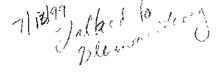
· VOP 147





July 7, 1999

PROTECTION 99 JUL 12 PM 3: 06

LIMINUMINEMIAL

Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Re: Shallow Ground-Water Sampling Results and Addendum to Additional Ground-Water Investigation Workplan, 1600 63rd Street, Emeryville, California

Dear Ms. Hugo:

This letter provides the results of shallow ground-water sampling conducted on May 14, 1999 at the five Site monitoring wells located at 1600 63rd Street in Emeryville ("the Site"). The ground-water sampling was conducted in accordance with the Additional Ground-Water Investigation Workplan ("the Workplan") dated February 23, 1999, as approved with modifications in the Alameda County Health Care Services Agency (ACHCSA) letter to Mr. Dan Nourse of 1600 63rd Street Associates, Inc. dated April 29, 1999. Based on the ground-water sampling results, additional ground-water investigations are proposed and are presented in this letter as an Addendum to the Workplan.

Ground-Water Sampling Results

Ground-water samples were collected from shallow monitoring wells MW-1 through MW-5 to confirm previous monitoring results. The ground-water samples were submitted to Chromalab, Inc. for the following analyses: TPH characterized as gasoline, diesel and motor oil using EPA Method 8015/5030; BTEX compounds using EPA Method 8020; volatile organic compounds (VOCs) using EPA Method 8010; semi-volatile organic compounds (SVOCs) using EPA Method 8270; polychlorinated biphenols (PCBs) and pesticides using EPA Method 8080; and MTBE using EPA Method 8260. Monitoring well locations are shown in Figure 1; sampling results are summarized in Table 1.

TPH and xylenes were the only compounds detected in the ground-water samples (Table 1). The TPH results were reported as diesel in the samples from wells MW-1 through MW-3; however, the laboratory indicated that the "hydrocarbon reported does not match the pattern of our Diesel standard." Floating product was observed and sampled from well MW-2. The product sample from well MW-2 was sent by Chromalab, Inc. to Friedman & Bruya, Inc. laboratory for further hydrocarbon identification analysis. The laboratory results from Friedman & Bruya, Inc. indicate "The patterns displayed by these peaks are indicative of degraded Bunker C or crude oil."

Proposed Addendum Ground-Water Investigations

Based on the results of recent ground-water sampling indicating floating product in well MW-2, additional shallow ground-water investigations are recommended to assess the extent of petroleum hydrocarbons and floating product in the vicinity of well MW-2. Additional investigations are proposed to collect ground-water grab samples from 5 locations adjacent to well MW-2 (Figure 1). The sampling locations shown in Figure 1 are contingent upon access limitations (i.e., site features, utilities) and final locations may be moved to the closest accessible location. The ground-water samples will be submitted



to a California state-certified laboratory for analysis TPH as diesel and gasoline using EPA Method 8015/5030 and BTEX compounds using EPA Method 8020.

The ground-water samples are proposed to be collected from temporary borings drilled using portable direct push or GeoprobeTM drilling equipment. Based on previous data collected in the Site vicinity, we anticipate that the depth to ground water at the Site is approximately 5-feet below grade. Ground-water grab samples will be collected from borings drilled to approximately 5- to 10-feet below the groundwater surface (i.e., 10- to 15-feet below grade). Ground-water grab samples will be collected from the borings using a Teflon or stainless steel bailer lowered into temporary PVC well casing installed in the borehole. The temporary PVC well casing will be screened across the ground-water surface and will stand overnight prior to sampling to allow product to enter the casing, if present. The ground-water samples will be placed in a chilled cooler immediately after collection for transport to the laboratory. In the event that a ground-water grab sample cannot be collected from the boring due to the presence of low permeability sediments, a soil sample will be collected during drilling from slightly below the soil/ground-water interface and sent to the laboratory for petroleum hydrocarbon analysis. After collecting the sample, the borehole will be sealed with a bentonite-grout mix and the ground surface restored using replacement materials (i.e., asphalt patch, concrete).

The additional investigations are recommended to be conducted prior to conducting the CPT deep ground-water investigation described in the Workplan. Conducting the recommended additional investigations will provide data on the shallow ground-water quality in the area of the proposed CPT sampling location (Figure 1).

Schedule

Shallow ground-water investigations are expected to be conducted within two weeks of the ACHCSA's acceptance of this Addendum. Results of these investigations will be reviewed and any recommended modifications to the planned deep ground-water investigations will be discussed with the ACHCSA prior to conducting the CPT investigations. This estimated schedule is contingent upon subcontractor driller availability.

