November 20, 2007

Alameda County Environmental Health Services
Mr. Jerry Wickham
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Additional Site Investigation Workplan**
461 McGraw Avenue, Livermore, California 94550
EIS Project # 717-3C

Dear Mr. Wickham,

On behalf of Whitney Newland, Administrator of the Estate of Crandal Mackey, Environmental Investigation Services Inc. (EIS), is submitting this workplan for additional site investigation at the above referenced site for your approval. The site location is shown on Figure 1.

The groundwater sample collected from newly installed well MW-1 adjacent to excavation DO-3 on November 9, 2007 contained 10 micrograms per liter (µg/L) of tetrachloroethene (PCE). To further assess the soil and groundwater in this vicinity of the site, EIS proposes to drill and sample eight soil borings around monitoring well MW-1 (Figure 2). The site investigation activity will consist of advancing the eight soil borings to depths of approximately 16 feet below ground surface (approximately 5 feet below first encountered groundwater) to collect soil and groundwater samples. The soil will be field screened for volatile organic compounds (VOCs) using a photoionization detector (PID). If evidence of solvent or hydrocarbon contamination is observed either from the PID readings or by visual observations, a sample of the potentially impacted soil will be retained and submitted for laboratory analysis. Up to one soil sample per boring from the vadose will be submitted for laboratory analysis. One grab groundwater sample will be collected from each soil boring. All but one of the eight groundwater samples will be analyzed immediately by the laboratory; the last sample will be held pending results of the other samples. These tasks are further detailed below.

EIS will use the site-specific health and safety plan (SSP) already prepared describing potential hazards at the site (including potential contaminants and their characteristics and health effects), personnel responsible for site safety, personal protective equipment, emergency phone numbers, and the location of the nearest hospital, etc.

EIS will contract with a C-57 licensed contractor to install nine soil borings to depths 5 feet below first-encountered groundwater using truck-mounted Geoprobe™ direct-push technology. Soil cores will be obtained from each borehole using a 4-foot long Geoprobe™ Macro-Core sampler fitted with acetate liners. After each sample drive, the sampler will be removed from the borehole, the acetate liner removed, and the sampler decontaminated by washing it using non-

phosphate detergent and triple-rinsing it before fitting it with a new acetate liner. The sampler will then be inserted back into the borehole and hydraulically pushed through the next sample interval.

The soil encountered in each borehole will be logged using the Unified Soil Classification System (USCS) as a guide, and for relative moisture content, odor, and other observable characteristics. Soil encountered in the boreholes will also be monitored for the presence of VOCs using a PID.

For all eight of the soil borings, grab groundwater samples will be collected either by installing temporary well screens or using Hydropunch^{TM} device. The grab groundwater samples will be sealed within EPA-approved containers provided by the analytical laboratory. The water samples will be labeled, logged onto a chain-of-custody form, and transported on ice to a California certified analytical laboratory.

The soil samples collected from the borings will be analyzed by the following methods:

- **Environmental Protection Agency (EPA) Method 8015M for total petroleum hydrocarbons as** diesel (TPH-d) and for total petroleum hydrocarbons as oil (TPH-o)
- EPA Method 8260B for volatile organic compounds (VOCs) and total petroleum hydrocarbons as gasoline (TPH-g)

The grab groundwater samples will be analyzed by the following methods:

- **EPA Method 8015M for TPH-d and TPH-o**
- EPA Method 8260B for VOCs, and TPH-g

All soil borings will be backfilled to grade with neat cement grout. All activities described in this workplan will be included in the final report along with other site activities within three weeks of receipt of laboratory results.

Please call Peter Littman at 408-871-1470 if you have any questions regarding this work plan.

Sincerely,

Environmental Investigation Services, Inc.

