Weiss Associates *Environmental and Geologic Services*

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September 16, 1999

Ms. Susan Hugo
Senior Hazardous Materials Specialist
Alameda County Health Care Service Agency
Department of Environmental Health
Division of Hazardous Materials
1131 Harbor Bay Parkway
Alameda, California 94502

99 SEP 21 PM 2:51
ENVIRONMENTAL PROTECTION

RE: **Proposed Ground Water Investigation and Well Installation**
McGrath Steel Company
6655 Hollis Street
Emeryville, California
WA Job No. 184-1358-01

Dear Ms. Hugo:

On behalf of McGrath Steel Company (McGrath Steel), the owner of the property at 6655 Hollis Street in Emeryville, California, Weiss Associates (WA) is submitting this subsurface investigation workplan addendum for the above referenced site (Figure 1). You requested this additional subsurface investigation during a meeting between WA, McGrath Steel, and the Alameda County Department of Health Services (ACDHS) held on October 1, 1998. Paul Nuti of WA, Denes Turcsany of McGrath, and Susan Hugo of the ACDHS attended the meeting. During the meeting, the results of the initial subsurface investigation and action items for the 6655 Hollis Street property were discussed. The objective of the additional investigation is to define the down-gradient extent of petroleum hydrocarbons in soil or ground water at the site. This workplan is divided into the following sections: Background, Objective, Investigation Strategy, Scope of Work, and Schedule.

Background

In July 1996, McGrath Steel removed two 2,000-gallon underground fuel storage tanks (USTs) from beneath the 67th Street sidewalk adjacent to the McGrath property near the southwest intersection of 67th and Hollis Streets. The USTs formerly contained unleaded gasoline and diesel. Petroleum hydrocarbons were detected in analyses of confirmatory soil samples collected from the

initial UST pits and from the subsequent over-excavation. The Alameda County Health Care Services Agency (ACHCSA) subsequently requested a ground water investigation workplan.[1]

On May 20, 1998, WA drilled three boreholes, B-1, B-2, and B-5, around the former location of the USTs (Figure 2)[2]. Petroleum hydrocarbons were detected only in analyses of soil samples collected from a depth of 12 feet below ground surface (ft bgs) in boring B-5, at concentrations of 27 parts per million (ppm) Total Petroleum Hydrocarbons as Gasoline (TPH-G), 2.8 ppm Total Petroleum Hydrocarbons as Diesel (TPH-D), 0.28 ppm benzene, 0.6 ppm toluene, 0.49 ppm total xylenes, and 3.8 ppm methyl tertiary-butyl ether (MTBE). Petroleum hydrocarbons were detected in analyses of ground water samples collected from borings B-1, B-2, and B-5 at maximum concentrations, in B-5, of 270,000 parts per billion (ppb) TPH-G, 1,600 ppb TPH-D, 21,000 ppb benzene, 34,000 ppb toluene, 6,000 ppb ethyl benzene, 36,000 ppb total xylenes, and 59,000 ppb MTBE.

Objective

The objective of WA's proposed investigation is to assess the extent of dissolved petroleum hydrocarbons in ground water down-gradient of the former USTs located on 67th Street near Hollis Street. WA's proposed investigation strategy and scope-of-work are presented below.

Investigation Strategy

WA's proposed plan is to further delineate the extent of any dissolved petroleum hydrocarbons in ground water down-gradient from the former USTs by installing a ground water monitoring well. WA proposes using a hollow-stem auger drill rig to advance the soil boring below ground water to about 25 to 30 ft bgs, and install a ground water monitoring well. Depth to ground water is estimated to be about 16 to 22 ft bgs, based on the previous subsurface investigation. Based on existing nearby monitoring wells, the estimated direction of ground water flow is to the west. The proposed monitoring well will be located west of former boring B-5, in the anticipated down-gradient direction. Figure 2 depicts the approximate location of the proposed monitoring well (MW-1).

