RO2612

STELLAR
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GEOSCIENCE & ENGINEERING CONSULTING

November 4, 2005

Mr. Jerry Wickham
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Technical Workplan for Initial Site Characterization
Del Valle Regional Corporation Yard
6999 Del Valle Road, Livermore, California
Fuel Leak Case No. RO0002612

Dear Mr. Wickham:

INTRODUCTION

On behalf of the property owner (East Bay Regional Park District), Stellar Environmental Solutions, Inc. (SES) is providing to Alameda County Health Care Services Agency (Alameda County Health) this technical workplan to conduct initial site characterization associated with a former underground fuel storage tank (UFST). This workplan responds to Alameda County Health's letter, dated September 30, 2005, which requested this investigation.

The site is an EBRPD boat rental service yard adjacent to Lake Del Valle. [Note that the address of the site is variously referred to as 6999 Del Valle Road (by Alameda County Health) and 7000 Del Valle Road (in the UFST removal report).] The former UFST is located approximately 250 feet east of the lake shoreline, at an elevation of approximately 40 to 60 feet above the lake surface.

Figure 1 shows the site location. Figures 2 and 3 are site plans showing the location of the former UFST and drilling area.

BACKGROUND AND PREVIOUS FINDINGS

- One 550-gallon gasoline UFST was removed from the subject property in January 2004.
- A soil sample collected at 12 feet below grade from the center of the UFST excavation contained 0.014 milligrams per kilogram (mg/kg) of methyl *tertiary*-butyl ether (MTBE), and no detectable total petroleum hydrocarbons (TPH) or benzene, toluene, ethylbenzene, and xylenes (BTEX).
- A soil sample collected at 2 feet below grade (below a dispenser line) contained 1.82 mg/kg of gasoline, a trace level of xylenes, and no BTEX.
- The second sample collected at 2 feet below the dispenser line contained no contamination.
- Lead was not present at concentrations of concern.
- Neither lead scavengers (EDB and EDC) nor fuel oxygenates (ETBE, TAME, DIPE, TBA, and ethanol) were detected in any of the samples.
- No groundwater samples were collected, and the depth to groundwater is unknown.

Table 1 summarizes the analytical results.

TECHNICAL OBJECTIVES

The objective of the proposed work is to evaluate residual soil and/or groundwater contamination associated with the former UFST. The ultimate goal is to evaluate whether Lake Del Valle has been, or could be at some point, adversely impacted by the detected contamination.

SES proposes a limited Phase II exploratory borehole drilling and sampling program in the immediate vicinity of the former UFST excavation. The findings of the proposed investigation will be discussed in a comprehensive report suitable for submittal to Alameda County Health. The report will make recommendations for addressing the residual contamination, as warranted by the data.

SCOPE OF WORK

The scope of work is presented in the following five tasks: 1) Pre-fieldwork Planning; 2) Borehole Drilling and Sampling; 3) Laboratory Analyses; 4) Report Preparation; and 5) Electronic Reporting.

Task 1: Pre-fieldwork Planning

This task encompasses the pre-fieldwork elements of the project, including:

- Scheduling and coordinating the drilling and analytical laboratory subcontractors;
- Marking the site for the required Underground Service Alert (USA) utility clearance, and making the required notification to USA;
- Applying for the requisite borehole drilling permit from the Zone 7 Water Agency;
- Overall program management, including coordinating our onsite activities with EBRPD.

Task 2: Borehole Sampling

SES proposes to install and sample the following five (5) exploratory boreholes:

- **BH-01.** Located midway between the previous UFST excavation and the dispenser soil sampling locations. We will collect three soil samples from this borehole, at approximately 10 feet, 15 feet, and the capillary fringe (just above first occurrence of groundwater). We will also collect one grab groundwater sample from this borehole.
- **BH-02** and **BH-03.** Located in the immediate vicinity of the former dispenser. One soil sample will be collected at 2 feet below grade in each borehole.
- **BH-04** and **BH-05.** Located approximately 200 feet to the west (downgradient direction, based on local topography), along the gravel roadway between the service yard and the lake. This is the nearest drilling-accessible downgradient location due to topography. One grab-groundwater sample will be collected from each of the two boreholes.