Please call us at (510) 654-3900 should you have any questions or comments regarding this document.

Jeff Hennier, R.G., C.HG.

Associate Hydrogeologist

(413) 549-1056 (Mess)

(415) 460-1561 CA#

Sincerely,

Glenn Leong

Vice President and Senior Scientist

Enclosure

cc:

Dan Nourse, 1600 63rd Street Associates, Inc.

Treadwell + Rollo 50/874-4500 x 554
gmleong@treadwectrollo.com

TABLE 1
GROUND WATER ANALYTICAL RESULTS (ppm)
1600 63rd Street, Emeryville, California

Sample No.	Date Sampled	Notes	Chemical Concentrations Detected (ppm) (2)											
			TPHd	Motor Oil	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xvlenes	PCB's	EPA 8010 Analytes	EPA 8080 Analytes	EPA 8270 Ánalytes	MTBE
SOMA Con	poration													
MW-1	5/14/99		0.2	<0.5	< 0.05	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	ND	ND	ND	<0.005
MW-2	5/14/99	(1)	550	<3,500	210	<2.5	<2.5	<2.5	4.9	<0.5	NA	NA	NA	NA
MW-3	5/14/99	, ,	0.15	<0.5	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	<0.00052	ND	ND	ND	< 0.005
MW-4	5/14/99		< 0.051	< 0.51	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	ND	ND	ND	< 0.005
			< 0.05	<0.5	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00052	ND	ND	ND	<0.005

NOTES:

TPHg = Total Petroleum Hydrocarbons as Gasoline.

TPHd = Total Petroleum Hydrocarbons as Diesel.

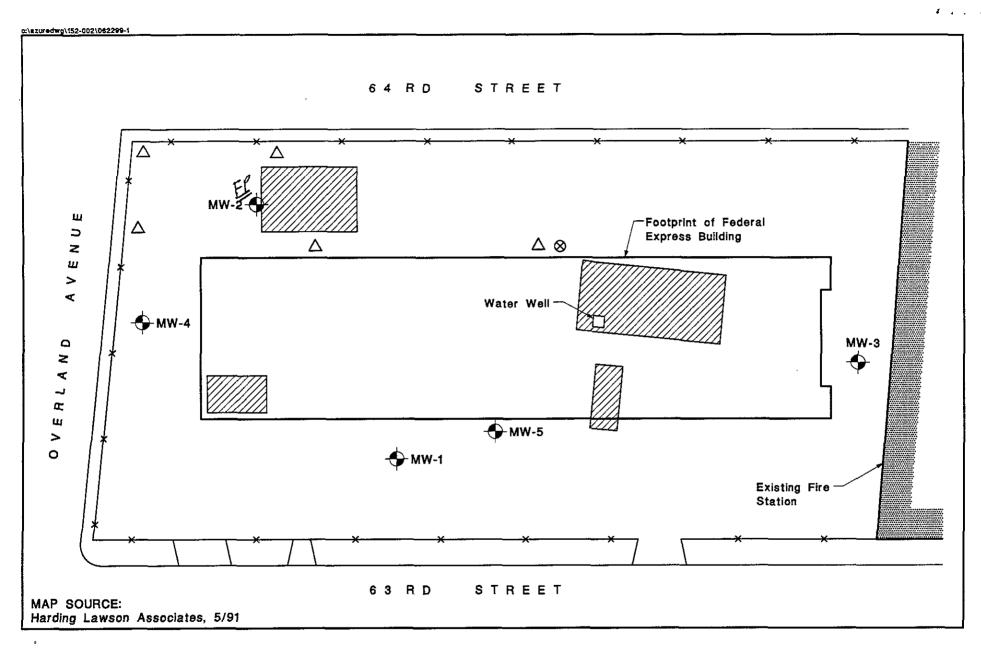
= Below Specified Reporting Limits.

NA = Not Analyzed.

NA = Not Analyzed. ND = Not Detected.

MTBE analyzed using EPA Method 8260.

(1) Product sample collected from MW-2; Chromalab results indicate hydrocarbon reported does not match diesel standard. Friedman & Bruya results indicate "patterns displayed by these peaks are indicative of degraded Bunker C or crude oil"



EXPLANATION: Monitoring Well Proposed Groundwater Grab Sample Location Proposed CPT Sampling Location

