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Shaw® Shaw Environmental, Inc.

January 30, 2008

Mr. Don Hwang
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Subject: **1685 24th Street, Oakland, California**
Transmittal of Work Plan

Dear Mr. Hwang:

Enclosed please find the *Work Plan for Due Diligence Support, 1685 24th Street, Oakland, California*. This document is a work plan to conduct soil, groundwater and soil vapor sampling at the site as part of a due diligence evaluation of the subject site for Lakeshore Partners, LLC. Shaw Environmental will inform Alameda County Environmental Health of the dates for the field sampling as soon as possible following procurement of subcontractors.

One hard copy is enclosed. If you have any questions regarding this submittal, please contact me at (925) 288-2119.

Sincerely,

Sydney Geels
Project Manager

Enclosures

cc: Thomas E. Peterson, Lakeshore Partners, LLC

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WORK PLAN FOR DUE DILIGENCE SUPPORT

Former Lee's Auto Body Property
1685 24th Street
Oakland, California

January 2008

Prepared for:

Mr. Thomas E. Peterson
Lakeshore Partners, LLC
780 West Grand Avenue, Suite 200
Oakland, California 94612

Prepared by:

Shaw® Shaw Environmental, Inc.
4005 Port Chicago Highway
Concord, California 94520

Shaw Project No. 128319

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Acronyms and Abbreviations

ACC	ACC Environmental Consultants, Inc.
BTEX	benzene, toluene, ethyl-benzene, xylenes
CAM	California Assessment Manual
DOT	Department of Transportation
EDR	Environmental Data Resources
ELAP	Environmental Laboratory Accreditation Program
ESL	Environmental Screening Levels
EPA	U.S. Environmental Protection Agency
HSP	health and safety plan
HVOC	halogenated volatile organic compounds
JSA	Job Safety Analysis
L	liter
mL/min	milliliters per minute
MTBE	methyl-tertbutyl ether
PID	photoionization detector
RWQCB	Regional Water Quality Control Board
SVOC	semivolatile organic compound
TEPH	total extractable petroleum hydrocarbons
TPH-g	total petroleum hydrocarbons as gasoline
USA	Underground Service Alert
UST	underground storage tank
VOCs	volatile organic compounds

1.0 Introduction

Shaw Environmental, Inc. (Shaw) was retained by Lakeshore Partners, LLC to further assess soil, soil vapor and groundwater conditions at the Property (hereafter referred to as the "Site") located at 1685 24th Street in Oakland, California (Figure 1). Described in this work plan is the scope of work that will be completed to further assess conditions at the subject site as specified in Shaw's October 15, 2007 proposal to Lakeshore Partners, LLC.

1.1 Site Description

The subject property is located on the southeastern corner of Willow and 24th Streets in the city of Oakland, in Alameda County, California, and consists of land formerly occupied by Lee's Auto Body Shop and the southeastern portion of Pacific Pipe Company's storage yard. The Site lies within Parcel 1-11 on the Hougham Tract Assessor's Map. The Site extends southwest along Willow Street approximately 300 feet and northeast along 24th Street approximately 200 feet. The Site location is presented as Figure 1.

1.2 Site Background

The vicinity of the Site has been used commercially since the 1900s. Pacific Pipe Company has owned the subject property since the 1940s. The Site was operated as a taxicab maintenance facility from approximately 1966 to 1990. Lee's Auto Body Shop conducted automotive repair operations from 1990 to the present (ACC, 2007).

Records review and a Phase I Environmental Site Assessment conducted by ACC Environmental Consultants, Inc. (ACC) indicate that seven underground storage tanks (USTs) were removed from the vicinity of the Site in April 1987. Three USTs were removed from the Former Lee's Auto Shop property, and four USTs were removed from what is currently the Pacific Pipe Company Yard. Oakland Fire Department Office of Emergency Services permit records indicate the authorized USTs consisted of three 1,000-gallon USTs, two 7,500-gallon USTs, and two 8,000-gallon USTs. Phase I Environmental Site Assessment documents detail the removal of two 7,500-gallon gasoline USTs, two 10,000-gallon gasoline USTs, and one 550-gallon waste oil tank from the properties. ACC site plan maps depict three former UST locations on the former Lees Auto Body Shop, and four former UST locations in the northwest corner of the Pacific Pipe Company storage yard. The contents of the former USTs are not specified (ACC, 2007). The UST locations are estimated from unscaled UST removal site plans and records, site observations and geological observations made during subsurface investigations. Clarification regarding the conflicting UST capacities, contents; historical number of USTs present; and number of USTs removed from the Site is not documented in ACC sources reviewed.

