and skin contact. Protective clothing specified in this Plan will be mandatory for field personnel. In addition, respirators should be within easy reach in case odors reach irritating levels or irritation of the respiratory tract occurs.

Anticipated contaminants listed in the NIOSH Pocket Guide to Chemical Hazards are described briefly below. Information regarding the physical characteristics, incompatibilities, toxic effects, routes of entry, and target organs has been summarized and included.

**Important Note:** Whereas information used to compile the following list of anticipated chemical compounds to be encountered is limited to those identified in previous work at the site, it is possible that other compounds may be present at unknown concentrations. Skin contact with soil and dust should be minimized using appropriate level D PPE. The presence of discoloration and/or unusual odors, or physical sensations must be reported to the Site Safety Officer immediately upon detection.

#### **Benzene**

Benzene is colorless, aromatic liquid that may create an explosion hazard. It is incompatible with strong oxidizers, chlorine, and bromine with iron. Benzene is irritating to the eyes, nose, and respiratory system. Prolonged exposure may result in giddiness, headache, nausea, staggering gait, fatigue, bone marrow depression, or abdominal pain. Routes of entry include inhalation, absorption, ingestion, and skin or eye contact. Its targets are blood, the central nervous system, skin, bone marrow, eyes, and respiratory system. Benzene is carcinogenic.

#### **Toluene**

Toluene is a colorless, aromatic liquid that may create an explosion hazard. It is incompatible with strong oxidizers. Prolonged exposure may result in fatigue, confusion, euphoria, dizziness, headache, dilation of pupils, eye tearing, insomnia, dermatitis, or photophobia. Routes of entry are inhalation, absorption, ingestion, and skin or eye contact. The target organs are the central nervous system, liver, kidneys, and skin.

#### **Ethylbenzene**

Ethylbenzene is a colorless aromatic liquid that may create an explosion hazard. It is incompatible with strong oxidizers and irritates the eyes and mucous membranes. Prolonged exposure may result in headache, dermatitis, narcosis, or coma. Routes of entry include inhalation, ingestion, and skin or eye contact. The target organs are the eyes, upper respiratory system, skin, and the central nervous system.

**Xylene Isomers**

Xylene is a colorless, aromatic liquid that may create an explosion hazard. It is incompatible with strong oxidizers and irritates the eyes, nose, and throat. Prolonged exposure may result in dizziness, excitement, drowsiness, staggering gait, corneal vacuolization, vomiting, abdominal pain, or dermatitis. Routes of entry are inhalation, absorption, ingestion, and skin or eye contact. Its targets are the central nervous system, eyes, gastrointestinal tract, blood, liver, kidneys, and skin.

**Methyl Tert-Butyl Ether**

Methyl Tert-Butyl Ether (MTBE) is a gasoline additive. It is colorless liquid, Do not breathe vapor, do not get in eyes, on skin, on clothing. Keep away from heat, sparks and open flame. Harmful if swallowed, inhaled or absorbed through skin. Vapor or mist is irritating to the eyes, mucous membranes and upper respiratory tract. Causes skin irritation. Exposure can cause nausea, vomiting, dizziness, CNS depression. Aspiration or inhalation may cause chemical pneumonitis. Rapidly absorbed following oral exposure. This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP or EPA classification. Its target organs are kidneys, central nervous system. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**3.2.2. Anticipated Physical Hazards**

General hazards associated with the operation of machinery and drilling equipment at the site will be encountered. In addition, inclement weather may present slip/trip hazards.

**3.3. Required Protective Equipment**

Field personnel and visitors who enter the designated work areas are required to wear the following protective clothing and equipment: hard hats, steel-toed boots, and safety glasses (modified Level-D).

The following clothing and equipment must be worn by workers: hard hats, steel toed boots of neoprene or polyvinyl chloride (or chemically resistant over boots if leather steel-toed boots are worn), safety glasses, gloves, (neoprene, nitrile or polyvinyl chloride), and standard Tyvek coveralls during any activity with a splash hazard (modified Level-D). As noted above, respirators with appropriate cartridges must be readily available and usable in case site conditions require their use. Subcontractors are responsible for providing the required safety equipment for their employees.