The boreholes will be advanced with a Geoprobe™ (direct-push) rig that advances approximately 2-inch-diameter sampling rods and collects continuous core soil samples. The drilling and sampling will be conducted by a licensed drilling subcontractor under SES's direction. We will measure water levels in each borehole following drilling.

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

Waste soil from the drilling will be containerized in 5-gallon, labeled plastic pails, to be temporarily stored onsite.

Task 3: Laboratory Analyses

A California-certified analytical laboratory will complete the laboratory analyses. The analytical results will be performed at a standard turnaround (2 weeks). The five soil samples and three groundwater samples will be analyzed for the following site chemicals of concern:

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

Task 4: Report Preparation

The methodology and findings of the investigation will be incorporated into a comprehensive documentation report that will contain the following elements:

- Investigation scope, objectives, and site description.
- Summary of UFST removal and previous findings.
- Sampling and analytical protocols used.
- Site map delineating borehole locations.
- Discussion of analytical results in the context of regulatory agency guidelines/criteria.
- Conclusions and, where appropriate, recommendations.
- Technical appendices.

Task 5: Electronic Reporting

In accordance with Alameda County Health and State of California requirements, we will make electronic uploads of investigation data and the documentation report, as follows:

Alameda County Health. We will upload an electronic copy of the report to Alameda County Health's Electronic Report Upload "ftp" system, and then email a confirmation of the upload.

State Water Resources Control Board. We will conduct the following activities related to the State Water Board's GeoTracker system:

- "Claim" the facility on behalf of EBRPD (obtaining electronic password authorization from GeoTracker, and requesting that the facility be assigned to SES for our uploads).
- Upload "field point IDs" (i.e., the borehole names).
- Upload the "EDD" (electronic data deliverable) (i.e., the laboratory analytical data).

- Upload an electronic copy of the report.
- Upload the "GeoMap" (i.e., the figure showing the borehole locations).
- Retain documentation of the above uploads.

[Please note that we can comply with this requirement only after Alameda County Health has entered the case into the GeoTracker system. We would greatly appreciate your notifying us when this has been completed.]

SCHEDULE

Drilling has been scheduled to begin at 8:00 a.m. on November 16, 2005. We anticipate that the technical documentation report will be submitted to Alameda County Health in mid-December 2005.