ACC conducted subsurface investigations of the Site in 2002 and 2006. Soil and groundwater samples were collected and analyzed for total petroleum hydrocarbons as gasoline (TPH-g) benzene, toluene, ethyl-benzene, xylenes (BTEX), methyl-tertbutyl ether (MTBE) and total extractable petroleum hydrocarbons (TEPH) as diesel and motor oil. Two soil samples collected in 2002 in the vicinity of the estimated former tank locations on the current Pacific Pipe Company storage yard were also analyzed for lead. One water sample collected in 2002 in the vicinity of the Lees Auto Shop building was analyzed for halogenated volatile organic compounds (HVOCs). Results of sampling indicated impact in soil and groundwater from TPH-g, BTEX, and TEPH as diesel, indicative of unauthorized releases from existing or former USTs in the vicinity of the Site (ACC, 2007).

2.0 Scope of Work

This work plan proposes locations and procedures for investigating soil vapor, soil and groundwater quality on the Site to further evaluate the presence of petroleum hydrocarbon compounds previously detected in samples from the subject and surrounding properties. Review of historical site records is also proposed to clarify the location and contents of former USTs and evaluate potential off-site sources for petroleum hydrocarbon compounds and possible migration pathways due to the presence of underground utilities. Planned activities include:

- Review of historical documents and databases.
- Utility survey, reconnaissance and mapping.
- Installation of six soil vapor sampling points.
- Collection of soil vapor samples for laboratory analysis.
- Completion of four direct push soil borings.
- Collection and analysis of soil samples for laboratory analysis.
- Installation of four temporary groundwater monitoring wells in the soil borings.
- Collection of groundwater samples for laboratory analysis.
- Abandonment of soil vapor points, borings, and temporary wells.

3.0 Site Investigation

The investigation of the subject property will be conducted in several stages. An evaluation of potential "off-site to on-site" and "on-site to off-site" environmental impacts will be conducted through a records search and a utility survey. The records search and utility survey will also provide additional information to clarify the locations and contents of the former USTs on and off Site. Investigation at the subject site will consist of soil, soil vapor, and groundwater quality investigation.

The proposed methods and procedures used to complete the investigation and field activities are described in the following sections.

3.1 Records Search

Shaw will retain the services of Environmental Data Resources (EDR) to procure historical aerial photographs, topographic maps, Sanborn Fire Insurance Maps, and City Directory listings. Shaw will also attempt to locate and review as-built drawings for the Site improvements from the Oakland Public Works Department. This information will be used to clarify previous UST locations and contents both at the Site and on surrounding properties. EDR will also perform a governmental agency search to identify off-site incidents and possible impacts from surrounding properties.

3.2 Health and Safety

Prior to initiation of field activities, a site-specific health and safety plan will be developed to outline safety measures to be implemented during field activities. A tailgate safety meeting will be conducted by Shaw at the beginning of each field work day with the field team and contractors present where the health and safety plan (HSP) will be reviewed. Current conditions of the work site and necessary precautions not outlined in the HSP will be documented and discussed in a Job Safety Analysis (JSA).

3.3 Utility Survey

A utility survey will be conducted to evaluate potential pathways for migration onto or off of the Site. The utility survey will also be used to ensure proposed drilling locations will be free of sub-grade utilities and obstructions. Shaw will contact Underground Service Alert (USA) North, a free public utility locating service, to have any utilities marked that lie in the adjacent rights of way on 24th Street, Willow Street, and any utilities intersecting the Site. Shaw will procure the services of a private utility location firm to mark any private underground utilities and structures on the Site. Shaw personnel will document and map the findings of the public and private utility locating activities.

3.4 Soil Vapor Survey

Shaw proposes to conduct a soil vapor survey across the Site to evaluate the potential for surface receptors to be exposed to volatile organic compounds (VOCs) which may be present in soil and/or groundwater on the Site. The proposed soil vapor monitoring points are illustrated on Figure 2. The data from the soil vapor survey also can be used to evaluate the need to remediate the Site and/or to implement engineering controls to minimize potential exposure.