WA will collect soil samples from the boring at a minimum of five-foot intervals for lithologic characterization and possible chemical analysis, using a split-spoon sampler lined with brass tubes. WA will screen soil samples every five feet with a photo ionization detector (PID). WA will select, if any, the sample with the highest PID reading for laboratory analysis. All drilling and sampling equipment will be decontaminated by steam cleaning before and after drilling activities.

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[1] ACHCSA, Letter to Mr. Robert Thomas of McGrath Steel Company from ACHCSA Senior Hazardous Materials Specialist Susan L. Hugo, 2 pages, February 13, 1997.

[2] WA, *Subsurface Investigation Report*, August 5, 1998.

Sampling equipment will be decontaminated between samples using an Alconox™ solution and deionized water rinse.

The monitoring well screen, casing, filter pack, and bentonite and grout seals will be installed through the augers per Alameda County Zone 7 Water Agency guidelines. The well screen and casing will consist of 2-inch diameter schedule 40 PVC and will be screened from about 15 to 25 ft bgs, assuming a static depth-to-water of 16 ft bgs. The well will be thoroughly developed following installation. A ground water sample will be collected following development. Soil cuttings and purged water will be contained on-site in 55-gallon drums pending disposal. WA will analyze the ground water sample and at least one soil sample from the boring for TPH-G, TPH-D, benzene, toluene, ethyl benzene and total xylenes (BTEX), and MTBE.

Scope of Work

To conduct the investigation, WA will complete the following scope of work:

- Prepare a site-specific health and safety plan for workers conducting the investigation, notify Underground Services Alert, and contract a line-locating company to identify underground utility lines in the work area;

- Secure boring and well installation permits from the Alameda County Zone 7 Water Agency, secure an encroachment permit from the City of Emeryville Department of Public Works and notify ACHCSA at least 48 hours prior to beginning the field work;

- Advance a soil boring to about 25-30 ft bgs using a hollow-stem auger drill rig and collect soil samples at 5-foot intervals;

- Install a 2-inch diameter schedule 40 PVC monitoring well with a screened interval of about 15 to 25 ft bgs to specifications required by the Alameda County Zone 7 Water Agency and the City of Oakland Department of Public Works;

- Develop the monitoring well using surging, bailing, and/or pumping methods as required by the Alameda County Zone 7 Water Agency, and collect a ground water sample from the developed well;

- Contract a state-certified analytical laboratory to analyze the water sample and at least one soil sample for TPH-G, TPH-D, BTEX, and MTBE by EPA Methods 8015M and 8020;

- Contain soil cuttings and purged ground water on-site in 55-gallon drums pending profiling for disposal; and,

- Compile the results of the site investigation and prepare an investigation summary report. The report will include a site location map, map of boring and monitoring well locations, descriptions of field procedures, tabulated analytic data, the laboratory certified analytical

reports and sample chain-of-custody forms, and recommendations by a registered engineer or geologist.

Schedule

This investigation will be conducted after receiving your written approval of this workplan. A report will be submitted after all fieldwork is completed and the analytic data is compiled.

Please call the undersigned at (510) 450-6000 if you have any questions or comments regarding this workplan.

Sincerely,
Weiss Associates

Melissa Chamberlain, EIT
Senior Staff Engineer

Michael Zimmerman, P.E.
Project Engineer

Figures

cc: Mr. Robert Thomas, McGrath Steel Company, 6655 Hollis Street, Emeryville, California, 94608
Mr. Denes Turcsanyi, 849 Santa Barbara Road, Berkeley, California, 94707

MJZ:lpn

Figure 1. Site Location Map—McGrath Steel, 6655 Hollis Street, Emeryville, California