### **3.3.1. Respiratory Protection**

EBS employees are required to have a physical at the expense of Environmental Bio-Systems, Inc. before respirators are issued to them. As part of their safety training, they are given information on proper methods of wearing and caring for their respirators. Training topics include the following: applicable OSHA regulations 1910.120 and 1910.134, selection of respiratory equipment that is appropriate to the respiratory hazards that may be encountered at the work site, proper fitting of respirators, functions and limitations of respirators, and methods of cleaning, disinfecting, inspecting, maintaining and storing respirators.

Respirators must not be used when atmospheres are, or may become, immediately dangerous to life or health or in atmospheres where the identity or concentration of contaminants is unknown. Respirators may not be used in atmospheres containing less than 19.5% oxygen.

Cartridges or canisters for respirators are selected and supplied to EBS employees by Environmental Bio-Systems, Inc. Failure to choose or use a respirator equipped with cartridges or filters suitable for the contaminants on-site may result in little or no protection against the contaminated atmosphere. Cartridges designed and specified for protection against specified gases and vapors are not appropriate for protection against airborne particles or other gases or vapors beyond the scope of that type of cartridge. The Site Safety Plan specifies the contaminants to be encountered, and the Site Safety Officer will provide the cartridges, canisters or filters appropriate to these contaminants if use of respirators may be necessary.

Conditions of use of respirators include but are not limited to the following:

- The concentration of contaminants in the atmosphere.
- Temperature and humidity of the ambient atmosphere.
- Any previous use of the cartridges and filters.
- The time since removing the cartridges or filters from their protective packaging.
- The level of physical activity of the wearer.
- Other characteristics of the wearer.

The respirator may have failed, cartridges may be inappropriate, or abnormal conditions may exist if the wearer observes any of the following conditions:

- Chemicals can be smelled or tasted.
- Eyes, nose, or throat become irritated.
- Breathing is difficult.
- The air being inhaled becomes uncomfortably warm.
- Headaches, dizziness, cramps, nausea, or blurred vision occur.
- Skin becomes discolored.
- Motor coordination, personality, or demeanor change.

- Speech ability changes.
- Excessive salivation is experienced.
- Others observe changes in pupillary response of the wearer.

If any of the above conditions are noted, the wearer of the respirator must leave the work zone for fresh air and advise the Site Safety Officer immediately of the incident. The Site Safety Officer will reevaluate safety conditions on-site.

### **3.4. Atmospheric Monitoring**

Breathing zone atmosphere will be periodically monitored using a Thermo-Analytical Model D PID, calibrated at the beginning of the project to 100 ppm isobutylene scan gas. Should vapors within the breathing zone exceed 50 ppm for more than 10 minutes, field workers will don half-face respirators with OV-HEPA cartridges. Cartridges shall be changed upon breakthrough of odors, or increase in breathing resistance.

### **3.5. Minimum Safety Procedures**

The following minimum safety requirements must be observed during field work:

1. Eating, drinking, and smoking will be restricted to a designated area outside of the work zone.
2. Workers will wash hands and faces before eating, drinking, or smoking in the designated area.
3. The Project Manager will take precautions to detect and either remedy, or isolate the following safety hazards:
  - Wet or oily surfaces that may cause slipping, falling objects including equipment and tools, falls from heights, tripping hazards, and faulty or inadequate protective equipment and tools.
  - Dust, dirt, liquids or other potentially contaminated materials should not be removed from clothing or equipment by blowing or shaking.
4. Gross decontamination and removal of all personal protective equipment will be performed before leaving the site. Contaminated clothing will be removed and collected in a drum for disposal.
5. Workers should inform the Project Manager and each other of symptoms indicating toxic materials, excessive heat, or other conditions that may be endangering health and safety. Such symptoms include dizziness, headaches, blurred vision, nausea, cramps, irritations (of skin, eyes, or respiratory tract), discoloration of skin, behavioral changes, loss of motor coordination, or changes in salivation, pupillary response, or speech.