3.4.1 Soil Vapor Borings

Six borings will be advanced at the Site using direct-push technology to 5 feet below surface grade for soil vapor collection (Figure 2). If groundwater is observed at 5 feet below surface grade, a shallower depth will be selected for soil vapor sampling. Before and after each use, all reusable drilling and sampling components will be properly cleaned.

3.4.2 Soil Vapor Sampling

A drive rod will be advanced to the selected depth and then pulled back to expose the inlets of the soil vapor probe. During installation of the probe, hydrated bentonite will be used to seal around the drive rod at ground surface to prevent ambient air intrusion from occurring. The annular space inside the coring tool from probe tip to the surface will be continuously sealed (e.g., a sampling tube attached to a screw adapter fitted with an o-ring and connected to the probe tip) to prevent infiltration of ambient air. An equilibration time of 20 minutes will be taken to allow subsurface conditions to normalize prior to any testing or sampling.

Before purging and sample collection, tests will be performed to ensure surface fitting leaks are not occurring. During sampling, a gaseous traceable compound will be introduced into the air surrounding the sample apparatus and drive rod. When the samples are submitted to the laboratory, analysis for the tracer compound will be requested. A duplicate sample will be collected and a trip blank will also be taken into the field and submitted for analysis.

To ensure stagnant or ambient air is removed from the sampling system and to assure samples collected are representative of subsurface conditions, the soil vapor sampling locations will be purged before sampling. At minimum, three volumes of air from each sample point and sampling apparatus will be removed during purging. The appropriate purge volumes will be evacuated at a rate of between 100 and 200 milliliters per minute (mL/min). The probes and tubing will be purged by attaching clean Teflon®-lined tubing to the wellhead fitting, well tubing or other sample port from which the sample is to be drawn, and connecting to a hand pump (syringe). After purging is complete, the tubing will be disconnected from the hand pump. The hand pump will be tested for air tightness prior to purge testing.

The soil vapor samples will be collected in SUMMA™ canisters. The vacuum in each SUMMA™ canister will be verified by attaching a vacuum gauge to the canister, prior to sample collection. The vacuum will be recorded. After the vacuum gauge has been removed, a sample tube will be attached to the SUMMA™ canister. The canister valve will be opened to draw in soil vapor until the vacuum in the canister is reduced from approximately 30 inches to approximately 5 inches of mercury. At 150 to 200 mL/min, approximately 5 liters (L) will be collected in the 6-L SUMMA™ canister, which should fill in about 25 minutes. When the canister vacuum reaches approximately 5 inches of mercury, the canister valve will be closed

and the canister placed inside an appropriate shipping container for delivery to the analytical laboratory.

The sampling technician will record the final vacuum in the canister in the project logbook and on the chain-of-custody document. The vacuum in the sample canister will be checked in the laboratory and used to determine whether the canister leaked during transport. Between collection of samples from each probe, tubing, flow restrictors, vacuum gauges, and connection hardware in the sample apparatus that has come in contact with the sample will be replaced to eliminate the possibility of cross-contamination.

The purge volume test, leak test, and soil vapor sampling will be conducted at least 24 hours after the soil vapor probe installation. If no-flow or low-flow conditions are caused by wet soils, the soil vapor sampling will cease. In addition, soil vapor sampling will not be conducted during or immediately after a significant rain event or on-site irrigation. When soil vapor sampling is complete, all boring and sampling equipment will be removed from each boring. The six borings will then be properly abandoned by filling each boring to the surface with neat cement grout.

3.4.3 Soil Vapor Sample Analysis

The soil vapor samples collected from the Site will be submitted to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis for VOCs using Environmental Protection Agency (EPA) method TO-15. The data will be compiled and evaluated relative to Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) 2007 Environmental Screening Levels (ESLs) for potential future commercial and/or residential use.

3.5 Direct Push Soil Investigation

A total of four direct-push soil borings will be advanced at select locations on the Site, illustrated on Figure 2. One soil boring will be placed in the vicinity of the former UST system to evaluate current conditions in the area of the highest reported historic concentrations of petroleum hydrocarbon constituents in groundwater. This boring will be advanced into the soil beyond the first observed groundwater table to provide information regarding the vertical extent of impact to soil and groundwater quality. Three borings will be located in an area intended to provide current information regarding the extent of impact to soil and groundwater quality. Borings will be advanced into the first observed groundwater table or to a maximum depth of 30 feet below grade. Groundwater has previously been observed at a depth of 8 to 9 feet below grade.