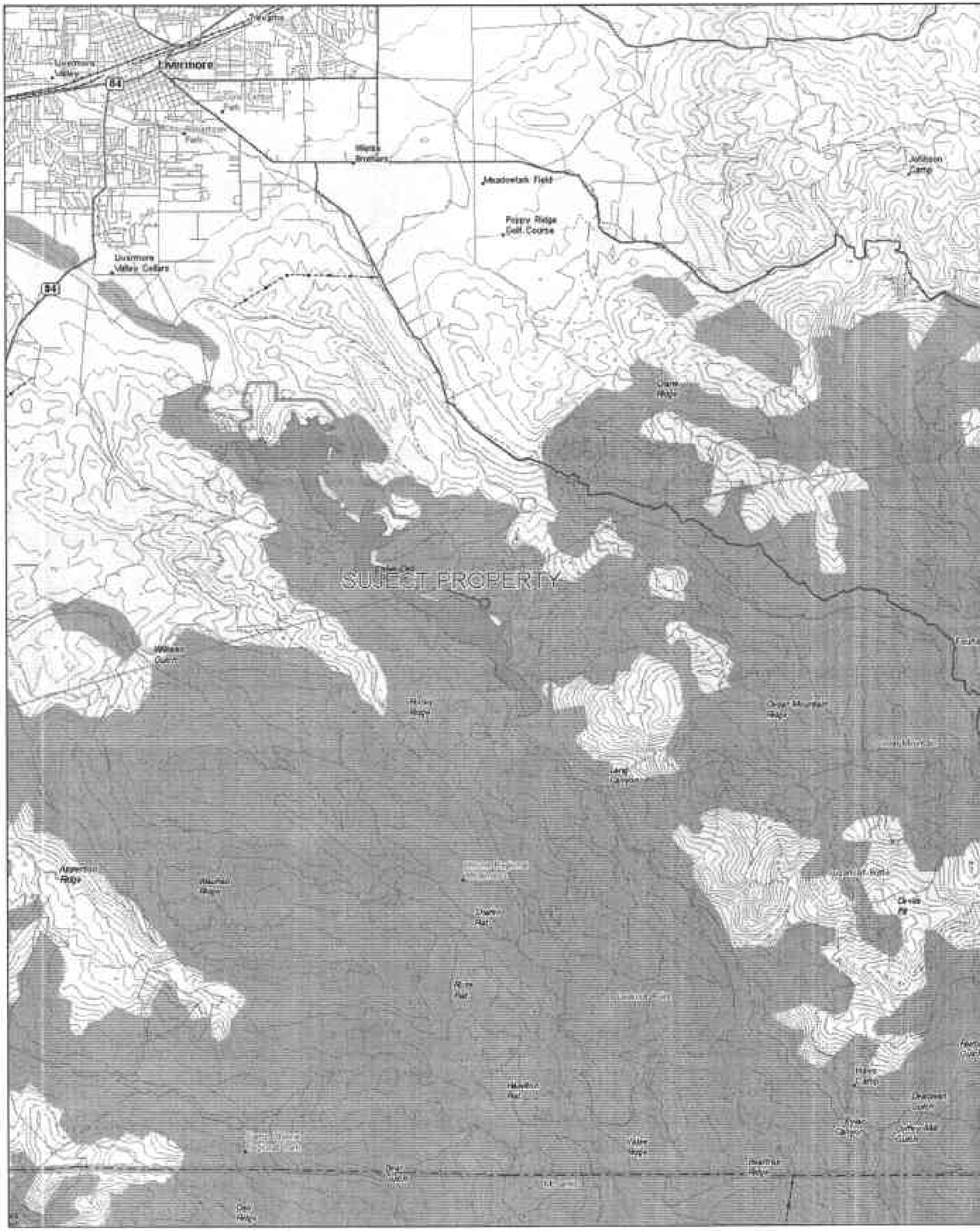
Please contact the undersigned directly if you have any questions.

Sincerely,

Stellar Environmental Solutions, Inc.

Richard S. Makdisi, R.G., R.E.A.
Principal
cc: Mr. Stephen Gehrett – East Bay Regional Park District

FIGURES AND TABLE



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096   3000 ft Scale: 1 : 100,000 Detail: 11-0 Datum: WGS84

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SITE LOCATION ON U.S.G.S. TOPOGRAPHIC MAP

