July 31, 2012

Mr. Mark Detterman
Hazardous Materials Specialist
Alameda County Environmental Health Services
Environmental Protection, Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Letter of Transmittal for Additional Site Characterization Workplan Addendum, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608, ACEH Fuel Leak Case No. RO0000063, GeoTracker Global ID No. T0600102099**

Dear Mr. Detterman:

As required in your letters of May 2, 2012, November 19, 2010 and April 7, 2006 regarding the requested workplan for plume delineation and interim remediation at the above-referenced subject site, we submit this transmittal letter and accompanying *Additional Site Characterization Workplan Addendum*.

I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,

MCG Investments LLC,
A California limited liability
Company

Walter F. Merkle
Authorized Agent

AllWest Environmental, Inc.

Specialists in Physical Due Diligence and Remedial Services

530 Howard Street, Suite 300
San Francisco, CA 94105
Tel 415.391.2510
Fax 415.391.2008

ADDITIONAL SITE CHARACTERIZATION WORKPLAN ADDENDUM

Former McGrath Steel
6655 Hollis Street and 1471 67th Street
Emeryville, California 94608

Alameda County Fuel Leak Case # RO0000063; and
GeoTracker Facility Global ID # T0600102099

PREPARED FOR:

Mr. Walter F. Merkle
MCG Investments, LLC
c/o Kay & Merkle
100 Embarcadero - Penthouse
San Francisco, California 94105-1291

ALLWEST PROJECT 12071.23
July 31, 2012

PREPARED BY:

Leonard P. Niles

Leonard P. Niles, PG, CHG
Senior Project Manager

REVIEWED BY:

Marc D. Cunningham, REA
President

AllWest

TABLE OF CONTENTS

FIGURES

APPENDICES

AllWest Environmental, Inc.

Specialists in Physical Due Diligence and Remedial Services

530 Howard Street, Suite 300
San Francisco, CA 94105
Tel 415.391.2510
Fax 415.391.2008

ADDITIONAL SITE CHARACTERIZATION WORKPLAN ADDENDUM

Former McGrath Steel
6655 Hollis Street and 1471 67th Street
Emeryville, California 94608

Alameda County Fuel Leak Case # RO0000063; and
GeoTracker Facility Global ID # T0600102099

I. INTRODUCTION

This workplan describes tasks to further characterize site conditions in the vicinity of former underground storage tanks (USTs) located at the subject site referenced above (Figure 1). This proposed work will be performed in response to a request by Alameda County Health Care Services Agency, Environmental Health Department (ACEH) in their letters of May 2, 2012, November 19, 2010 (revised December 6, 2010) and April 7, 2006 requesting additional characterization of the downgradient extent and distribution of dissolved phase petroleum hydrocarbons and residual free product, and implementation of interim remedial action, at the subject site. This work will be completed after approval and with oversight of ACEH.

The purpose of the proposed work is to further assess the lateral extent of chemicals of concern (COCs), including petroleum hydrocarbons and fuel oxygenates, in soil and groundwater downgradient of the subject site, to redevelop and sample the existing groundwater monitoring well at the subject site, and to implement an interim remedial action program for residual light non-aqueous phase liquid (LNAPL) petroleum hydrocarbons (also known as "free product") at the subject site. The overall goal is to better define the extent of COCs in the subsurface and their impact to human health and the environment, and to reduce the mass of residual free product on the groundwater adjacent to the former underground storage tanks (USTs).

This work plan briefly summarizes the site setting and background including previous investigations conducted at the subject site and the adjacent Clearprint Paper Company leaking underground storage tank (LUST) site at 1482 67th Street, Emeryville, California.

Selected historical soil and groundwater analytical data summary tables and figures regarding previous subsurface investigations at the subject site and the adjacent Clearprint Paper Company site are included in Appendix A from the Subsurface Environmental Corp. (SEC) document titled *Tank Removal Closure Report*, September 16, 1996, the Weiss Associates (WA) documents titled *Site Characterization Report*, dated March 2, 2006, and *Subsurface Investigation Report*, dated August 5, 1998, and the ACEH letter titled *Fuel Leak Site Case Closure, Clearprint Paper Co.*, dated June 27, 2005.

II. PROJECT BACKGROUND

A. Site Location and Description

The subject property is located at the southwest corner of the intersection of Hollis and 67th Streets in a commercial and industrial district of the City of Emeryville, Alameda County, California. A site vicinity map is attached as Figure 1.

The subject property consists of two parcels (Assessor's Parcel Numbers 049-1511-01 and 049-1511-014). Parcel 01, on the southwest corner of Hollis and 67th Streets at the 6655 Hollis Street address, is developed with an approximately 4,100 square foot two-story commercial office building constructed in 1947, and a smaller metal tool shed building. Parcel 14, to the west of Parcel 1 at the 1471 67th Street address, is developed with an approximately 15,246 square foot light industrial warehouse building constructed circa 1946 [Stellar Environmental Solutions, Inc., (Stellar) *Phase I Environmental Site Assessment, 6655 Hollis Street, Emeryville, California*, June 2011 (Stellar, 2011)].

The subject property was last occupied by CMC Rebar. The property currently appears to be vacant, although some equipment and material is still stored in the warehouse and shop. Two USTs formerly present under the sidewalk in front of the warehouse at 1471 67th Street were removed in 1996. A site plan with former UST locations is attached as Figure 2.

B. Site Geology and Hydrogeology

The subject site is located on a generally level parcel at an elevation of approximately 20 feet above mean seal level (msl) with a slight slope to the west towards San Francisco Bay approximately ½ mile to the west. The subject site is located within the Berkeley Sub-Area of the the East Bay Plain Groundwater Basin, an alluvial plain located along the east shore of San Francisco Bay. The subject site lies within the Emeryville Brownfields Groundwater Management Zone, and has been designated as Groundwater Management Zone B by the State of California Regional Groundwater Quality Control Board, San Francisco Bay

Region (SFRWQCB), defined as a zone where groundwater is unlikely to be used as a drinking water resource [SFRWQCB, *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, June 1999 (SFRWQCB, 1999)].

The site is underlain by interbedded silty clay and silty sand to sandy silt to a depth of approximately 24 feet below ground surface (bgs). Depth to groundwater was encountered in previous subsurface investigations at the subject site vicinity at depths of approximately 6.5 to 12 feet bgs. Direction of groundwater flow in the site vicinity is to the west toward San Francisco Bay (Stellar, 2011).

Depth to first encountered groundwater in soil borings during subsurface investigations in the vicinity of the subject site during 1998 and 2005 ranged from approximately 9 to 22.5 feet bgs (WA, 1998 and 2006). Historical depth to groundwater in the Clearprint Paper Company groundwater monitoring well MW-3, located in 67th Street adjacent to the former subject property USTs at 1471 67th Street, has ranged from approximately 7 to 11 feet bgs (WA, 2006 and ACEH *Fuel Leak Site Case Closure, Clearprint Paper Co.*, June 27, 2005). During a site visit on September 14, 2011, AllWest measured depth to water in MW-3 at 11.05 feet below top-of-casing (TOC), with approximately 3 feet of floating free product on top.

C. Site History and Previous Investigations

From the early 1900s until circa 1946, the subject property Parcel 01 was developed as a residence, and Parcel 14 was undeveloped. Between circa 1946 and 1950, the subject property was developed with the current office and light industrial warehouse buildings. The McGrath Steel Company operated a steel warehouse and/or the Pacific Rolling Door Company from circa 1950 until about 2007. The McGrath Steel business was sold and relocated in 2007. CMC Rebar subsequently leased the subject property, but although CMC Rebar still stores some equipment in the warehouse and shop, no fabrication is currently conducted. The current subject property owner is MCG Investments, Inc. (Stellar, 2011).

Two 2,000-gallon single-wall steel USTs were formerly located beneath the 67th Street sidewalk in front of the warehouse building. The diesel and gasoline USTs were installed in 1979 and 1981, respectively. The USTs were removed in July 1996 by Subsurface Environmental Corp. (SEC). No holes were noted in the USTs, but obvious discoloration and petroleum hydrocarbon odor were noted in the surrounding soil. No information was included in the SEC report regarding any product piping removal. Elevated concentrations of petroleum hydrocarbons were detected in confirmatory soil samples following the UST removal. Additional soil was over-excavated to a depth of approximately 12 feet bgs for a total of approximately 70 cubic yards of soil removed. Confirmatory soil samples collected following over-excavation contained a maximum of 15 milligrams per

kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPH-g) and 870 mg/kg total petroleum hydrocarbons as diesel (TPH-d) [SEC, *Tank Removal Closure Report*, September 16, 1996 (SEC, 1996)].

Weiss Associates (WA) conducted a subsurface investigation at the subject property in May 1998. Three soil borings (B-1, B-2 and B-5) were advanced to depths ranging from 16.5 to 24 feet bgs in the vicinity of the former USTs along the north and south sides of 67th Street. Additional borings B-6 and B-7 were attempted but encountered refusal in gravel base rock material at approximately 2 feet bgs and were not sampled. Proposed borings B-3 and B-4 were not attempted.

Petroleum hydrocarbons were detected in soil samples collected only from boring B-5 at 12 feet bgs, at concentrations of 68 mg/kg TPH-g, 120 mg/kg TPH-d, 0.28 mg/L benzene, 0.6 mg/L toluene, 0.49 mg/L xylenes and 3.8 mg/L methyl tert-butyl ether (MTBE). Petroleum hydrocarbons were detected in grab groundwater samples from all three borings, with elevated concentrations of 270,000 micrograms per liter (µg/L) TPH-g, 1,600 µg/L TPH-d, 21,000 µg/L benzene, 34,000 µg/L toluene, 6,000 µg/L ethylbenzene, 36,000 µg/L total xylenes and 59,000 µg/L MTBE detected in boring B-5 (WA, 1998).

WA conducted an additional subsurface investigation in December 2005. Six soil borings (B-8 through B-14) were advanced to a maximum depth of approximately 22 feet bgs in the vicinity of the former USTs and downgradient to the west, along the north and south sides of 67th Street and within the sidewalk on the south side of 67th Street. Low to moderate concentrations of petroleum hydrocarbons were detected in soil samples from all six borings, with maximum concentrations of 500 mg/kg TPH-g, 1.7 mg/kg benzene, 19 mg/kg toluene, 12 mg/kg ethylbenzene and 73 mg/kg total xylenes detected at 15 feet bgs in boring B-13; and 11 mg/kg MTBE detected at 5 feet bgs in boring B-14. Maximum concentrations of 340 mg/kg TPH-d were detected in B-8 at 10 feet bgs, and 6.2 mg/kg total petroleum hydrocarbons as mineral spirits (TPH-ms) were detected at 6.2 mg/kg in B-12 at 5 feet bgs.

Elevated concentrations of dissolved phase petroleum hydrocarbons were detected in groundwater samples from all six soil borings and monitoring well MW-3. Maximum concentrations of 290,000 µg/L TPH-g and 37,000 µg/L total xylenes were detected in boring B-13. Maximum concentrations of 180,000 µg/L TPH-ms, 24,000 µg/L benzene, 39,000 µg/L toluene and 6,500 µg/L ethylbenzene were detected in boring B-12. Maximum concentrations of 12,000 µg/L MTBE were detected in boring B-14 and well MW-3. Maximum concentrations of 100,000 µg/L TPH-d were detected in boring B-11.

Petroleum hydrocarbon concentrations in soil and groundwater exceeded corresponding SFRWQCB Environmental ESLs for commercial/industrial land

use where groundwater is not a potential drinking water resource (SFRWQCB, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Tables B and D, Interim Final November 2007, revised May 2008).