Soil will be cored continuously using a 48-inch long core sampler lined with clear, lexan sample tubes. Select soil samples will be used for lithologic evaluation and field screening for organic vapors. Headspace screening for organic vapors will be accomplished using a photoionization detector (PID). Soil cores will be logged using a modified version of the Unified Soil

Classification System by a Shaw field geologist, working under the supervision of a California Professional Geologist.

3.5.1 Soil Sampling and Analysis

One soil sample will be collected from each soil boring for laboratory analysis. A soil sample will be collected from the interval with the highest organic vapor readings or where other indications of petroleum impact such as visible staining or odor are observed. If a boring exhibits non-detect PID readings and no indications of petroleum impact are noted, a soil sampling interval will be selected that is above the observed water level in the soil core. VOC samples will be collected using Encore™ or equivalent sample containers. Samples for all other analysis will be cut from the soil core acetate liners and capped.

Following collection, each sample container will be labeled, placed in an insulated chest with ice, and transported to the laboratory under chain-of-custody protocol. Samples will be analyzed for TPH as gasoline and diesel by EPA method 8015M, VOCs (including MTBE and BTEX) by EPA method 8260B, and California Assessment Manual (CAM) 17 metals by EPA method 6010B/7400. Select samples collected in the area of the former used oil UST will also be analyzed for TPH as oil and hydraulic oil by EPA method 8015M, semi-volatile organic compounds (SVOCs) by EPA method 8270, and antifreeze (ethylene glycol) by EPA method 8015M. The soil data will be compiled and evaluated relative to RWQCB 2007 ESLs for potential future commercial and/or residential use.

3.6 Temporary Well Installation

Upon completion of each soil boring, a temporary well composed of a 10-foot section of 1-inch diameter well screen will be placed into each borehole, followed by 1-inch blank PVC casing to grade. The outer direct push casing will be left in place above the well screen to keep the boring open until the groundwater samples are obtained.

3.6.1 Groundwater Sampling and Analysis

After the temporary well is placed in the boring, the depth to groundwater will be monitored until the level stabilizes. Groundwater samples will be collected using a new, single-use, polyethylene bailer for each temporary well. Prior to sampling, each well will be purged of approximately three saturated soil boring volumes of water. During purging, the temperature, specific conductance and pH of the water will be measured in the field. The measurements will be recorded in the field notes for the project. The water samples for laboratory analysis will be transferred into appropriate sample containers supplied by the analytical laboratory. Following collection, each sample container will be labeled, placed in an insulated chest with ice, and transported to the laboratory under chain-of-custody protocol.

The groundwater samples will be submitted for analysis to an ELAP certified laboratory. Samples will be analyzed for TPH as gasoline and diesel by EPA method 8015M, VOCs (including MTBE and BTEX) by EPA method 8260B, and CAM 17 metals by EPA method 6010B/7400. Select samples collected in the area of the former used oil UST will also be analyzed for TPH as oil and hydraulic oil by EPA method 8015M, SVOCs by EPA method 8270, and antifreeze (ethylene glycol) by EPA method 8015M. The groundwater data will be compiled and evaluated relative to potable-use water standards and relative to potential future commercial and/or residential use of the property.

3.7 Boring and Temporary Well Abandonment

Following completion of the temporary well sampling, the temporary well casing and screen will be removed from the borings. The soil borings will be filled to grade with neat cement grout, bottom up cement slurry. The tops will then be patched to match the surrounding surface material.

3.8 Waste Management

Water generated during field activities will be temporarily stored on site in labeled, Department of Transportation (DOT)-approved 55-gallon drums. The water will be profiled for disposal using the analytical data collected during current temporary well sampling activities. Although the generation of solid waste during field activities is not anticipated, any unanticipated solid waste generated will be profiled for disposal using the analytical data collected during soil sampling activities.

4.0 Reporting

Following completion of the sample collection and analysis, a report documenting the activities, and results will be prepared and submitted to Lakeshore Partners, LLC for review. The report will include summary tables of laboratory analytical results and figures illustrating the locations where samples were obtained with selected results posted at corresponding sampling points. The report will include a discussion of the results relative to RWQCB 2007 ESLs for potential future commercial and residential use of the Site and potential potable use of the groundwater.

5.0 References

ACC Environmental Consultants Inc., 2007. *Subsurface Investigation Report, 1685 24th Street, Oakland, California.* April.