Panindhar R. Krishnamraju, Ph.D.
Hydrogeologist

Allen Waldman, P.G. #6323
Project Geologist

Attachments:
Figure 1 – Vicinity Map
Figure 2 – Proposed Soil Boring Location Map

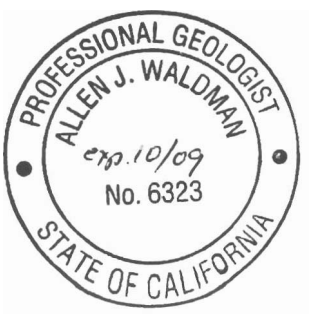
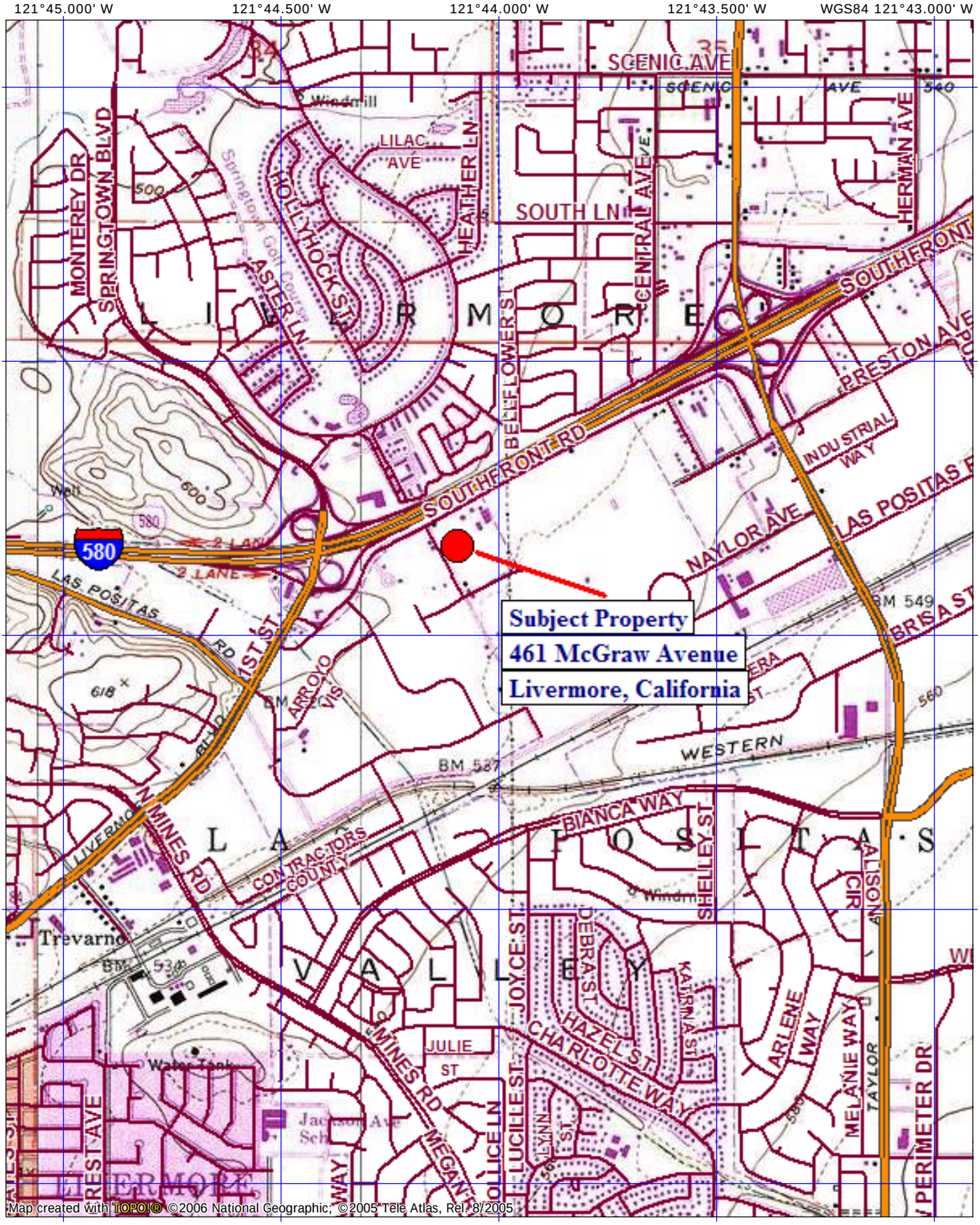
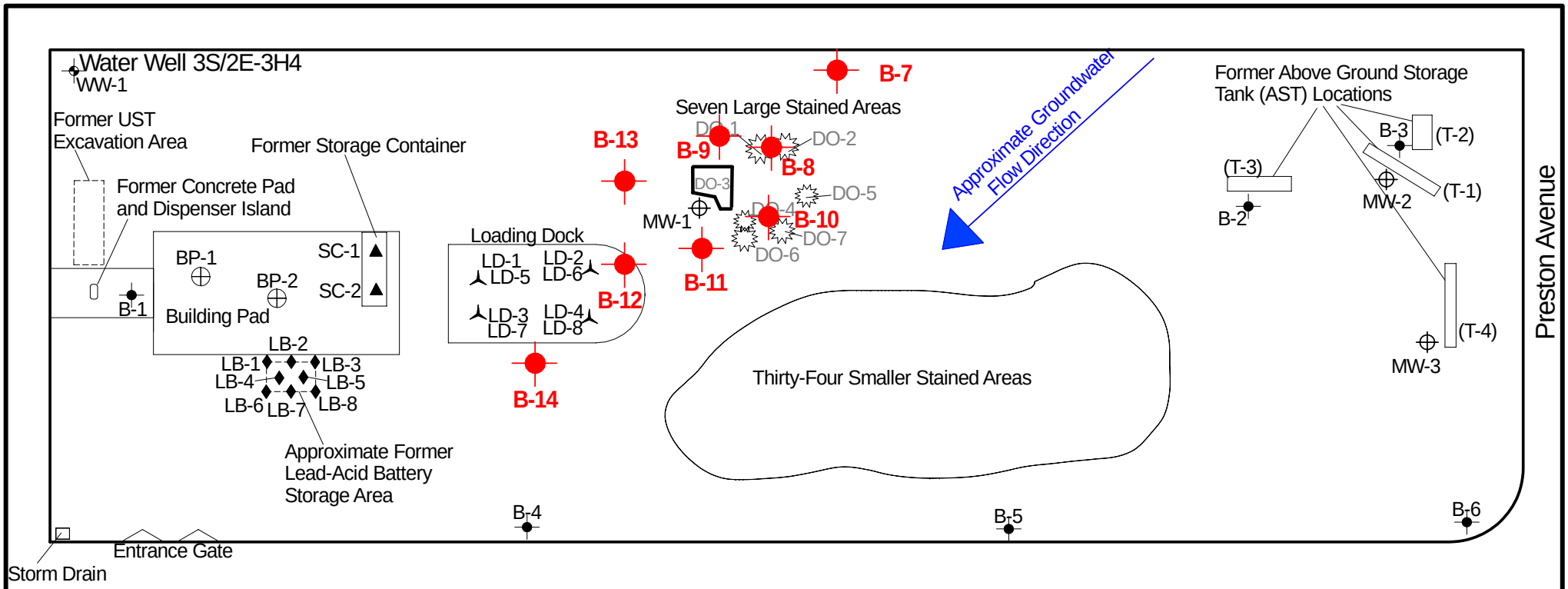


Figure 1 : Site Location Map





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Scale:
1" = 60'
0 60

LEGEND

- Water Well
- WW-1 Well Water Sample
- B-4 Soil Boring
- BP-2 Building Pad Sample
- LB-1 Former Lead-Acid Battery Storage Area Sample
- DO-7 Large Petroleum Hydrocarbon-Stained Area
- LD-4 Loading Dock Sample
- SC-2 Storage Container Sample
- MW-1 Monitoring Well Location
- B-10 Proposed Soil Boring Location

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Figure 2 Proposed Soil Boring Location Map
461 McGraw Avenue
Livermore, California