Groundwater sampling of monitoring well MW-3 was attempted by Stellar Environmental Solutions, Inc. in May 2011; however a sample was not collected due to the presence of free product in the bailer. During a site visit on September 14, 2011, AllWest measured a floating free product thickness of approximately 3 feet in MW-3, using a standard electric water level probe and observing product thickness on the tape. A precise product thickness measurement could not be made since an oil/water interface probe was not available. The free product was almost clear in appearance, emitted a gasoline-like odor, and rapidly volatilized from the probe.

Four USTs containing mineral spirits and other petroleum-based solvents (including 2,2,4-trimethylpentane) were removed in 1994 at the adjacent Clearprint Paper Company (Clearprint) site at 1482 67th Street, located to the northwest across 67th Street from the subject site and in the downgradient direction. The USTs were located in the sidewalk along the north side of 67th Street (Figure 2). Remedial activities including soil excavation and groundwater removal were conducted.

A subsequent subsurface investigation conducted in 1995 consisted of three soil borings (SB-1, SB-2 and SB-3) and the installation of three groundwater monitoring wells (MW-1, MW-2 and MW-3). Monitoring well locations are shown in Figure 2. Although elevated concentrations of petroleum hydrocarbons including TPH-g, TPH-d, oil and grease, and benzene, toluene, ethylbenzene and xylenes (BTEX) were detected in confirmatory excavation soil samples and groundwater samples from the borings and wells, these COCs were considered by ACEH to have originated from the upgradient subject (McGrath Steel) site, since these COCs were never used in the Clearprint USTs. Petroleum hydrocarbon and BTEX concentrations in groundwater samples from monitoring wells MW-1 and MW-2 had declined to below detection limits by the final sampling events in 2004. The ACEH issued case closure for the Clearprint site in June 2005 (ACEH *Fuel Leak Site Case Closure, Clearprint Paper Co.*, June 27, 2005).

The Clearprint groundwater monitoring wells MW-1 and MW-2 were destroyed and properly abandoned by Environmental Strategies Consulting, Inc. (ESC) in June 2005 following case closure (ESC, *Groundwater Well Destruction at Former Clearprint Paper Company, Inc. Located at 1482 67th Street in Emeryville, California*, June 23, 2005). Well MW-3 was left in place for monitoring of the subject (McGrath Steel) site.

A summary of data from past investigations is included in Appendix A, including tables and figures from the SEC document titled *Tank Removal Closure Report*,

September 16, 1996, the WA documents titled *Site Characterization Report*, dated March 2, 2006, and *Subsurface Investigation Report*, dated August 5, 1998, and the ACEH letter titled *Fuel Leak Site Case Closure, Clearprint Paper Co.*, dated June 27, 2005.

The ACEH, in their letters of November 19, 2010 (revised December 6, 2010) and April 7, 2006, requested additional characterization of the downgradient extent and distribution of dissolved phase petroleum hydrocarbons and residual free product, and implementation of interim remedial action, at the subject site. Copies of the ACEH letters are included in Appendix B. AllWest submitted an *Additional Site Characterization and Interim Remedial Action Workplan* on September 27, 2011 (AllWest, September 2011) to the ACEH proposing advancement of five downgradient soil borings with collection of grab groundwater samples in addition to free product removal, redevelopment and sampling of existing groundwater monitoring well MW-3.

The ACEH responded to the AllWest *Additional Site Characterization and Interim Remedial Action Workplan* (AllWest, September 2011) in their letter of May 2, 2012, and requested relocation of some of the proposed downgradient borings along 67th Street to optimize the dissolved hydrocarbon plume characterization, additional UST source area characterization of LNAPL (free product) extent in soil and groundwater, characterization of the former fuel dispenser location, additional soil sample collection and analysis, and the installation of at least two additional groundwater monitoring wells to establish groundwater flow direction and monitor the downgradient hydrocarbon plume extent. The ACEH requested a two phase approach to the work, with the soil borings to be performed first with a brief data submittal to the ACEH proposing optimal monitoring well locations, followed by the installation of the groundwater monitoring wells after ACEH approval of proposed locations.

III. PURPOSE AND SCOPE OF WORK

The purpose of this investigation is to further evaluate the extent of LNAPL, adsorbed and dissolved-phase petroleum hydrocarbons in soil and groundwater in the vicinity of the former UST and dispenser source area at the subject property, and in the hydraulically downgradient and cross-gradient directions. AllWest also proposes to implement interim remedial action of free product in the vicinity of the former USTs at the subject site. This proposed work will be performed in response to a request by ACEH in their letters of May 2, 2012, November 19, 2010 (revised December 6, 2010) and April 7, 2006. The scope of work, as proposed, consists of the following tasks:

1) Prepare a written workplan for conducting a subsurface investigation at the site. Submit the workplan to the ACEH for review and concurrence;

2) Prepare a site specific health and safety plan and, if lane closures are necessary, a traffic control plan;

3) Obtain property access agreements for offsite locations if possible, drilling permits from the Alameda County Public Works Agency (ACPWA), and street and/or sidewalk encroachment permits from the City of Emeryville Public Works Department (EPWD);

4) Measure free product thickness in monitoring well MW-3, skim or bail free product to the extent practicable, and re-develop the monitoring well using surging and bailing methods to remove potential bio-fouling and sediment;

5) Following at least 48 hours of recovery, again measure free product thickness in monitoring well MW-3, skim or bail free product to the extent practicable if necessary, purge at least 3 well casing volumes, and collect groundwater samples and a LNAPL (free product) sample if encountered;

6) Engage the service of Underground Service Alert (USA) and a private underground utility locator to locate and clear underground utilities within the proposed investigation area so that the potential of accidental damage to underground utilities will be reduced during the proposed subsurface investigation. Notify the ACEH, ACPWA and facility owners and tenants prior to the start of field work;

7) Retain the service of a C-57 licensed drilling contractor for the advancement of ten Direct Push Technology (DPT) borings (B-15 through B-24) to approximate depths of 20 feet bgs in the vicinity of the former USTs and fuel dispensers, and along 67th Street downgradient to crossgradient of the former USTs;

8) Collect soil samples at continuous intervals from each of the ten proposed DPT borings. Retain three soil samples from each boring for possible chemical analysis. Install temporary PVC well casings and allow water levels to recover before monitoring potential free product. Collect and retain one “grab” groundwater sample from each DPT boring for analytical testing;

9) Maintain samples of all media under chain-of-custody and transport to a Department of Health Services (DHS) certified analytical laboratory for chemical analyses. Analyze two to three soil samples from each source area boring B-20 through B-24, and one composite soil drum sample, for TPH-d and TPH-ms per EPA Method 8015 with silica gel cleanup, and TPH-g, BTEX, fuel oxygenates, and lead scavengers per EPA Method 8260. Analyze two to three soil samples from each downgradient boring B-15 through B-19 for TPH-d and TPH-ms per EPA Method 8015 with silica gel cleanup, and TPH-g and BTEX per EPA Method 8015/8021 (no fuel oxygenate or lead scavenger analysis). Analyze one composite soil drum sample for disposal profiling for LUFT 5 metals (cadmium,

chromium, nickel, lead and zinc) per EPA Method 6010. Archive additional soil samples for possible analysis based on headspace screening and previous analytical results;

10) Analyze one groundwater sample from each boring and monitoring well MW-3 for TPH-d and TPH-ms per EPA Method 8015 with silica gel cleanup, and TPH-g and VOCs (full scan including fuel oxygenates and lead scavengers) per EPA method 8260. A fuel fingerprint analysis will also be performed on the LNAPL (free product) sample from MW-3 per EPA Method 8015;

11) At the completion of drilling remove temporary casings and backfill the DPT borings with a "neat" cement grout slurry, and restore concrete slabs with concrete slurry;

12) Arrange for profiling, transport and disposal of investigative derived waste soil and groundwater at an appropriate disposal facility;

13) Prepare a brief written data submittal presenting a summary of the laboratory analytical data, soil boring logs, and site plan with boring and proposed monitoring well locations. Upload the data submittal to the ACEH FTP site and GeoTracker database for ACEH approval of proposed monitoring well locations;

14) After obtaining ACPWA drilling permits, EPWD encroachment permits, and clearing locations of utilities per steps 3 and 6 above, retain the service of a C-57 licensed drilling contractor for the advancement of two nominal 8-inch diameter soil borings using a truck-mounted hollow stem auger (HSA) rig to approximate depths of 30 feet bgs along 67th Street downgradient to crossgradient of the former USTs. Collect soil samples during drilling at approximately five foot depth intervals for lithologic characterization and laboratory chemical analysis;

15) After reaching the proposed depth, complete the borings as two-inch diameter PVC groundwater monitoring wells (AMW-1 and AMW-2) with anticipated screened intervals of approximately 9 to 29 feet bgs;

16) Develop the new wells using surge block and bailer methods to remove fines and improve hydraulic conductivity with the surrounding formation;

17) Measure groundwater levels and potential LNAPL thickness, purge a minimum of three casing volumes and collect groundwater samples from the two new wells AMW-1 and AMW-2, and existing well MW-3;

18) Analyze one groundwater sample from each new monitoring well AMW-1 and AMW-2, and existing and monitoring well MW-3, for TPH-d and TPH-ms per EPA Method 8015 with silica gel cleanup, and TPH-g and VOCs (full scan including fuel oxygenates and lead scavengers) per EPA method 8260;

19) Survey the new and existing well head elevations and locations by NAD 1983 and NAVD 1988 datum in accordance with State Water Resources Control Board (SWRCB) GeoTracker protocol; and

20) Prepare a written report for the monitoring well installation and previous subsurface investigation describing the field activities, summarizing the laboratory analytical data, presenting investigation findings, and providing conclusions and recommendations. Upload the report to the ACEH FTP site and GeoTracker database.

IV. INVESTIGATIVE ACTIVITIES

A. Permitting and Offsite Property Access

AllWest will attempt to locate the owner of the offsite property occupied by the storage yard located on the north side of 67th Street and obtain an access agreement for the advancement of proposed boring B-18 downgradient to cross-gradient from the subject property (Figure 3). If AllWest is unsuccessful in gaining access to this property, the proposed boring B-18 will be located in the sidewalk along the north side of 67th Street. Proposed boring locations are shown on Figure 3.

AllWest will prepare and submit a drilling permit application to ACPWA for review and approval. AllWest will prepare and submit an encroachment permit application for street and/or sidewalk drilling along 67th Street to the EPWD for review and approval. AllWest will also prepare and submit lane closure permit applications to EPWD if necessary. Upon permit approval, AllWest will notify the ACEH, ACPWA , EPWD, and the subject and adjacent property owners and tenants of the drilling schedule a minimum of 72 working hours in advance to allow scheduling of drilling and grouting inspection.

B. Health and Safety and Traffic Control Plans

AllWest will update the existing site specific health and safety plan prior to mobilizing to the site. A tailgate safety meeting will be given prior to commencing work. All site personnel will be required to review the health and safety plan. If required by EPWD, a traffic control and sidewalk closure plan will be prepared to ensure safety of workers, pedestrians and motorists in the event of traffic lane or sidewalk closures along 67th Street.

C. Groundwater Monitoring Well Free Product Measurement, Removal and Redevelopment

Prior to conducting groundwater monitoring of the existing monitoring well MW-3, AllWest intends to remove as much of the accumulated floating free product (LNAPL) layer as possible. Also, due to the extended period of time elapsed since the last groundwater monitoring event in 2005, AllWest proposes to redevelop monitoring well MW-3 in order to remove accumulated fine sediment from the casing and potential biological growth fouling the screened interval, and. to enhance hydraulic conductivity with the surrounding formation.

Prior to performing redevelopment of groundwater monitoring well MW-3, an electric oil/water interface sounding probe will be lowered into the well casing to measure the depth to the water, depth to well bottom, and thickness of any potential floating free product to the nearest 0.01 feet below TOC. Based on observations made during our site visit on September 14, 2011, depth to groundwater is expected to be approximately 11 feet below TOC, and free product thickness is expected to be approximately 3 feet.