6.0 Signatures

Plan prepared by:

Matthew J. Osowski
Project Scientist

Plan reviewed by:

Sydney Geels
Project Manager

Plan reviewed by:

Steven Pierce
California Professional Geologist
No. 6130

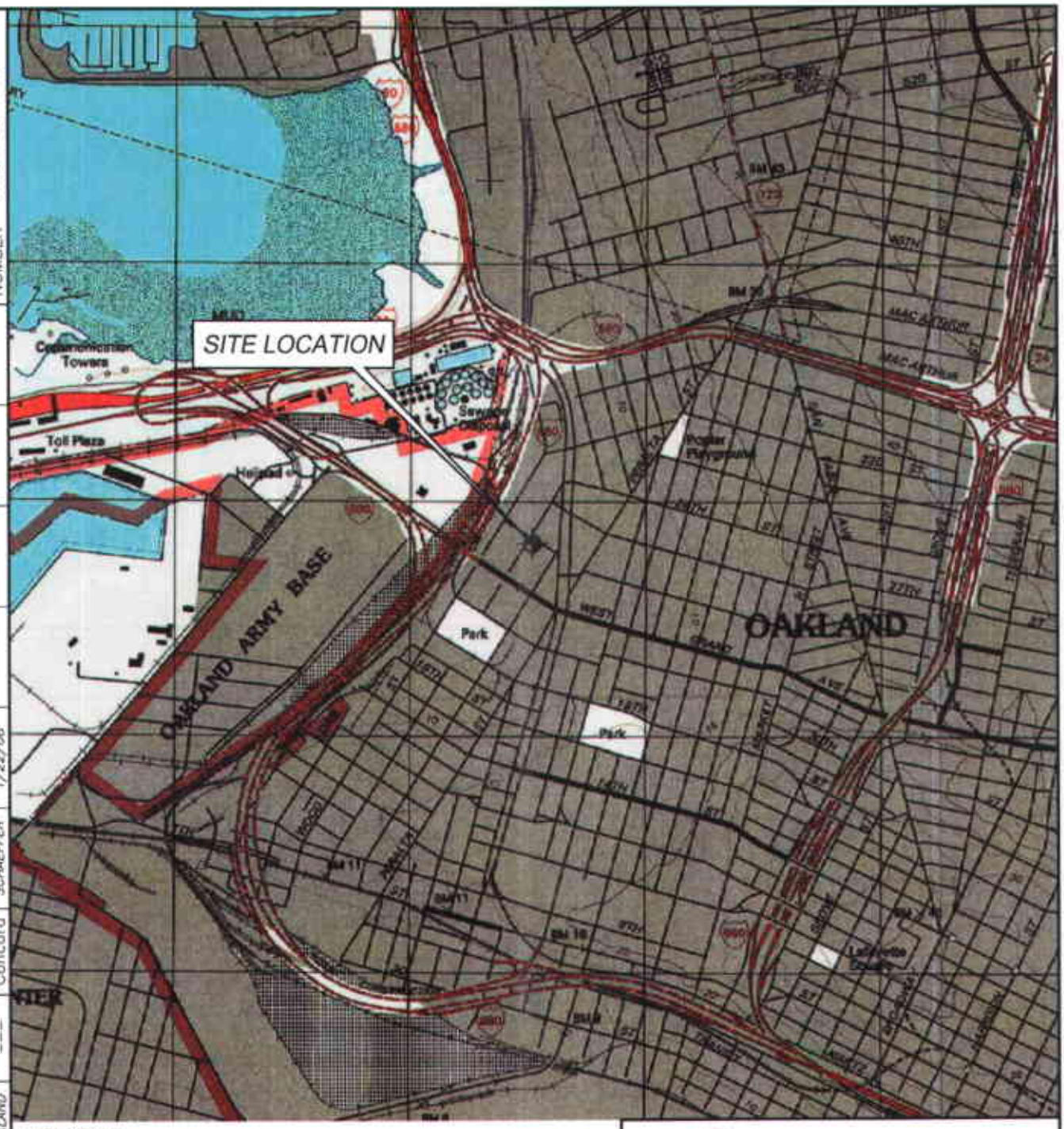


IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
OAKLAND	---	Concord	SCHAEFFER 1/22/08			128139-A1