6999 Del Valle Rd,
Livermore, CA

By: MJC | SEPTEMBER 2005

Figure 1

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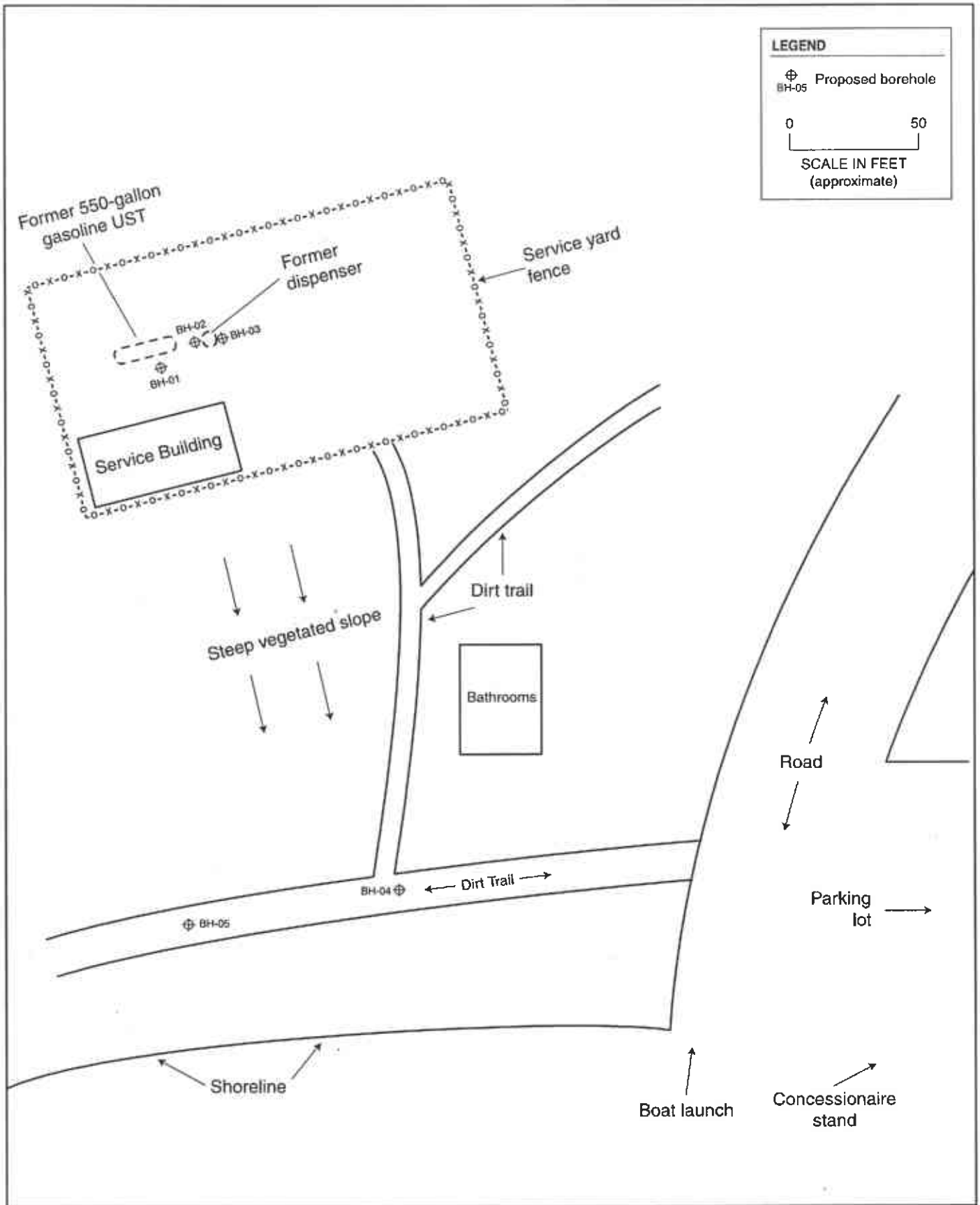
2005-67-01



