LOWNEYASSOCIATES
Environmental/Geotechnical/Engineering Services

Mountain View
Oakland
Pleasanton

June 9, 1997
1260-1

Only a proposal of alternative approaches

Mr. Kevin Tinsley
ALAMEDA COUNTY ENVIRONMENTAL HEALTH SERVICES AGENCY
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: WORK PLAN FOR SOIL AND GROUND WATER QUALITY EVALUATION 726 HARRISON STREET OAKLAND, CALIFORNIA

Reviewed 7/8/97

Dear Mr. Tinsley:

Introduction

We are pleased to present this work plan to evaluate soil and ground water quality down-gradient of the former underground storage tank excavation at 726 Harrison Street in Oakland, California. This work plan was prepared on behalf of Mr. Kin Chan, who is the current property owner.

SCOPE OF WORK

File Review

We will initially review information on-file with the Alameda County Environmental Health Services Agency for the fuel leak sites adjacent to 726 Harrison Street in order to evaluate ground water flow direction. The information obtained will assist with the appropriate placement of the exploratory boring discussed below.

Pre-Field Activities

Prior to beginning work a drilling permit application will be submitted to the Zone 7 Water Agency for their approval. We also will contact Underground Service Alert and review available building plans to attempt to locate underground utilities.

129 Filbert Street Oakland, CA 94607-2531 Tel: 510.267.1970 Fax: 510.267.1972 E-mail: lowney@ix.netcom.com

Subsurface Exploration

Our field engineer will direct a subsurface exploratory program, supervise, log, and sample one exploratory boring to ground water. The boring will be located within ten feet, down-gradient of the UST excavation. Ground water is anticipated to be at a depth of approximately 20 to 30 feet. Soil samples will be collected at approximately 5-foot depth intervals and monitored for volatile hydrocarbons with an Organic Vapor Meter (OVM). Drilling protocol is presented in Attachment A.

Ground Water Sampling

To evaluate ground water quality, the boring will be extended into the water-bearing zone and a grab sample will be collected. After completion, the boring will be backfilled with cement grout to surrounding grade.

Laboratory Analyses

Based on the field observations and OVM readings, two soil samples and one ground water sample from the boring will be analyzed at a state certified laboratory for total petroleum hydrocarbons as gasoline (TPHg), plus benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl-tertiary-butyl-ether (MTBE) (EPA Test Method 8015/8020). All analyses will be performed on a standard one-week laboratory response time.

Soil Cuttings and Steam Cleaning Rinsate

Soil cuttings and steam cleaning rinsate will be stored on-site in EPA approved drums. After receipt of the analytical results, disposal of these materials will be evaluated.

Report

We will prepare a reconnaissance report presenting the results of our investigation and summarizing the conclusions and recommendations. Our conclusions and recommendations will be based on readily available information, observations of existing conditions, and our interpretation of the analytical data.

The report will include a site plan showing all sampling locations and copies of all permits and laboratory reports.

If you have any questions regarding this work plan, please call and we shall be glad to discuss them with you.

Very truly yours,

LOWNEY ASSOCIATES

Brock A. Foster
Environmental Engineer

Peter M. Langtry, C.H.G.
Associate
Environmental Geologist

SIF:BAF

Copies: Addressee (1)
Mr. Kin Chan (1)

Attachments: Protocol

OAK, 1260-1.WP

ATTACHMENT A
PROTOCOL

Precision Borings

The boring would be advanced by hydraulically driving a double-walled sampling probe into the ground. The 1.5-inch diameter inner sleeve is used to retrieve continuous soil samples, while the 2-inch outside diameter outer sleeve is used as a drive casing.

The soils encountered in the borings would be logged using the Unified Soil Classification System (ASTM D-2487). Soil samples would be collected in 1.5-inch diameter liners. The ends of the liners would be covered with aluminum foil and plastic end caps and securely taped. The samples then would be placed on ice for transportation to the state certified laboratory.

Soil from each sampling interval would also be placed in a Ziplock plastic bag and, after several minutes, the head space within the bag would be monitored for volatile hydrocarbons using an organic vapor meter (OVM). These reading would be recorded on the boring logs.

Ground Water Sampling

The exploratory boring would be drilled to the anticipated depth of the ground water table. If ground water is encountered, a grab sample would be collected using a clean Teflon bailer. Ground water samples would be collected in the appropriate bottles, labeled, and placed on ice for transportation to the state certified laboratory.

Sampling Equipment Decontamination

All sampling equipment would be thoroughly cleaned with an aqueous solution of tri-sodium phosphate and distilled water or steam cleaned. The cleaning procedure would be repeated between each sampling location.