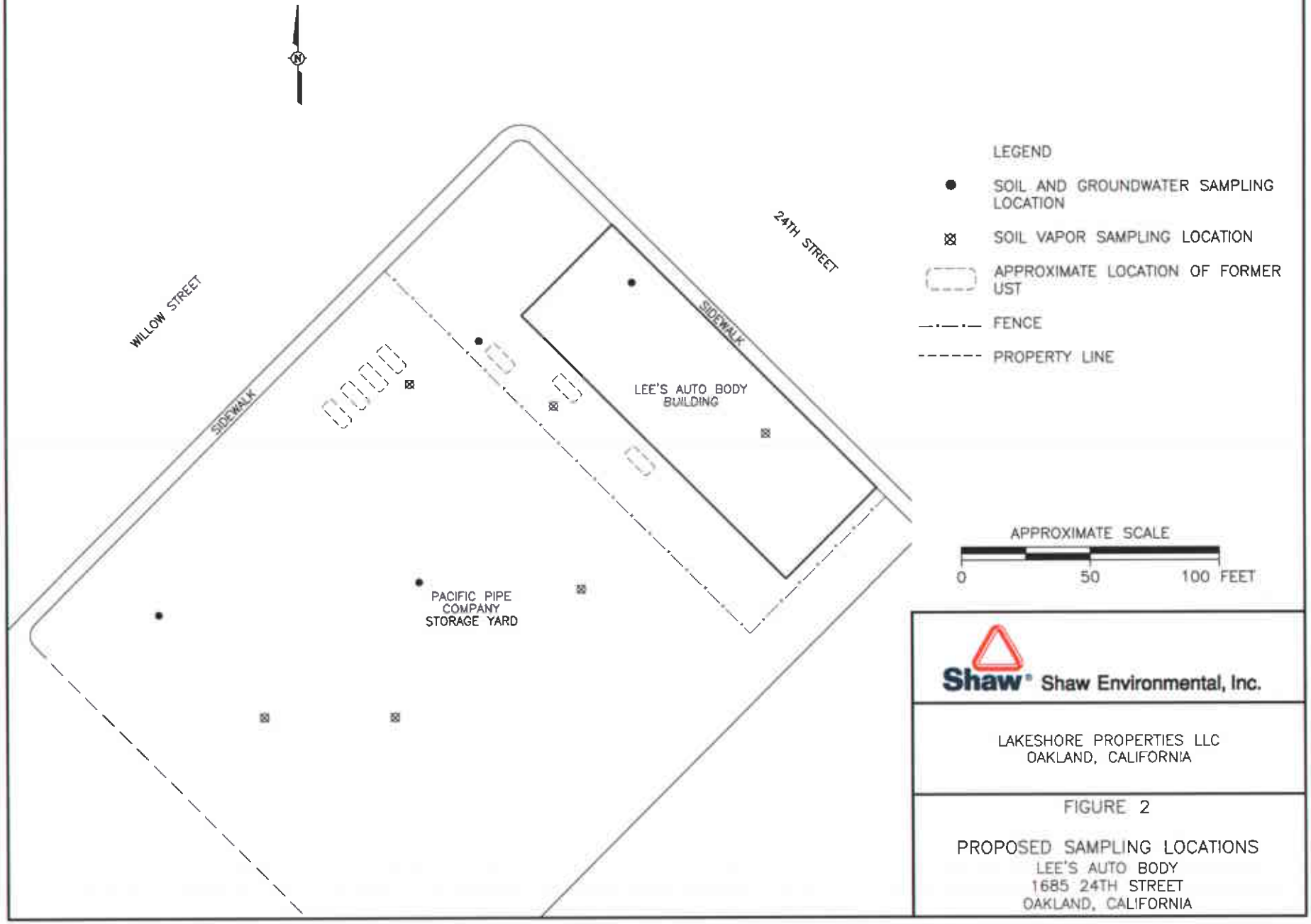
Shaw® Shaw Environmental, Inc.

LAKESHORE PARTNERS LLC
OAKLAND, CALIFORNIA

FIGURE 1

SITE VICINITY MAP
LEE'S AUTO BODY
1685 24TH STREET
OAKLAND, CALIFORNIA

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
---	---	Concord	SCHAEFFER	1/22/08					128319-A2



Shaw® Shaw Environmental, Inc.

LAKESHORE PROPERTIES LLC
OAKLAND, CALIFORNIA

FIGURE 2

PROPOSED SAMPLING LOCATIONS
LEE'S AUTO BODY
1685 24TH STREET
OAKLAND, CALIFORNIA