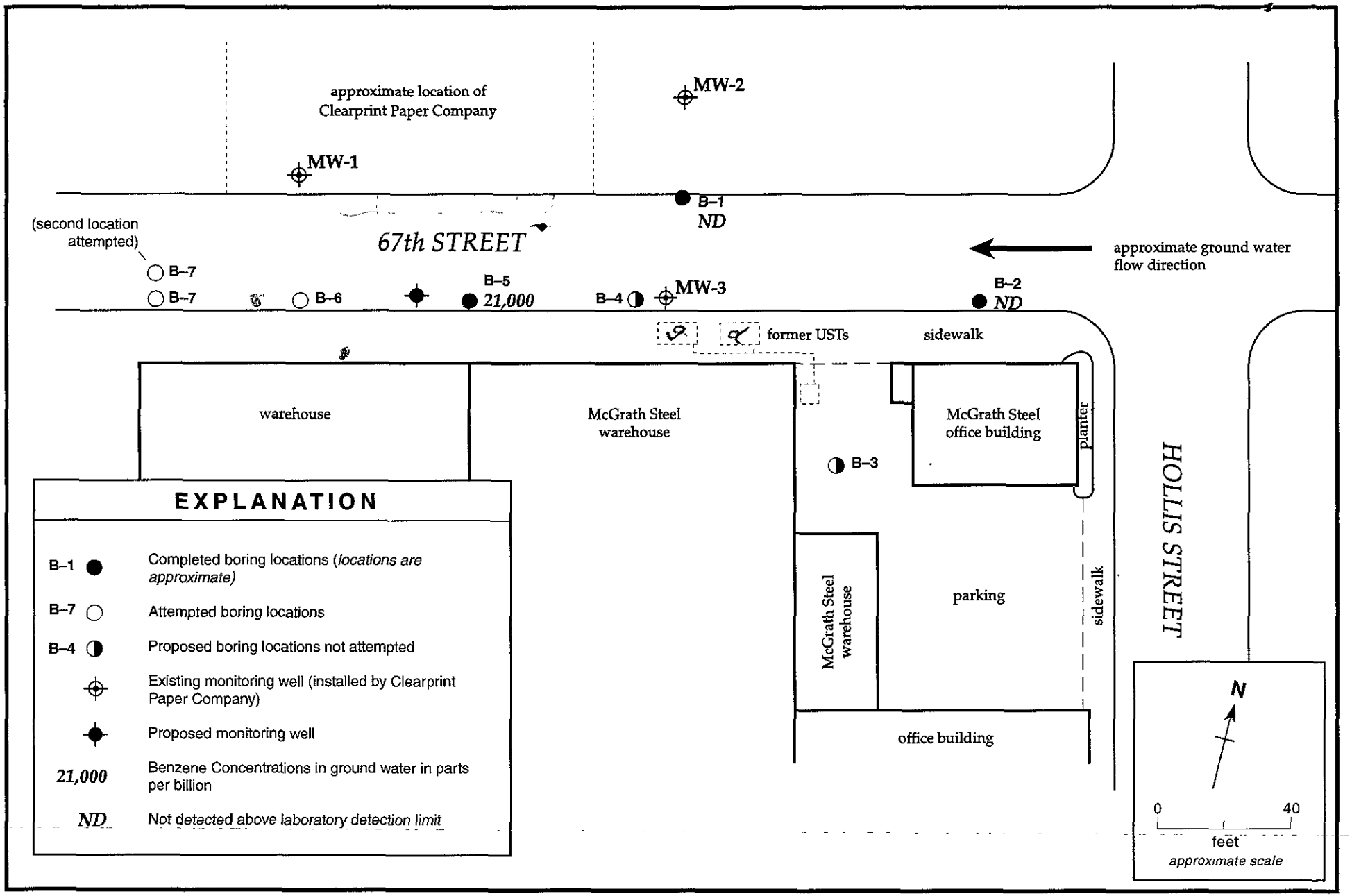

Figure 2. Site Plan—McGrath Steel, 6655 Hollis Street, Emeryville, California