#### **4. SITE SAFETY MEETING**

Field work each day will begin with a project-specific site safety meeting. Field personnel from EBS and its' subcontractors will attend the meeting to be briefed on the provisions of this Site Safety Plan, to review the project tasks, and to discuss any safety issues or questions. The meeting will be led by the Site Safety Officer. In addition fit-testing of respiratory protective devices will be conducted as part of the safety orientation meeting when the use of a respirator may be required. On-site safety meetings are essential to alerting personnel to the hazards associated with the expected contaminants.

#### **5. WORK ZONES AND BARRICADES**

Exclusion zones will be designated around the drilling areas. Only essential workers equipped with the specified safety equipment will be allowed in these exclusion zones.

Cones, wooden barricades, or a suitable alternative will be used to deny public access to work areas. If for any reason the safety of the public (such as a motorist or pedestrian) may be endangered, work will cease until the situation is remedied. Cones and warning signs will be used when necessary to redirect motorist or pedestrians and in keeping with any permit requirements.

#### **6. DECONTAMINATION**

Gross decontamination will be done on-site at the conclusion of work including work breaks, tasks or use of particular equipment, and the work day. Gross decontamination will include washing contaminated equipment with an Alconox solution. Steam cleaning is an acceptable alternative for heavy equipment and tools. Disposal on-site in drums is also an acceptable alternative for items such as gloves and Tyvek suits.

#### **7. EMERGENCY RESPONSE PROCEDURES**

If emergency releases or accidents such as fires, explosions, or property damage occur, the Site Safety Officer and Management of EBS must be notified immediately. If necessary, local fire or response agencies should be called, and the Client should be advised as soon as time permits. If physical injury occurs, first aid should be administered and the injured worker should be transported to the nearest hospital or emergency medical clinic for treatment. A physician's attention is required regardless of the severity of the injury.

If personnel are exposed to hazardous materials on-site, typical responses should include the following:

- For skin or eye contact, wash and rinse affected area(s) thoroughly with copious amounts of soap and water, then provide appropriate medical attention. Eyes and skin should be rinsed for a minimum of 15-minutes after chemical contamination.
- If inhalation occurs, move the person to fresh air, decontaminate external areas, and transport to the hospital.
- If ingestion occurs, decontaminate external areas and transport the worker to the hospital.
- If puncture wounds or lacerations occur, decontaminate external areas and transport the worker to the hospital.

#### **7.1. Nearest Hospital**

The Hospital nearest the job site is:

San Leandro Hospital, 13855 East 14<sup>th</sup> Street, San Leandro, California A map showing the route from the work site to the hospital is attached.

### **Directions to Hospital:**

**A map showing this route is attached.**

**Go southeast 1.1 miles to the hospital; Driving time: 2 minutes**

**The telephone number of this hospital is:  
(510) 357-6500. Or call 911.**

**7.2. Emergency Telephone Numbers**

The Project Manager and Site Safety Officer for this project will be James A. Jacobs. Important telephone numbers have been listed below.

- **Police, Fire, and Ambulance** ..... 911
- **Environmental Bio-Systems, Inc.**..... (415) 381-5195
- **Jim Jacobs, mobile** ..... (510) 590-1098
- **Jim Jacobs, pager** ..... (415) 451-6431
- **San Leandro Hospital** ..... (510) 357-6500
- **Poison Control Center**..... (800) 523-2222
- **CHEMTREC**..... (800) 424-9300

**Note:** Only call CHEMTREC if no other source of emergency information can be reached. CHEMTREC stands for Chemical Transportation Emergency Center, a public service of the Chemical Manufacturer's Association. CHEMTREC can usually provide hazard information, warnings, and guidance when given the identification number or the name of the product and the nature of the problem. CHEMTREC can also contact the appropriate experts.