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SITE PLAN AND PROPOSED SAMPLING LOCATIONS

Lake Del Valle Boat Launch
Service Yard, Livermore, CA

By: MJC | NOVEMBER 2005

FIGURE 2

★ Stellar Environmental Solutions, Inc.
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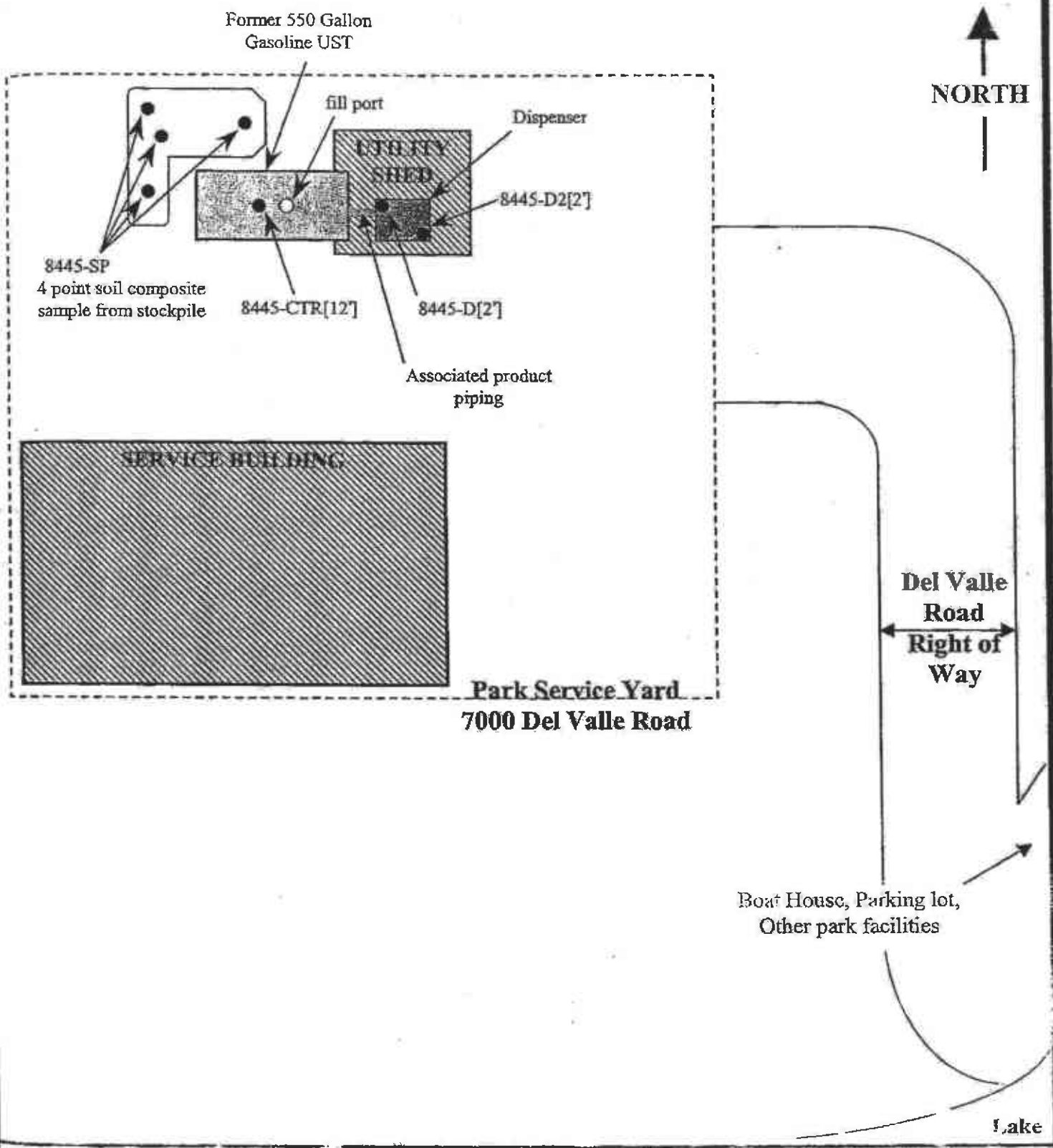
2005-67-02



GOLDEN GATE TANK REMOVAL, INC 255 Shipley Street San Francisco, California 94107 Telephone (415) 512-1555 Fax (415) 512-0964			**SITE PLAN** Commercial Property 7000 Del Valle Road Livermore, California 94550	
Project Number 8445	January 2004	By: April F.	Not to scale	Figure 3

Table 1
Gasoline UFST Removal Soil Analytical Results – January 2004
East Bay Regional Park District's Lake Del Valle Boat Launch Service Yard
6999 Del Valle Road, Livermore, California

Sample I.D.	Sample Depth (feet)	Sampling Location	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
8445-CTR[12']	12	Center of UFST excavation	*<0.5*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	0.014	9.0
8445-D[2']	2	Beneath dispenser line	*<0.5*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	9.39
8445-D2[2']	2	Beneath dispenser line	1.82	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	12.2
8445-SP	—	Stockpile	*<0.5*	*<0.005*	*<0.005*	*<0.005*	*<0.01*	*<0.005*	10.3
Water Board ESLs			**100**	**0.44**	**2.9**	**3.3**	**1.5**	**0.023**	**200**

Notes:

Water Board ESLs = Regional Water Quality Control Board Environmental Screening Levels for shallow soil at residential sites, freshwater receiving body, where groundwater is a potential drinking water source (lowest of all ESLs for this compound).

All concentrations are in mg/kg.

Other contaminants analyzed for and not detected include ETBE, TAME, DIPE, TBA, EDB, EDC, and ethanol.