Prior to redeveloping, free product will be skimmed and removed from the well to the extent practicable until only a thin film or sheen remains, using either bailing, vacuum or positive displacement air skimming pump, or passive skimming device methods. A sample of the LNAPL (free product) will be collected in two 40 milliliter (ml) volatile organic analysis (VOA) glass vials treated with hydrochloric acid (HCl). When the free product has been removed until only a thin film or sheen remains, well development will be conducted. The monitoring well will be developed by surging and bailing. Groundwater characteristics, such as water temperature, conductivity, pH, color, turbidity and clarity, will be monitored during well development. Depending on hydrogeologic conditions, approximately 10 to 20 well casing volumes are expected to be removed from the well during development. Following development completion, depth to well bottom and water and free product level recovery rates will be measured with the oil/water interface probe. Well development procedures are included in Appendix C.

D. Groundwater Monitoring Well Sampling

Monitoring well MW-3 will be allowed to stabilize a minimum of 48 hours after development prior to sampling.

Prior to performing purging and sampling of groundwater monitoring well MW-3, an electric oil/water interface sounding probe will be lowered into the well casing to measure the depth to the water and thickness of any potential floating free product to the nearest 0.01 feet below TOC. Prior to purging, any free product accumulated since development will be skimmed and removed from the well to

the extent practicable using either bailing or passive skimming device methods. If present, a sample of the LNAPL (free product) will be collected in two 40 ml VOA glass vials treated with HCl. A new, disposable Teflon™ or polyethylene bailer will be lowered into the well casing and partially submerged. Upon bailer retrieval, the surface water will be retained and examined for any floating product or product sheen. If more than a thin product film or sheen remains, purging and sampling will not be conducted.

When the free product has been removed until only a thin film or sheen remains, well purging will be conducted. After all initial measurements are completed and recorded, a minimum of 3 well volumes of groundwater will purged with a new, disposable Teflon bailer. Groundwater characteristics, temperature, pH and conductivity will be monitored at each well volume interval. Purging will continue until groundwater parameters have stabilized to within 10%. Groundwater sampling procedures are included in Appendix C.

Groundwater sampling will be conducted after water levels have recovered to at least 80% of initial level, recorded prior to purging. Groundwater samples will be collected with a new, disposable Teflon bailer. Upon bailer retrieval, the water will be transferred to an appropriate sample bottle furnished by the analytical laboratory. It is anticipated that two 40 milliliter (ml) volatile organic analysis (VOA) glass vials treated with hydrochloric acid (HCl) will be used for TPH-g, BTEX and fuel oxygenate and additive analysis; and a 1-liter amber glass bottle treated with HCl will be used for the collection of TPH-d and TPH-ms. All sample bottles for volatile organic analysis will have Teflon™ lined septum/caps and be filled such that no headspace is present. The sample bottles will then labeled and placed on ice inside a cooler for transport under chain-of-custody control to the analytical laboratory.

To help prevent cross contamination, all groundwater sampling equipment that comes in contact with the groundwater will be decontaminated prior to sampling. To minimize the possibility of cross contamination, a new disposable bailer will be used to collect each groundwater sample. Sample handling, storage, and transport procedures described in Appendix C will be employed. All investigative derived wastes, soil (drill cuttings) and water (decontamination, development and purge water and free product) will be temporarily stored in a secure location at the subject property in 55-gallon drums, awaiting test results for profiling to determine the proper disposal method.

E. Free Product Interim Remedial Action

Depending on the rate of floating free product (LNAPL) accumulation measured in monitoring well MW-3 following redevelopment and sampling activities, interim remedial action to mitigate free product will be performed as warranted. A passive skimming device may be placed within the well and emptied at

monthly or quarterly intervals depending on rate of product thickness accumulation. Either a canister-type or absorbent sock-type skimmer may be used; typically both of these have a capacity of up to 1 liter of product for a 2-inch diameter skimmer. The free product, or product-soaked "sock" will be emptied from the skimmer into a 55-gallon drum temporarily stored in a secure location at the property pending proper transport and disposal. Drums containing free product are considered hazardous waste and will be transported to a disposal facility within 90 days of accumulation start date (180 days for less than 55 gallons).

If the rate of product accumulation is too great to be handled by a passive skimmer, interim remediation may be performed by monthly skimming using a vacuum truck. The vacuum truck will transport the skimmed product and groundwater directly to an appropriate disposal facility. The interim remedial method chosen will be based on field measurements of free product thickness and recovery rate.

F. Underground Utility Location

To avoid damage to underground utility installations during the course of the subsurface investigation, AllWest will contact Underground Service Alert (USA), an organization for public utility information, on the pending subsurface investigation. USA will then notify public and private entities that maintain underground utilities within the site vicinity to locate and mark their installations for field identification. A private underground utility locator, Subtronic Corporation (Subtronic) of Concord, California, will also be employed by AllWest to conduct a magnetometer and/or ground penetrating radar sweep investigation to locate marked and unmarked underground utilities in the vicinity of the proposed boring locations. Other qualified contractors may be used if necessary.

The proposed boring locations shown in Figure 3 were selected to avoid known underground and aboveground utilities as mapped during the WA investigation in 2005, and observed during our site visit in 2011. Known underground and aboveground utility locations are shown in Figure 4.

G. Geoprobe® DPT Boring Advancement and Soil Sampling

Ten soil borings (B-15 through B-24) will be advanced by the direct push technology (DPT) continuous coring method (such as the Geoprobe® system or equivalent) to collect soil and groundwater samples to further delineate the extent of COCs in the subsurface in the vicinity of the former USTs and fuel dispensers, and downgradient to cross-gradient from the subject site. The borings will be advanced to approximate depths of 15 to 20 feet bgs to intersect the first

encountered water-bearing zone, depending on depth to first encountered groundwater.

Borings B-15 through B-19 were originally proposed in our *Additional Site Characterization and Interim Remedial Action Workplan* (AllWest, September 2011). The proposed location of downgradient boring B-19 was revised by AllWest to address ACEH comments in their letter of May 2, 2012 in response to the *Additional Site Characterization and Interim Remedial Action Workplan*. The five additional proposed borings B-20 through B-24 are being added by AllWest to address ACEH's request in their letter of May 2, 2012 for characterization in the vicinity and immediately downgradient of the former USTs and fuel dispensers. Proposed boring locations are shown on Figure 3. Actual locations are dependent upon access and utility clearance.

Boring B-15 will be located cross-gradient and north of the subject site in the sidewalk along the north side of 67th Street. Boring B-16 will be located west-southwest and down to cross-gradient of the subject site in the sidewalk or street (depending on underground and overhead utility locations) along the south side of 67th Street. Borings B-17 and B-19 will be located west and downgradient of the subject site in the sidewalk along the north side of 67th Street within the former Clearprint UST locations east of former monitoring well MW-1. The preferred location of boring B-18 is the construction equipment storage and parking area northwest and down to cross-gradient of the subject site across 67th Street. If access to this property cannot be obtained in a timely manner, B-18 will be located on the sidewalk along the north side of 67th Street, west-northwest and downgradient of the subject property.

Boring B-20 will be located west of the subject site along the south side of 67th Street within the sidewalk or street (depending on underground and overhead utility locations) to characterize soil and groundwater conditions immediately downgradient from the former USTs. Borings B-21, B-22 and B-23 will be located in the sidewalk along the south side of 67th Street in the vicinity of the former USTs to characterize free product extent in soil and groundwater. Boring B-24 will be located on the subject property southeast and upgradient of the former USTs to characterize soil and groundwater in the vicinity of the former fuel dispensers.

Vironex, Inc., a C-57 licensed drilling contractor located in Concord, California will provide drilling services. Other suitable drilling contractors may be utilized if necessary. Following coring of the concrete sidewalk slabs or asphalt pavement, all boring locations will be hand augered to 5 feet bgs to clear potential underground utilities.

Soil sampling will be accomplished using a nominal 4-foot long, 2-inch outside diameter (OD) stainless steel drive probe and extension rods. The drive probe will

be equipped with nominal 1-1/2 inch inside diameter (ID) clear plastic poly tubes that line the interior of the probe. The probe and insert tubes are together hydraulically driven using a percussion hammer in 4-foot intervals. After each drive interval the drive probe and rods are retrieved to the surface. The poly tube containing subsurface soil is then removed. The drive probe is then cleaned, equipped with a new poly tube and reinserted into the boring with extension rods as required. The apparatus is then driven following the above procedure until the desired depth is obtained. Standard Geoprobe™ DPT sampling procedures are included in Appendix C.

An AllWest environmental professional will oversee field work and drilling activities. The boring logs will contain pertinent information on drilling and soil conditions. Soil will be logged in accordance with the Unified Soil Classification System (USCS). Boring logs will be included in the final written report. The poly tubes and soil are inspected after each drive interval with lithologic and relevant drilling observations recorded. Soil samples are screened for organic vapors using a photo-ionizer detector (PID), or other appropriate device, by taking readings of headspace vapor concentrations of the soil inside a zip-lock plastic bag. PID readings, soil staining and other relevant observations are recorded on the boring logs.

It is anticipated that at least three soil samples from each DPT boring will be collected for potential laboratory analysis: one at approximately 5 to 6 feet bgs, at least one within areas of obvious contamination or significant changes in lithology depending upon visual observation, odors and PID screening, and one within the capillary fringe zone at approximately 10 to 15 feet bgs. Selected soil sample intervals will be cut from the 4-foot intervals for analytical testing. The ends of samples for possible analytical testing are sealed using Teflon™ lined plastic end caps. The samples are labeled, and stored in an iced cooler.

H. DPT Boring Free Product Measurement and Groundwater Sampling

Potential floating free product will be measured and “grab” groundwater samples will be collected after the completion of soil sampling and when the borings have reached their designed depth. The steel probe and rods are then removed from the boring and new, nominal ¾-inch ID diameter PVC solid and perforated temporary casing is lowered into the borehole. Depth to water and potential floating free product thickness is then measured using an electronic oil/water interface probe. Following groundwater and product level measurements, a ¾-inch ID clear acrylic, polyethylene or Teflon™ bailer will be lowered to the groundwater surface, raised and inspected for potential product sheen or layer thickness. If measurable free product is present, an attempt will be made to bail it down to a thin film or sheen prior to collecting groundwater samples.

Following groundwater and free product level measurements, groundwater samples will then be collected by using a polyethylene or Teflon™ disposable bailer, or by oscillating disposable polyethylene or Teflon™ sample tubing fitted with a check valve. Upon retrieval of the sample, the retained water will be transferred to appropriate sample bottles furnished by the analytical laboratory. Samples for TPH-g, BTEX and fuel oxygenate and additive analysis will be collected in two 40-milliliter VOA vials preserved with HCl solution. Samples for TPH-d and TPH-mo analysis will be collected in one 1-liter amber glass bottle preserved with HCl solution. All sample bottles for volatile organic analysis will have Teflon lined septum/cap and be filled such that no headspace is present. Sample bottles will be labeled and immediately placed on ice to preserve the chemical characteristics of their contents.

I. DPT Borehole Backfilling

At the completion of drilling and sampling, the borings will be backfilled with a "neat" Portland Type I or II cement grout slurry that is tremied into the borehole through a PVC pipe. The level of grout will be checked to ascertain if any settling has occurred and will be "topped off" if required. Concrete sidewalk slabs will be restored with a concrete slurry poured flush to grade. Grouting will be performed under supervision of an ACPWA inspector after giving at least 72 hours prior notice to arrange inspection.

J. Hollow Stem Auger Boring Advancement and Soil Sampling

Following the first phase of the subsurface investigation, two groundwater monitoring wells, (AMW-1 and AMW-2) will be installed along the north and possibly south side of 67th Street west-northwest to west-southwest and downgradient of the subject site. Anticipated proposed locations are shown on Figure 3. Actual locations will depend upon ACEH approval pending analytical results from the downgradient borings during the first phase of the subsurface investigation, and upon access and utility clearance.

