

Alameda County
JAN 30 2006
Environmental Health

October 25, 2005

Mr. Hernan Gomez
City of Oakland Fire Services Agency – Office of Emergency Services
1605 Martin Luther King, Jr. Way
Oakland, California 94612

Subject: Workplan for Initial Site Characterization
2836 Union Street, Oakland, California

Dear Mr. Gomez:

INTRODUCTION AND BACKGROUND

On behalf of the property owner (Mr. Larry Wadler), Stellar Environmental Solutions, Inc. (SES) is providing to the City of Oakland Fire Department this workplan for initial site characterization at the referenced property. The objective of the work is to evaluate residual soil and groundwater contamination associated with a former 10,000-gallon gasoline UST that was removed from the property in July 1998 under City of Oakland Fire Department oversight. We understand from Mr. Wadler that you recently indicated that your agency would oversee this initial phase of investigation, and based on the findings, either issue a case closure or refer the case to the Alameda County Environmental Health Department.

A soil sample collected beneath the dispenser contained 1,200 mg/kg gasoline and detectable concentrations of BTEX compounds. Infiltrating groundwater in the excavation contained 4,200 µg/L gasoline and elevated levels of BTEX and MTBE. The attached Table 1 summarizes the analytical results. The attached figure shows the former UST and sampling locations.

TECHNICAL OBJECTIVES AND PROPOSED SCOPE OF WORK

The objective of the proposed work is to satisfy one of the generally-required regulatory criteria for site closure: characterizing residual soil and/or groundwater contamination. The proposed scope of work is designed to provide initial information on the extent and magnitude of contamination, to evaluate whether additional characterization might be required to evaluate risks associated with the contamination.

Borehole Drilling and Sampling

We propose to advance and sample 4 exploratory boreholes, as shown on the attached figure:

- One borehole will be advanced through the center of the former UFST excavation
- One borehole will be advanced at the former dispenser location
- Two boreholes will be located immediately downgradient (west) of the former excavation and the dispenser.

Each borehole will be advanced to first occurrence of groundwater, likely less than 20 feet below grade. Soils will be continuously cored and geologically logged, and examined for evidence of contamination. We will collect two soil samples per borehole for off-site laboratory analysis, at significant lithologic changes and evidence of contamination. Upon reaching the saturated zone (i.e., water infiltrating the borehole), a “grab” groundwater sample will be collected. Each borehole will then be deepened to a depth at least 3 feet below the bottom of the higher-permeability upper water-bearing zone (i.e., 3 feet into the lower-permeability zone that likely underlies the water-bearing zone and acts as a vertical confining layer).

Attachment A contains our proposed methods and protocols for exploratory borehole drilling and sampling.

Soil and Groundwater Analyses

A California-certified (ELAP) analytical laboratory will complete all laboratory analyses. All soil and groundwater samples will be analyzed for the known (and likely potential) site contaminants of concern, including:

- Total volatile hydrocarbons – gasoline range (TVHg), by EPA Method 8015M
- BTEX and MTBE, by EPA Method 8020

ESTIMATED SCHEDULE

We have scheduled the drilling for November 4, 2005. We will provide the City of Oakland with at least 5 business days notice prior to that date, in case your agency desires to be present. Analytical laboratory results will be completed on normal turnaround (10 working days). The

documentation report will be submitted within approximately 1 week following SES' receipt of analytical results.

TEAM QUALIFICATIONS

Stellar Environmental Solutions, Inc. has completed dozens of similar projects. Our team will consist of the following:

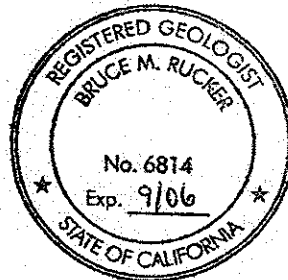
- Stellar Environmental Solutions, Inc. (owner's consultant responsible for overall project coordination, geologic evaluation, sampling, data evaluation, and report certification by a California Registered Geologist);
- Borehole driller with a current C-57 license; and
- Analytical laboratory with a current California ELAP certification.

We trust that this submittal meets your agency's needs. We will contact you in the near future to confirm your receipt of this workplan. In the interim, please contact the undersigned directly if you have any questions.

Sincerely,

Bruce M. Rucker

Bruce M. Rucker, R.G., R.E.A.
Project Manager



Attachments: Figure showing UST layout, previous and proposed sampling locations
Table of UST removal analytical results
Drilling & sampling methods and protocols