**8. LIMITATIONS**

This Site Safety Plan was developed in accordance with generally accepted standards of current safety practice in the State of California. The terms of this Plan should not be considered valid after one year because of the changing regulations in environmental and safety practice. EBS is not able to eliminate the risks associated with environmental and hazardous waste or toxic sites. No guarantees or warranties, express or implied, are provided with this Plan.



# SAFETY PLAN SIGN-IN SHEET

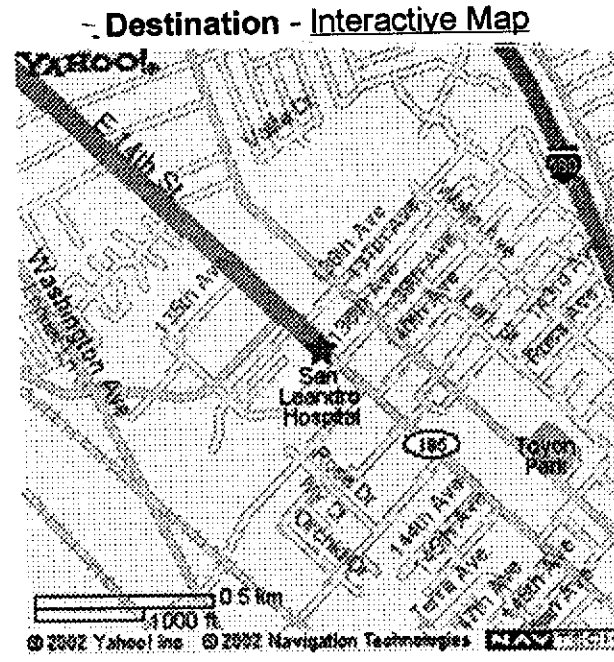
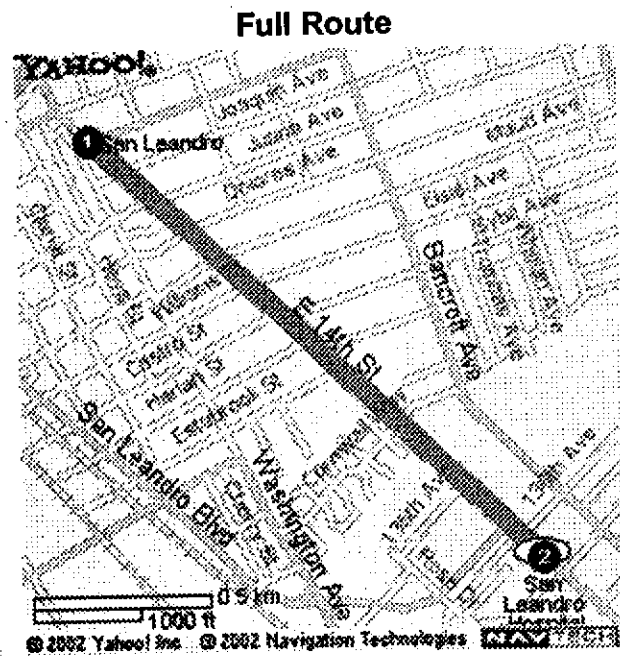
**Safety Plan has been reviewed by the following persons:**

Environmental Bio-Systems, Inc. Date:  
Project Manager: \_\_\_\_\_

Others: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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This Site Safety Plan may be amended or modified in writing. Any amendments or modifications are attached and are listed below. These items have also been reviewed and approved by the personnel named above.

Attached Amendments or Modifications: None as of 5 March 2003



San Leandro Hospital

Directions	Miles	
1. Start on E 14TH ST	1.1	↑

**Distance: 1.1 miles Approximate Travel Time: 2 mins**

<p><b>ENVIRONMENTAL BIO-SYSTEMS, INC.</b></p>	DATE: 3/03/03	FIGURE
	DRAWN BY: JAJ	HOSPITAL DIRECTIONS MAP
	PROJECT#: EBS 648	ESTATE OF J. HOLLAND SR.
	No scale implied	16301 E. 14th STREET SAN LEANDRO, CALIFORNIA

San Leandro Hospital 13855 East 14th Street, San Leandro, CA 94578 (510) 357-6500