Gregg Drilling and Testing, Inc., a C-57 licensed drilling contractor located in Martinez, California will provide drilling services. Other suitable drilling contractors may be utilized if necessary. Following coring of the concrete sidewalk slabs or asphalt pavement, all boring locations will be hand augered to 5 feet bgs to clear potential underground utilities. The borings for monitoring wells AMW-1 and AMW-3 will be advanced to an anticipated depth of approximately 29 to 30 feet bgs using a truck-mounted, hollow stem auger (HSA) drill rig equipped with nominal 3.75-inch ID and 8-inch outside diameter OD, hollow stem augers.

During the borehole advancement operations, an environmental professional from AllWest will be present to collect representative soil samples, conduct field vapor screening and maintain a continuous log of drilling activities. Soil vapor headspace and ambient concentrations will be monitored using a PID. Boring logs will contain pertinent information on drilling and soil conditions. Soil will be logged in accordance with the USCS. Copies of the boring logs will be included in the final report. Field activities will be conducted under the direction of a California licensed Professional Geologist. Standard hollow stem auger drilling procedures are included in Appendix C.

Soil samples will be collected for lithologic characterization and potential chemical analysis at approximate five foot depth intervals with a two-inch diameter California Modified split-spoon sampler equipped with 2-inch diameter by 6-inch long brass or stainless steel liners. It is anticipated that at least three soil samples from each DPT boring will be selected for potential laboratory analysis: one at approximately 5 to 6 feet bgs; at least one within areas of obvious contamination or significant changes in lithology depending upon visual observation, odors and PID screening; and one within the capillary fringe zone at approximately 10 to 15 feet bgs. Sample tubes selected for chemical analysis will be sealed with Teflon™ lined plastic end caps. Sample containers will be labeled, placed in a refrigerated environment and transported under chain-of-custody control to the analytical laboratory. Standard hollow stem auger soil sampling procedures are included in Appendix C.

K. Groundwater Monitoring Well Installation

Once the borings have been advanced to their designated depth, anticipated to be approximately 29 to 30 feet bgs, well casings will be installed through the center of the hollow stem augers. After the well casings have been set, the augers will be removed in sections while the sand filter pack is placed. Well casing will be composed of nominal 2-inch ID schedule-40 PVC pipe. The casing screen section will consist of factory perforated 0.01-inch slots and will extend for an approximate 20 foot interval above the bottom of the boring, or as necessary to intersect the saturated zone and extend above the static water level to allow for seasonal variations for LNAPL (free product) thickness monitoring. Non-perforated (blank) well casing pipe will be used to complete the well casing from the top of the screen section to the ground surface.

The filter pack around the well screen interval will consist of pre-washed #2/12 Monterey sand placed in the annular space from the well bottom up to one foot above the screen section. The well will then be surged with a surge block to settle the sand pack, which will then be topped off to maintain the one foot level above the top of screen. An approximate two-foot hydrated bentonite pellet or chip seal will then be placed in the annular space above the filter pack to prevent surface water infiltration. The remaining annular space in the borehole will then be

backfilled with neat Portland cement grout up to approximately one-foot below the ground surface. The well casing will be protected by a flush-mounted traffic-rated vault box set in a concrete annular surface seal. A water-tight locking end-cap will be placed on top of the well casing to prevent surface water intrusion and unauthorized access. Standard monitoring well installation procedures are included in Appendix C.

L. Groundwater Monitoring Well Development and Sampling

The two new groundwater monitoring wells (AMW-1 and AMW-2) will be developed to remove fine sediments from the well and borehole annulus and to enhance hydraulic conductivity with the surrounding formation. Development will be performed at least 48 hours after completion to allow the grout seals to adequately cure. Development procedures are described above in Section IV. C. Well development procedures are included in Appendix C.

The new groundwater monitoring wells (AMW-1 and AMW-2) will be allowed to stabilize a minimum of 48 hours after development prior to purging and collection of groundwater samples. Since it is anticipated that several months will have elapsed since the previous sampling event, groundwater samples will also be collected from existing monitoring well MW-3 during this event. One groundwater sample from each well (AMW-1, AMW-2 and MW-3) will be collected and submitted for laboratory analysis. Sampling procedures are described above in Section IV. D. Standard groundwater sampling procedures are included in Appendix C.

M. Monitoring Well Head Survey

AllWest will contract with a licensed California surveyor to establish horizontal and vertical control of the two new and one existing monitoring well heads (AMW-1, AMW-2 and MW-3) using NAD 1983 and NAVD 1988 datum in accordance with California State Water Resources Control Board (SWRCB) GeoTracker protocol. A notch will be set in the top of each PVC casing during the installation process and subsequently used as the TOC elevation reference point to measure water depths. This notch, as well as the vault box top will be surveyed to an accuracy of 0.01 feet and referenced to mean sea level (MSL) using NAVD 1988 datum. This information along with depth to water measurements will be used to calculate groundwater flow direction and gradients.

N. Investigative Derived Waste Containment and Disposal

Investigative derived waste including soil cores, soil cuttings, decontamination rinseate, purged groundwater, and free product will contained onsite within a secure storage facility in 55-gallon drums pending analytical results, profiling and transport to an appropriate disposal facility.

V. QUALITY ASSURANCE / QUALITY CONTROL PROGRAM

A. Sample Preservation, Storage and Handling

To prevent the loss of constituents of interest, all soil and groundwater samples will be preserved by storing in an ice chest cooled to 4°C with crushed ice immediately after their collection and during transportation to the laboratory. Samples will be stored within the cooler in separate zip-lock plastic bags to avoid cross-contamination.

B. Chain-Of-Custody Program

All samples collected for this project will be transported under chain-of-custody protocol. The chain-of-custody program allows for the tracing of possession and handling of individual samples from the time of field collection through laboratory analysis. The document includes the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. Upon delivery to the laboratory the document will also include the name of the person receiving the samples, and date and time samples were received.

VI. ANALYTICAL METHODS

All samples selected for analysis will be analyzed by a State of California certified independent analytical laboratory. McCampbell Analytical, Inc., of Pittsburg, California will likely perform all soil and groundwater analysis. However, other qualified laboratories may be utilized dependent on work load and time frame considerations.

It is anticipated that up to thirty soil samples (up to three from each boring B-15 through B-24), one composite sample from the soil waste drum, and eleven ground water samples (one from each boring and the monitoring well MW-3) will collected for analysis during the first phase of the investigation. It is anticipated that up to six soil samples (up to three from each boring AMW-1 and AMW-2), one composite sample from the soil waste drum, and three ground water samples (one from each monitoring well AMW-1, AMW-2 and MW-3) will collected for analysis during the second phase of the investigation.

All soil samples from source area borings B-20 through B-24 will be analyzed for TPH-d and TPH-ms per EPA Method 8015 with silica gel cleanup, and for TPH-g, BTEX, the fuel oxygenates di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), MTBE, tert-amyl methyl ether (TAME) and tert-butyl alcohol (TBA), and the lead scavenger fuel additives ethylene dibromide (EDB) and ethylene dichloride (EDC) by EPA Method

8260. Soil samples from downgradient borings B-15 through B-19, AMW-1 and AMW-2 will be analyzed for the same constituents except no analysis for fuel oxygenates and lead scavengers; TPH-g and BTEX will be analyzed per EPA Method 8015/8021.

One soil waste drum sample composited from corings from all ten DPT and HSA borings will be analyzed for TPH-g, BTEX, the fuel oxygenates DIPE, ETBE, MTBE, TAME and TBA, and the fuel additives EDB and EDC by EPA Method 8260, and for LUFT 5 metals (cadmium, chromium, nickel, lead and zinc) by EPA Method 6010 for disposal profiling. If required for disposal profiling, the composite soil sample may also be analyzed for STLC LUFT 5 metals by California WET.

All groundwater samples will be analyzed for TPH-d and TPH-ms per EPA Method 8015 with silica gel cleanup, and for TPH-g and full VOC scan including fuel oxygenates DIPE, ETBE, MTBE, TAME and TBA, and lead scavengers EDB and EDC per EPA Method 8260. A fuel fingerprint analysis will also be performed on the LNAPL (free product) sample collected from MW-3 during initial redevelopment per EPA Method 8015 as requested in the ACEH letter of May 2, 2012.

VII. REPORT PREPARATION

A brief preliminary data submittal report in letter format will be prepared following the first phase of the investigation, which will include boring logs, site plan with proposed monitoring well locations, analytical tables and copies of the analytical laboratory reports.

A final written report will be prepared for this investigation after the completion of all field work and receipt of analytical results. Included in the report will be a site plan, analytical tables, boring logs, well construction diagrams, chain-of-custody documents, and copies of the analytical laboratory reports. The report will present investigation findings and provide conclusions and recommendations. The report will be reviewed by a California Professional Geologist.

The reports and associated documents (laboratory analytical reports, boring logs, etc.) will be uploaded to the ACEH FTP site and the GeoTracker database.

VIII. PROJECT STAFF AND SCHEDULE

Mr. Leonard P. Niles, P.G., C.H.G., a California Professional Geologist (PG 5774) and Certified Hydrogeologist (CHG 357), will provide technical oversight for this project and act as the project manager and regulatory liaison. Additionally, AllWest's staff of engineers, geologists, and technicians will be employed to perform the various tasks of the project. AllWest will inform the ACEH, ACPWA and EPWD at least 72 hours prior

to the start of field activities. AllWest will inform the ACEH of any significant developments during the course of the investigations.

IX. LIMITATIONS

AllWest has prepared this remedial investigation and corrective action plan for the exclusive use of MCG Investments, LLC (Client) for this particular project and in accordance with generally accepted practices at the time of the work and with our written proposal dated June 2012. No other warranties, either expressed or implied, are made as to the professional advice offered. This plan is not a specification for the proposed work and should not be used to bid out any of the proposed work found within. Reliance on this plan by any party other than the Client is at the user's sole risk.

Background information that AllWest has used in preparing this workplan, including but not limited to previous field measurements, analytical results, site plans, and other data, has been furnished to AllWest by the Client, its previous consultants, and/or third parties. AllWest has relied on this information as furnished. AllWest is not responsible for nor has it confirmed the accuracy of this information.