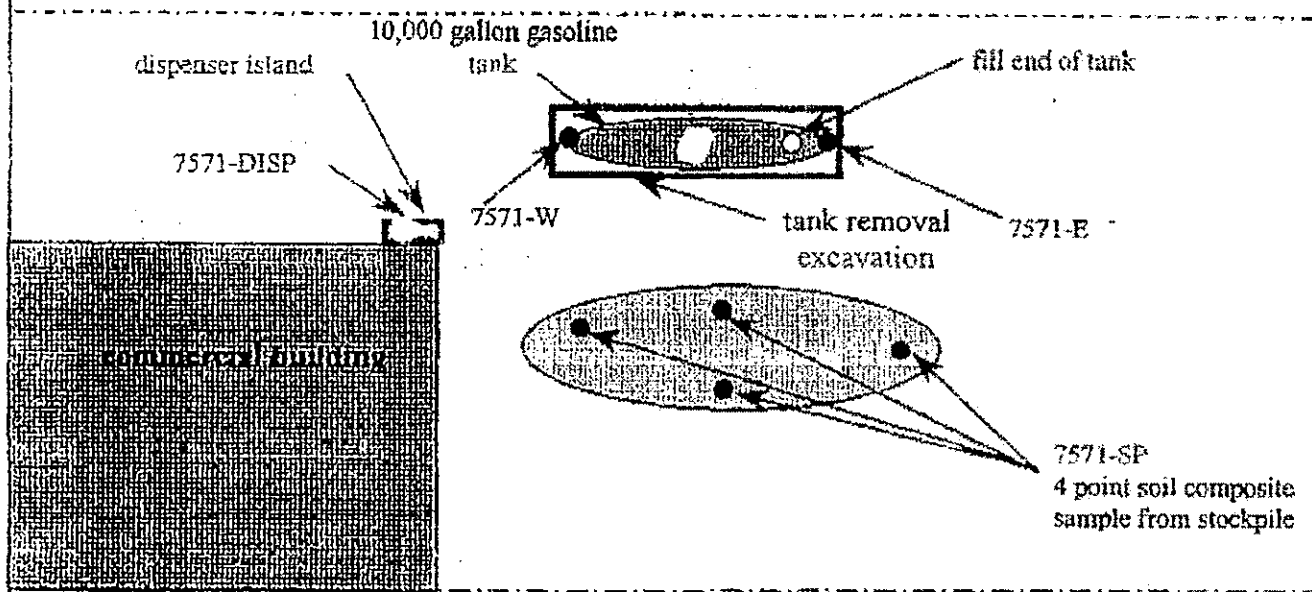
cc: Mr. Larry Waldler – property owner

Stellar Environmental Solutions, Inc.

**FIGURE AND PREVIOUS
ANALYTICAL RESULTS**

TABLE 1
TANK REMOVAL SAMPLE RESULTS - July 1998
 (all soil results are in parts per million - ppm)
 (all water results are in parts per billion - ppb)

SAMPLE I.D.	TPH-G	BTEX	MTBE	Total Lead
7571-SP (stockpile)	3.4	0.008/0.012/0.016/0.027	0.023	not analyzed
7571-E (excavation sidewall)	ND	ND/ND/ND/ND	ND	not analyzed
7571-W (excavation sidewall)	7.2	ND/0.012/0.065/0.021	ND	not analyzed
7571-DISP (dispenser)	2,100	2.8/16/15/94	5.1	not analyzed
7561-GW water in excavation	4,200 (ppb)	15/4/140/170 (ppb)	150 (ppb)	ND



Union Street
Right of Way

commercial
property at
2836 Union
Street

28th Street

GOLDEN GATE TANK REMOVAL
255 Shipley Street
San Francisco, California 94107
Telephone (415) 512 1555 Fax (415) 512 0964

SITE PLAN
2836 Union Street
Oakland, California

Project Number 7571

July, 1998

By: jnc

Not to scale

ATTACHMENT A

Drilling & Sampling Methods and Protocols

ATTACHMENT A
DRILLING & SAMPLING METHODS AND PROTOCOLS

Prior to drilling, SES will prepare a site-specific Health and Safety Plan that will include the proposed drilling activities. We will apply for the requisite borehole drilling permit from Alameda County Public Works Agency, and we will notify Underground Service Alert of proposed drilling for their notification to utilities to mark any potential underground utilities.

The boreholes will be advanced with a Geoprobe™ (direct-push) or equivalent rig that advances approximately 2-inch-diameter sampling rods into undisturbed soil. Soil samples are collected in either acetate or metal sleeves inside the sampling rods. The sleeves selected for off-site laboratory analysis are then capped (with non-reactive plastic caps) and labeled. Depth-specific "grab" groundwater samples will be collected by advancing into undisturbed soil a stainless steel sampling rod with a sacrificial tip and integral well screen. Upon reaching the water table, the sampling string will be raised by approximately 1 foot, dropping the sacrificial tip and exposing the screen interval. The sample will then be collected through new Tygon™ tubing connected to a vacuum pump. The water will then be transferred directly to the appropriate sampling containers.

Samples will be securely sealed in appropriate containers, placed in an ice chest with ice at approximately 4 degrees C., and transported to the analytical laboratory under chain-of-custody record.

Waste soil (unused samples) will be temporarily containerized on-site in labeled, 5-gallon plastic pails with sealing tops. This soil will be appropriately profiled and disposed of when it has been determined that no further waste soil will be generated, or will be combined with any future generated waste soil from subsequent investigation phases.