FIGURES

DELORME

Topo USA® 8

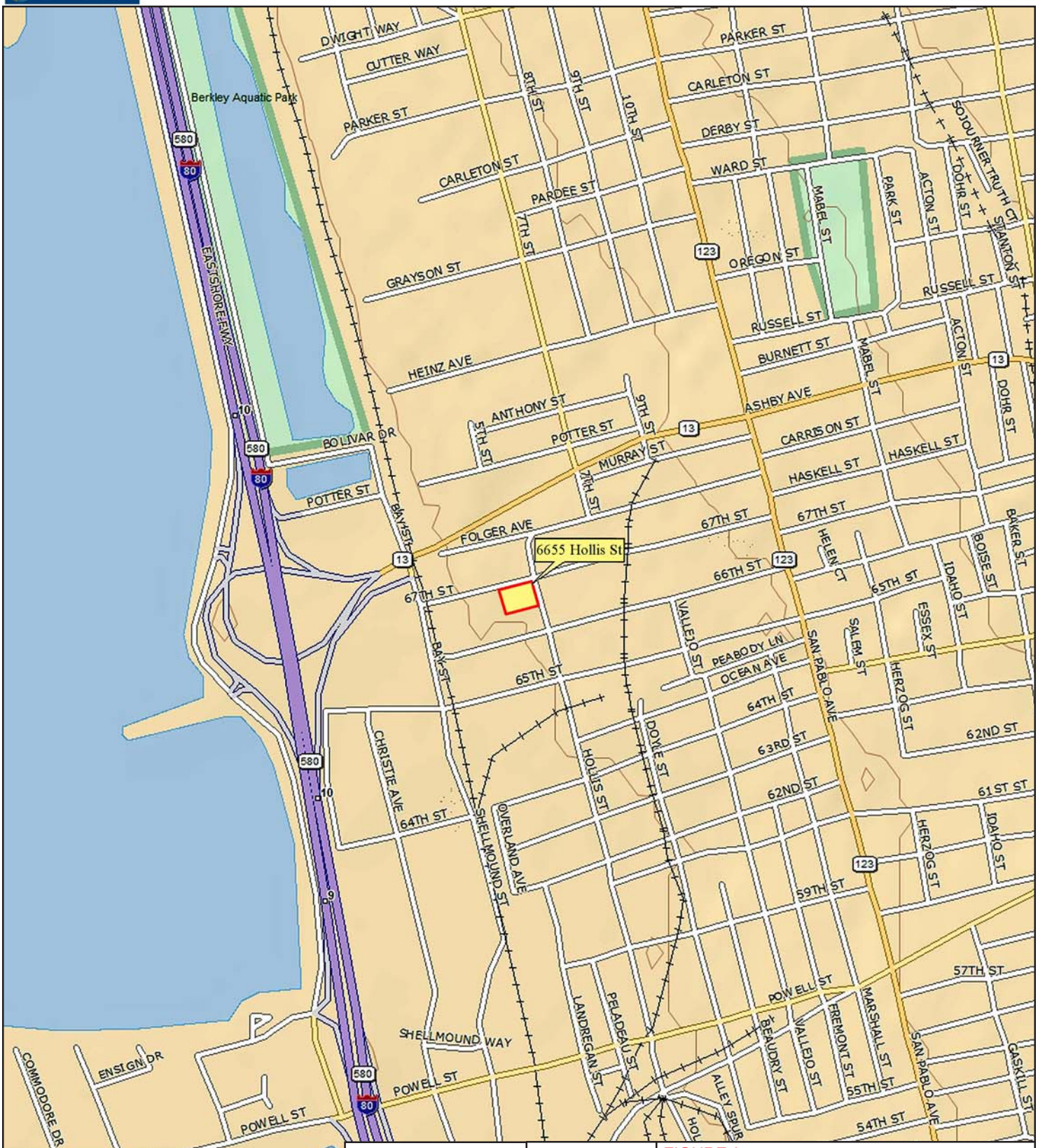
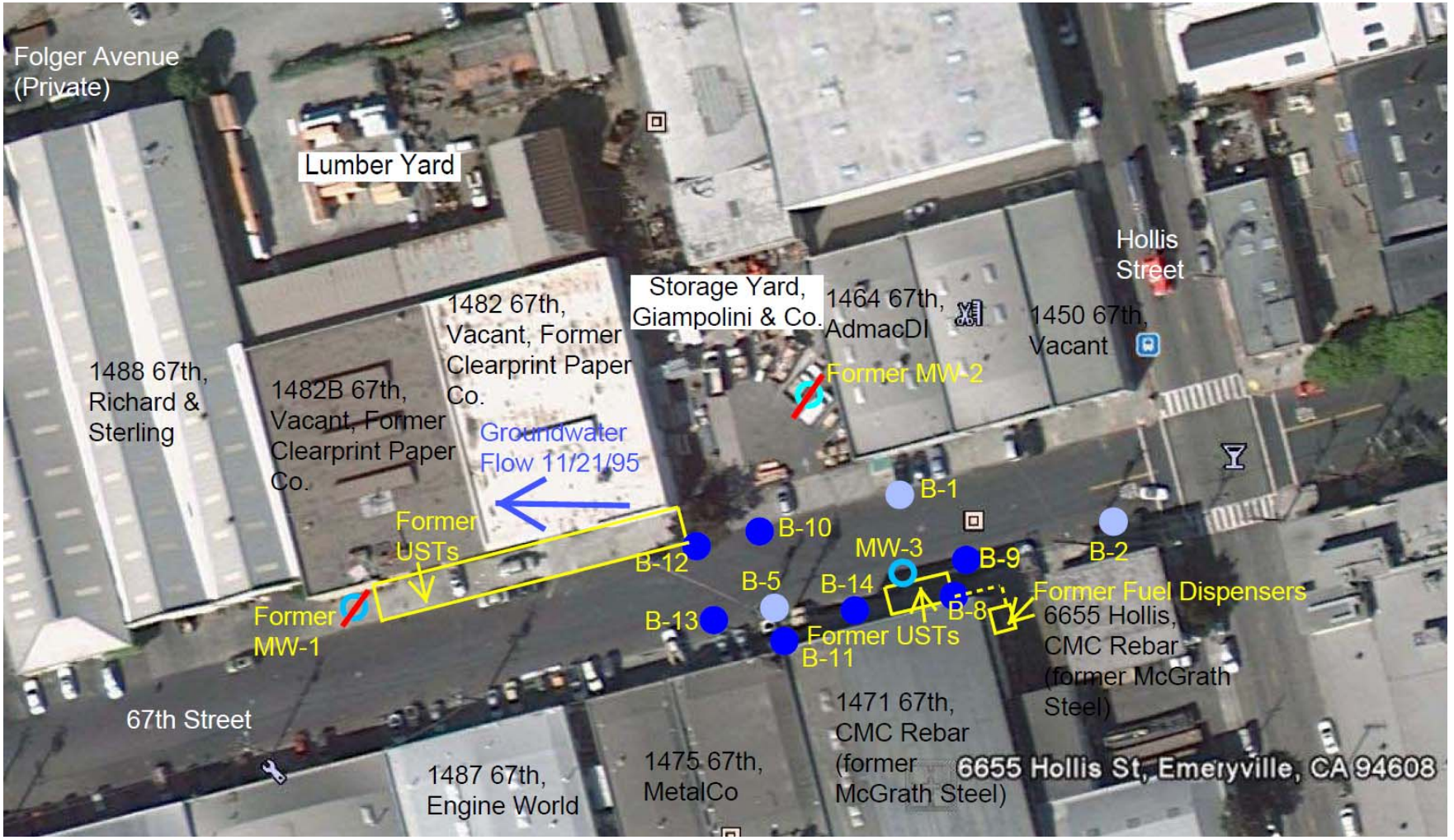
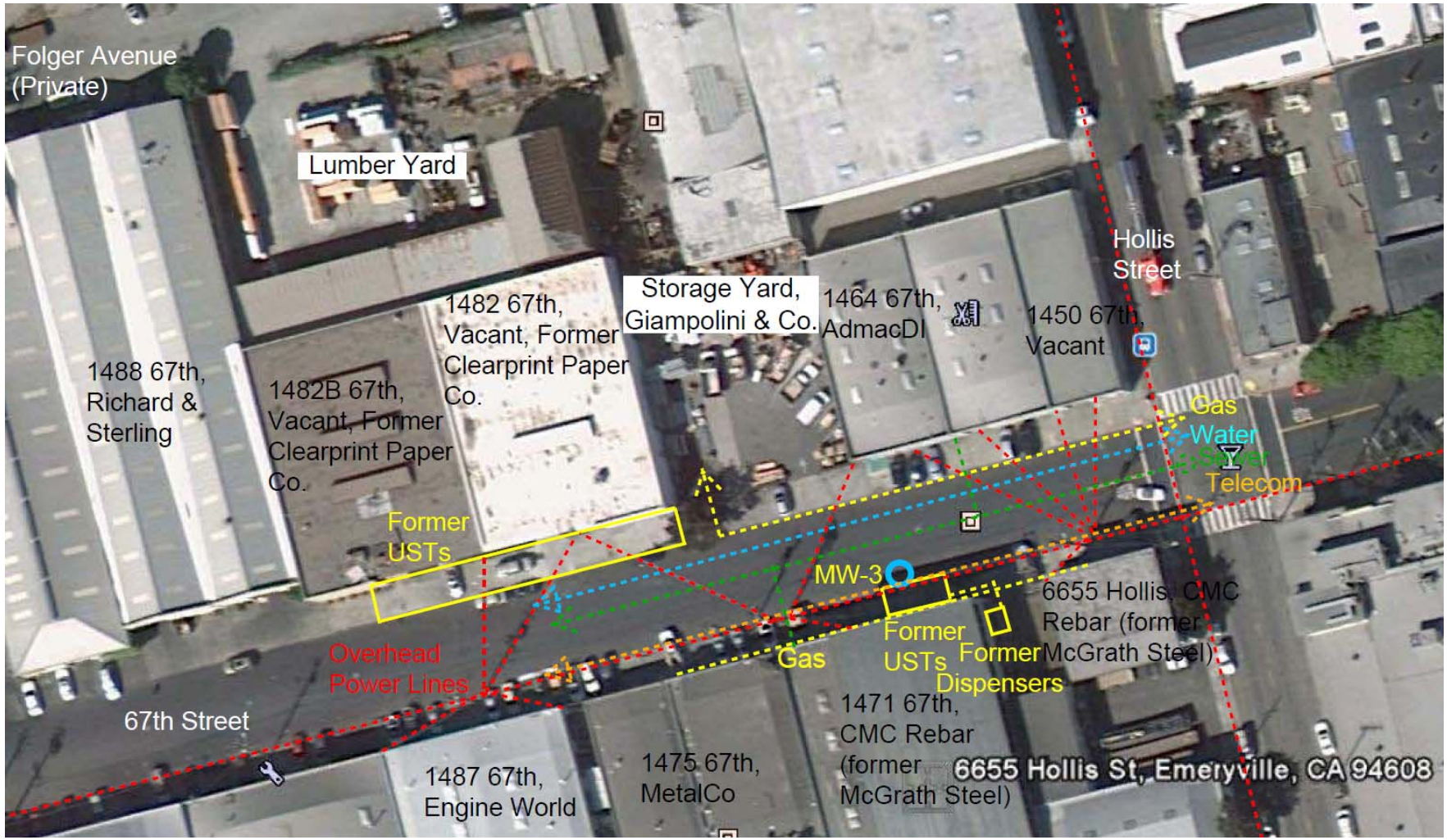


	FIGURE 1
	SITE MAP
AllWest	6655 HOLLIS STREET
	EMERYVILLE, CALIFORNIA
	SOURCE: DELORME TOPO 8.0
PROJECT NO. 12071.23/11124.23	PREPARED BY: C. RAMELB
	DATE: 09/22/11



AllWest	**Legend** **MW-3** Existing Monitoring Well (ESC, 1995) **MW-1** Former Monitoring Well (Clearprint / ESC, Destroyed 2005) **B-1** Boring (Weiss Associates,1998) **B-8** Boring (Weiss Associates, 2005) Former USTs and Fuel Dispensers	**FIGURE 2: SITE PLAN WITH BORING AND WELL LOCATIONS** **Site Name: Former McGrath Steel, 6655 Hollis Street, Emeryville, CA**	**Scale: 1 in = 80 ft** **Photo: Google Earth** **Date: 7/18/12** **By: Leonard Niles**	**N↑** **Project Number:** **12071.23 / 11123.23**

AllWest	**Legend** **MW-3** Existing Monitoring Well **B-15** Proposed Boring **AMW-1** Proposed Monitoring Well Former USTs and Fuel Dispensers	**FIGURE 3: PROPOSED BORING AND WELL LOCATIONS** **Site Name: Former McGrath Steel, 6655 Hollis Street, Emeryville, CA**	**Scale: 1 in = 80 ft** **Photo: Google Earth** **Date: 7/18/2011** **By: Leonard Niles**	**N↑** **Project Number:** **12071.23 / 11123.23**



AllWest	**Legend** **MW-3** Existing Monitoring Well (ESC, 1995) PG&E Underground Gas Line EBMUD Underground Water Line Underground Sanitary Sewer Line AT&T Underground Telecom Line PG&E Aboveground Electric Line Former USTs	**FIGURE 4: UTILITY LOCATIONS** **Site Name: Former McGrath Steel, 6655 Hollis Street, Emeryville, CA**	**Scale: 1 in = 80 ft** **Photo: Google Earth** **Date: 7/17/2012** **By: Leonard Niles** **Source: Weiss Associates, 2005**	N↑ **Project Number:** **12071.23/ 11124.23**

Appendix A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

May 2, 2012

Mr. Jon Braden
McGrath Steel Company
Address Unknown

Shirley J Davini & Dorothy D McGuire
123 Estudillo Avenue
San Leandro, CA 94577

Mr. Walter Merkle
MCG Investments LLC
123 Estudillo Avenue
San Leandro, CA 94577

Subject: Request for Work Plan Addendum; Fuel Leak Case No. RO0000063; (Global ID # T0600102099); McGrath Steel Company, 6655 Hollis Street, Emeryville, CA 94608

Dear Ms. Davini, Ms. McGuire, and Mr. Merkle:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Additional Site Characterization and Interim Remedial Action Workplan,* dated September 27, 2011 (received December 1, 2011). The work plan was prepared and submitted on your behalf by AllWest Environmental, Inc. (AllWest). Thank you for submitting the work plan; it helps move the site forward. In addition to free-phase product (FPP) removal, well redevelopment, and well sampling, the work plan proposes the installation of five direct push bores to delineate the downgradient extent of dissolved-phased hydrocarbons. It includes three contingency locations due to proposed installation of two primary locations on property owned by parties not involved in this case. One primary location (B-15) and two alternate locations (B-18 and B-19, alternate location 1) are at locations similar to previously installed bores, and appear intended to collect current updated soil and groundwater analytical data to help establish contaminant trends in the intervening years. During a site visit in September 2011, up to three feet of free-phase product (FPP) was measured in well MW-3, the only well associated with the site. Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

1) **Request for Work Plan Addendum –** The referenced work plan proposes a series of downgradient delineation actions with which ACEH is in general agreement; however, ACEH requests a work plan addendum to incorporate existing outstanding requests, and to fill existing data gaps. As proposed at present, the closest soil bore location is approximately 60 feet from the former UST location and from well MW-3 (with up to three feet of FPP). The next closest soil bore location is approximately 110 feet distance from the former UST location. Soil bores at these distances will not provide adequate delineation of the extent FPP, at a minimum. In an April 7, 2006 directive letter ACEH expressed a concern that the groundwater plume may have migrated beneath the existing warehouses but did not specify if the warehouses of concern were on the north or south side of 67th Street. Because warehouses on both sides of the street are of concern, this concern cannot be addressed with the proposed soil bore locations. Additionally in the April 2006 directive letter, ACEH also requested the determination of the groundwater gradient in the site vicinity. These requests, outstanding since that time, require the installation of additional source area soil bores and a minimum of two additional wells. The location of the two wells is best decided after installation of the soil bores and incorporation of that data into the well location selection process. This can be done with a data submittal (tabulated soil and groundwater data, appropriate figures to depict the data, and completed

soil bore logs) in consultation with ACEH. Tabulated data is specifically requested to include all previous (historic) analytical data.

When proposing additional soil bore and well locations, please be aware of known utility locations and depths. Because the sewer and water services are reported to be buried at a depth of approximately 8 feet below grade surface (bgs), and groundwater can be as shallow as 7 feet bgs, the soil bore locations can yield insight as to potential preferential pathways in the site and vicinity. By the date identified below, ACEH requests the submittal of a work plan addendum.

a. **Request for Source Area Characterization** – In order to adequate delineate FPP and to determine the potential for the migration of the plume (FPP or dissolved-phase) beneath the warehouses on the south side of 67th Street, ACEH requests adequate source area characterization with the installation of additional soil bores. The installation of a bore into the old UST excavation may be appropriate.

b. **Request for Downgradient Bore Transect** - For the purpose of delineating the lateral and downgradient extent of the groundwater plume ACEH is in general agreement with the locations of the proposed soil bores in the site vicinity; however, requests relocation of soil bore B-19, and Alternate 2, such that a soil bore transect is installed along 67th Street, to tightly constrain the location of the downgradient dissolved-phase groundwater plume. Further bores may be appropriate to fill gaps in the proposed bore locations on the north side of 67th Street in order to provide quick and tight plume delineation. This will allow for a quick assessment of the plume location and can allow for focused remedial efforts, as needed.

c. **Clarification of Analytical Suite for Soil and Groundwater** – To prevent miscommunication, ACEH requests the following analytical suite for the soil and groundwater investigation (Additional analytical requirements for waste characterization were identified in the work plan, and are largely driven by disposal facility disposal requirements; ACEH does not seek modification of those requirements). Specifically, for source area characterization, ACEH requests that all soil and groundwater media be submitted for analysis for TPHg, TPHd, TPHms, BTEX, and all fuel oxygenates (MTBE, TAME, TBA, DIPE, ETBE) and lead scavengers (EDB & EDC). Use of silica gel cleanup for extractable range hydrocarbons (TPHd and TPHms) was proposed and would be appropriate. For downgradient delineation bores fuel oxygenates and lead scavengers can be eliminated for soil. A full scan VOCs analysis was also proposed for grab groundwater samples, and is appropriate, at least initially, at the site due to past historical uses of chemicals in the site vicinity (Clearprint Paper Co and potentially others). The work plan included several references to TPHmo analysis. ACEH is not sure of a reason to include this analysis; however, with clarification may be amenable to inclusion of the analyte in the analytical suite. It would also be useful to fingerprint the FPP, reported to be clear, an unusual condition more than a decade after its presumed release.

d. **Soil Selection Protocols** – The work plan addendum proposes to collect approximately two soil samples in each soil bore at a static depth interval (5 and 10 feet below grade surface). To preclude miscommunication ACEH additionally requests that soil samples be collected, and submitted for analysis, at signs of contamination (odor, discoloration, PID responses, etc.) and at significant changes in lithology. Please be aware to submit sufficient soil samples to define the vertical extent of associated contamination, an ACEH request.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Mark Detterman), according to the following schedule:

- **June 15, 2012** – Work Plan Addendum
- **60 Days After Work Plan Approval** – Soil and Groundwater Report (SWI)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2012.05.02 11:30:30 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: Leonard Niles, AllWest Environmental, Inc, 530 Howard Street, Suite 300, San Francisco, CA 94105; (sent via electronic mail to: leonard@allwest1.com)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 19, 2010
Revised December 6, 2010

Mr. Jon Braden
McGrath Steel Company
Address Unknown

Shirley J Davini & Dorothy D McGuire
123 Estudillo Avenue
San Leandro, CA 94577

MCG Investments LLC & et al
123 Estudillo Avenue
San Leandro, CA 94577

Subject: Request for Work Plan or Information; Fuel Leak Case No. RO0000063; (Global ID # T0600102099); McGrath Steel Company, 6655 Hollis Street, Emeryville, CA 94608

Dear Ms. Davini, Ms. McGuire, and MCG Investments:

I have recently been assigned this case; please send future correspondence or inquiries to my attention. Alameda County Environmental Health Department (ACEH) staff have recently reviewed the case file for the site including the report entitled, *Site Characterization Report,* dated March 2, 2006, prepared on your behalf by Weiss Associates (Weiss), and the April 7, 2006 ACEH directive letter. These appear to be the most recent documents for the subject site. Based on the review of the case file it appears that information previously requested of you has not been submitted. We request that you address the following technical comments and send us the reports requested below.

TECHNICAL COMMENTS

1. **Overdue Work Plan** – As described and outlined in the April 7, 2006 ACEH letter, a significant release of petroleum hydrocarbons was identified downgradient of the former McGrath Steel Tanks, and a work plan was required to be submitted by May 9, 2006. To date, we do not appear to have received confirmation that the requested work has been completed. The work plan is overdue and the site is out of compliance with ACEH directives.

   Please either have prepared and submit a work plan, or submit any work plans and reports that may have been prepared in the intervening period of time to document the results of all investigative activities that have since occurred at the site.

TECHNICAL REPORT REQUEST

Please submit the following deliverable to ACEH (Attention: Mark Detterman), according to the following schedule:

- **January 17, 2011** – Work Plan or Additional Information Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, c=US
Date: 2010.12.06 11:11:40 -08'00'

Mark E. Detterman, PG, CEG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

Copy November 19, 2010 directive letter

cc: L. Maile Smith, Weiss Associates, 350 E. Middlefield Road, Mountain View, CA 94043 (sent via electronic mail to lms@weiss.com)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, e-File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Attachment 1

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 19, 2010

Mr. Jon Braden
McGrath Steel Company
6655 Hollis Street
Emeryville, CA 94608

Subject: Request for Work Plan or Information; Fuel Leak Case No. RO0000063; (Global ID # T0600102099); McGrath Steel Company, 6655 Hollis Street, Emeryville, CA 94608

Dear Mr. Braden:

I have recently been assigned this case; please send future correspondence or inquiries to my attention. Alameda County Environmental Health Department (ACEH) staff have recently reviewed the case file for the site including the report entitled, *Site Characterization Report,* dated March 2, 2006, prepared on your behalf by Weiss Associates (Weiss), and the April 7, 2006 ACEH directive letter. These appear to be the most recent documents for the subject site. Based on the review of the case file it appears that information previously requested of you has not been submitted. We request that you address the following technical comments and send us the reports requested below.

TECHNICAL COMMENTS

1. **Overdue Work Plan** – As described and outlined in the April 7, 2006 ACEH letter, a significant release of petroleum hydrocarbons was identified downgradient of the former McGrath Steel Tanks, and a work plan was required to be submitted by May 9, 2006. To date, we do not appear to have received confirmation that the requested work has been completed. The work plan is overdue and the site is out of compliance with ACEH directives.

   Please either have prepared and submit a work plan, or submit any work plans and reports that may have been prepared in the intervening period of time to document the results of all investigative activities that have since occurred at the site.

TECHNICAL REPORT REQUEST

Please submit the following deliverable to ACEH (Attention: Mark Detterman), according to the following schedule:

- **January 17, 2011** – Work Plan or Additional Information Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Mark E. Detterman, PG, CEG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: L. Maile Smith, Weiss Associates, 350 E. Middlefield Road, Mountain View, CA 94043
(sent via electronic mail to lms@weiss.com)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, e-File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Attachment 1

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SENT 04-10-06

April 7, 2006

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. Jon Braden
McGrath Steel Company
6655 Hollis St.
Emeryville, CA 94608

Dear Mr. Braden:

Subject: Fuel Leak Case RO0000063, McGrath Steel Company, 6655 Hollis St., Emeryville, CA 94608

Alameda County Environmental Health (ACEH) staff has received and reviewed the case file for the subject site including the March 2, 2006 Site Characterization Report prepared by Weiss Associates. This report provides the results of the 2005 soil and groundwater investigation performed within 67th St., which attempted to determine the extent of the petroleum release from the former fuel USTs at the subject site. Additional information is required to progress toward case closure. We have the following observations and technical comments. Please address these comments and submit the technical reports requested below.

TECHNICAL COMMENTS

1. The sampling results from borings B-10 and B-12 located near the former Clearprint tanks reported contamination described as gasoline by the analytical laboratory. Therefore, we do not concur with your consultant's conclusion that TPHg and BTEX originating from the Clearprint USTs are contributing to the groundwater plume. These tanks did not contain gasoline, therefore, we believe the contamination has likely come from the former McGrath Steel tanks and this confirms that the County was correct closing the Clearprint site. In addition, we do not concur that there is significant data to support the claim that an up-gradient source is also contributing to the groundwater plume.
2. A significant release of TPHg, TPHd and BTEX into groundwater was identified down-gradient of the former McGrath Steel tanks. The concentrations of TPHg in borings B-11 through B-13 report up to 290 ppm TPHg, 100 ppm TPHd, and 24, 39, 6.7 and 37 ppm BTEX, respectively, in groundwater. Although grab groundwater results are qualitative in nature, these concentrations are near saturation and could indicate the presence of free product. Therefore, the need for interim cleanup for plume migration control must be considered. In addition, the extent of the plume remains unknown and must be determined. Your consultant recommends using a soil gas survey to make this determination. We also believe that the plume may have migrated beneath the existing warehouse(s). Please provide a work plan for plume delineation and discuss~~es~~ interim remediation as requested below.
3. The groundwater flow direction has been assumed the same as that determined for the Clearprint site. Additional monitoring wells must be installed to define the extent of the plume and determine site-specific gradient. We concur with your consultant's proposal for additional wells, however, we believe it may require more than two additional wells to characterize the plume. Please indicate when you will be submitting a work plan for additional monitoring wells.

4. The MTBE release has not been adequately characterized. Although low levels of TPHg and BTEX remain in soil, up to 12 ppm MTBE was detected in the soil sample from B-14, immediately down-gradient of the former tanks. Elevated MTBE in groundwater from MW-3 was reported at 12 ppm. It appears that significant residual MTBE remains in soil and groundwater near the former USTs. Your interim remediation should also address residual MTBE. In 1998, up to 59 ppm MTBE was detected in the groundwater sample from boring B-5 but the recent groundwater samples in this area detect approximately 0.4 ppm. It therefore appears that the MTBE plume has migrated beyond these 2005 sampling points.

TECHNICAL REPORT REQUEST

Please submit the following technical report to our office according to the following schedule:

- May 9, 2005- Work Plan for Plume Delineation, Interim Remediation and monitoring well installation.

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at barney.chan@acgov.org.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the

following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

If you have any questions, please call me at (510) 567-67xxx.

Sincerely,

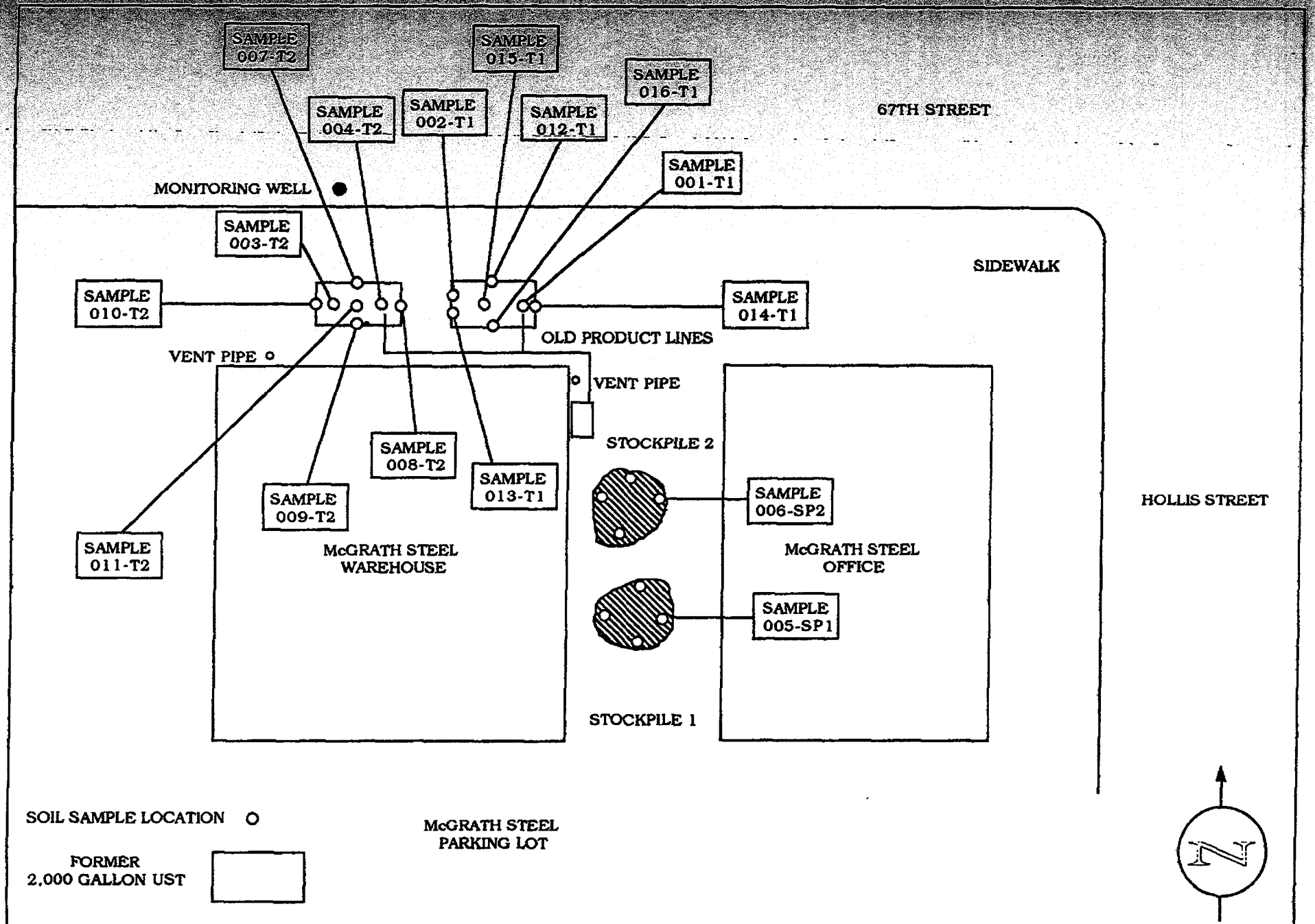
Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

cc: files, D. Drogos
Ms. Maile Smith, Weiss Associates, 350 Middlefiled Rd., Mountain View, CA 94043

4_7_06 6655 Hollis St

Appendix B



Not to scale	Project # 960241	September, 1996	SOIL SAMPLE MAP	Figure 1
Subsurface Environmental Corp.			6655 HOLLIS STREET EMERYVILLE, CA 94608	

SOIL SAMPLE ANALYTICAL RESULTS

TABLE 1

Sample Number Date and Location	TPH(g)	TPH(d)	MTBE	B	T	E	X	Lead
001-T1 - 7/3/96 east bottom deisel tank 8 feet 6 inches bgs	N/A	340	N/A	4.6	33	30	170	N/A
002-T1 - 7/3/96 west sidewall deisel tank 8 feet bgs	N/A	140	N/A	0.1	0.012	0.073	0.73	N/A
003-T2 - 7/3/96 west bottom gasoline tank 9 feet bgs	710	N/A	9.7	1.5	0.52	8.7	11	0.43
004-T2 - 7/3/96 east bottom gasoline tank 9 feet bgs	1300	N/A	35	15	3.5	30	72	0.32
005-SP1 - 7/3/96 stockpile deisel tank	N/A	320	ND	ND	ND	ND	0.044	N/A
006-SP2 - 7/3/96 stockpile gasoline tank	260	N/A	4.7	0.24	2.4	1.2	19	0.25

Please refer to the attatched original laboratory results.
All analytical results on this, and Table 2 are reported in parts per million (ppm).
N/A = Not Applicable
ND = Non Detect

SOIL SAMPLE ANALYTICAL RESULTS

TABLE 2

Sample Number Date and Location	TPH(g)	TPH(d)	MTBE	B	T	E	X
007-T2 - 7/11/96 north sidewall gasoline tank pit 9 feet 5 inches bgs	450	N/A	27	2.1	22	12	71
008-T2 - 7/11/96 east sidewall gasoline tank pit 9 feet 5 inches bgs	49	N/A	9.1	2.1	0.19	1.1	14
009-T2 - 7/11/96 south sidewall gasoline tank pit 11 feet bgs	19	N/A	12	2.5	0.041	0.66	0.069
010-T2 - 7/11/96 west sidewall gasoline tank pit 10 feet 1 inch bgs	37	N/A	71	3.3	3.7	2.1	4.1
011-T2 - 7/11/96 floor, gasoline tank pit 12 feet bgs	15	N/A	17	0.85	0.4	0.57	0.74
012-T1 - 7/11/96 north sidewall deisel tank pit 9 feet bgs	N/A	16	N/A	0.23	0.21	0.49	2.4
013-T1 - 7/11/96 west sidewall deisel tank pit 10 feet bgs	N/A	400	N/A	0.1	0.98	4	23
014-T1 - 7/11/96 east sidewall deisel tank pit 10 bgs	N/A	15	N/A	0.87	1.7	0.83	4.6
015-T1 - 7/11/96 floor,deisel tank pit 12 feet bgs	N/A	340	N/A	0.14	0.64	1.9	11
016-T1 - 7/11/96 south sidewall deisel tank pit 10 feet 6 inches bgs	N/A	870	N/A	3.2	9.6	23	13

Table 1. Samples Collected, McGrath Steel, 6655 Hollis Street, Emeryville, California

Sample ID	Sample Type	Sample Depth (feet bgs)
B-1-10	Soil	10
B-1-23	Soil	23
B-2-5	Soil	5
B-2-10	Soil	10
B-2-19.5	Soil	19.5
B-5-8	Soil	8
B-5-12	Soil	12
B-1	Water	22.5
B-2	Water	22
B-5	Water	16

The downhole drilling equipment was steam cleaned prior to arrival on-site and at the completion of work. Between borings, the equipment was washed in an alconox water solution and triple rinsed. Upon completion of the fieldwork, the borings were grouted to the surface with a 3-5% bentonite/cement grout.

Results

The soil and ground water samples were submitted under chain-of-custody procedures to Curtis and Tompkins, Ltd., Analytical Laboratories (C&T) in Berkeley, California, a state of California Department of Health Services approved laboratory. The ground water samples from each boring were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and diesel (TPH-D), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tertiary-butyl ether (MTBE). At least one soil sample from each boring was analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and diesel (TPH-D), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tertiary-butyl ether (MTBE). The additional soil samples were placed on hold and not analyzed. Table 2 summarizes the analytical results.

Table 2. Sample Results for McGrath Steel, 6655 Hollis Street, Emeryville, California

Sample ID	Sample Type	Sample Depth (feet bgs)	TPH-G	TPH-D	B	E	T	X	MTBE
B-1-10	Soil	10	NA	NA	NA	NA	NA	NA	NA
B-1-23	**Soil**	**23**	**<1**	**<1**	**<0.005**	**<0.005**	**<0.005**	**<0.005**	**<0.020**
B-2-5	Soil	5	NA	NA	NA	NA	NA	NA	NA
B-2-10	Soil	10	NA	NA	NA	NA	NA	NA	NA
B-2-19.5	**Soil**	**19.5**	**<1**	**<1**	**<0.005**	**<0.005**	**<0.005**	**<0.005**	**<0.020**
B-5-8	Soil	8	NA	NA	NA	NA	NA	NA	NA
B-5-12	**Soil**	**12**	**27**	**2.8[b,c]**	**0.28**	**<0.130**	**0.600**	**0.49**	**3.8**
B-1	**Water**	**22.5**	**68[a]**	**120[b]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
B-2	**Water**	**22**	**71[a]**	**150[b]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<2**
B-5	**Water**	**16**	**270,000**	**1,600[b,c]**	**21,000**	**6,000**	**34,000**	**36,000**	**59,000**

a = sample exhibits unknown single peak or peaks
b = sample exhibits fuel pattern which does not resemble standard
c = lighter hydrocarbons than indicated standard
Soil results in mg/kg
Water results in ug/L
NA = not analyzed
BOLD TEXT = samples that were analyzed.

Borings B-1 and B-2 analytical results indicate that there is no fuel hydrocarbon contamination in soils or ground water in their vicinity. The single peaks reported are likely due to an unrelated occurrence such as lab contamination.

Boring B-5 analytical results indicate that there is little fuel hydrocarbon contamination in soils just above the water table in the vicinity of the boring. Boring B-5 analytical results indicate that there is gasoline range hydrocarbon contamination in ground water in the vicinity.

Copies of the laboratory report and chain-of-custody are included as Attachment B.

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

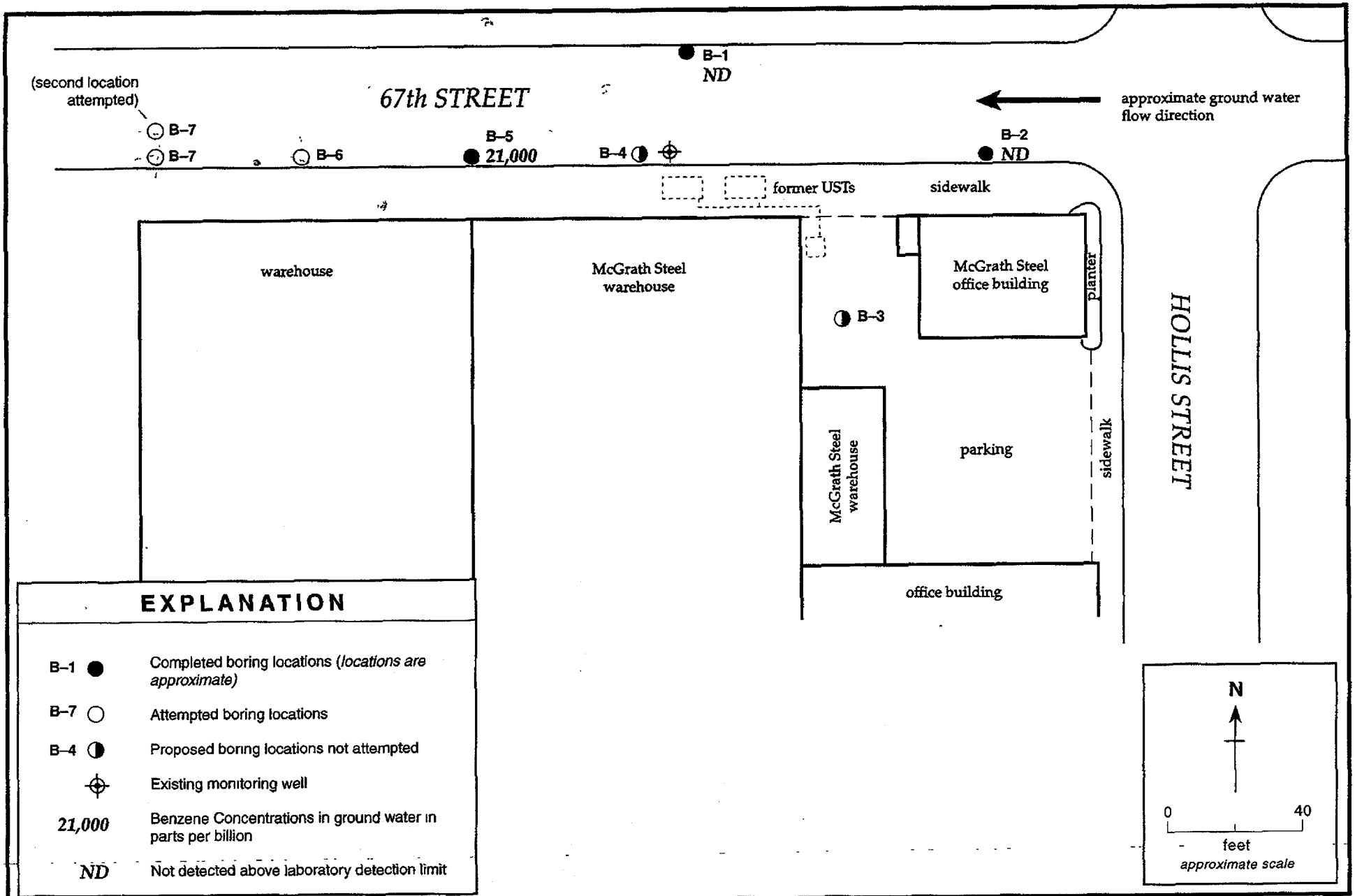


Figure 2. Site Plan—McGrath Steel, 6655 Hollis Street, Emeryville, California

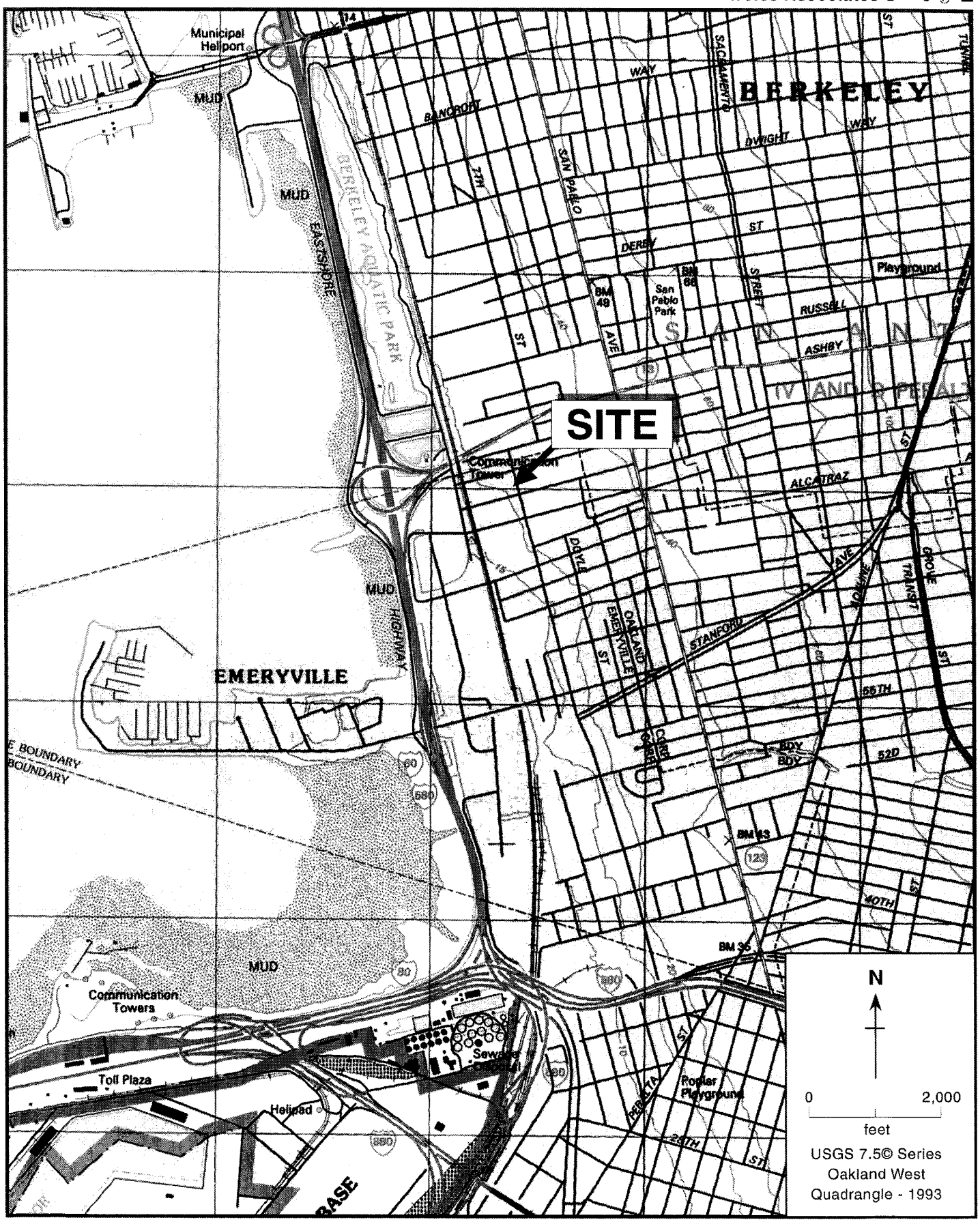


Figure 1. Site Location Map—McGrath Steel, 6655 Hollis Street, Emeryville, California

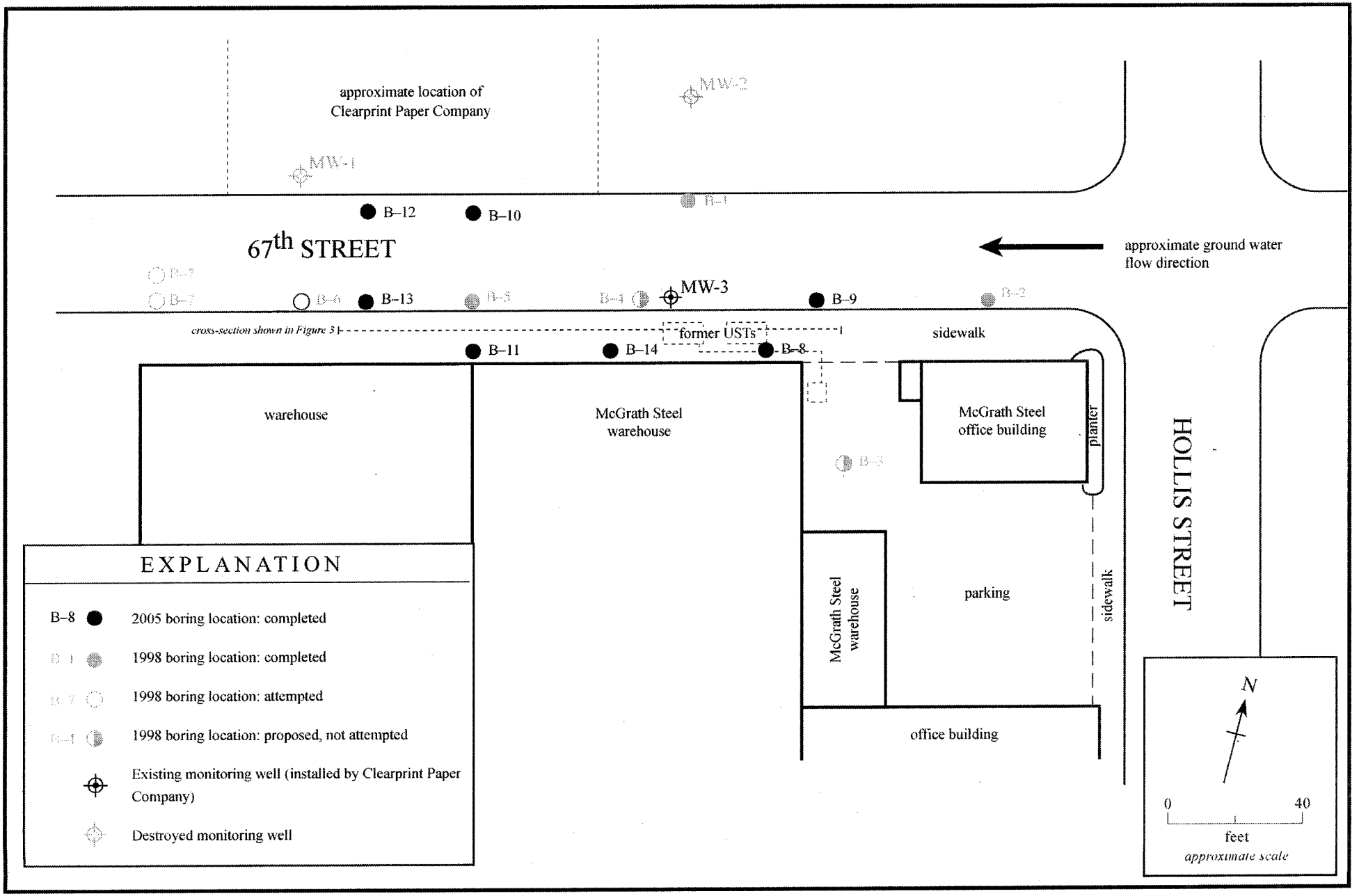


Figure 2. Site Plan and Boring Locations, McGrath Steel, 6655 Hollis Street, Emeryville, California

08/25/05

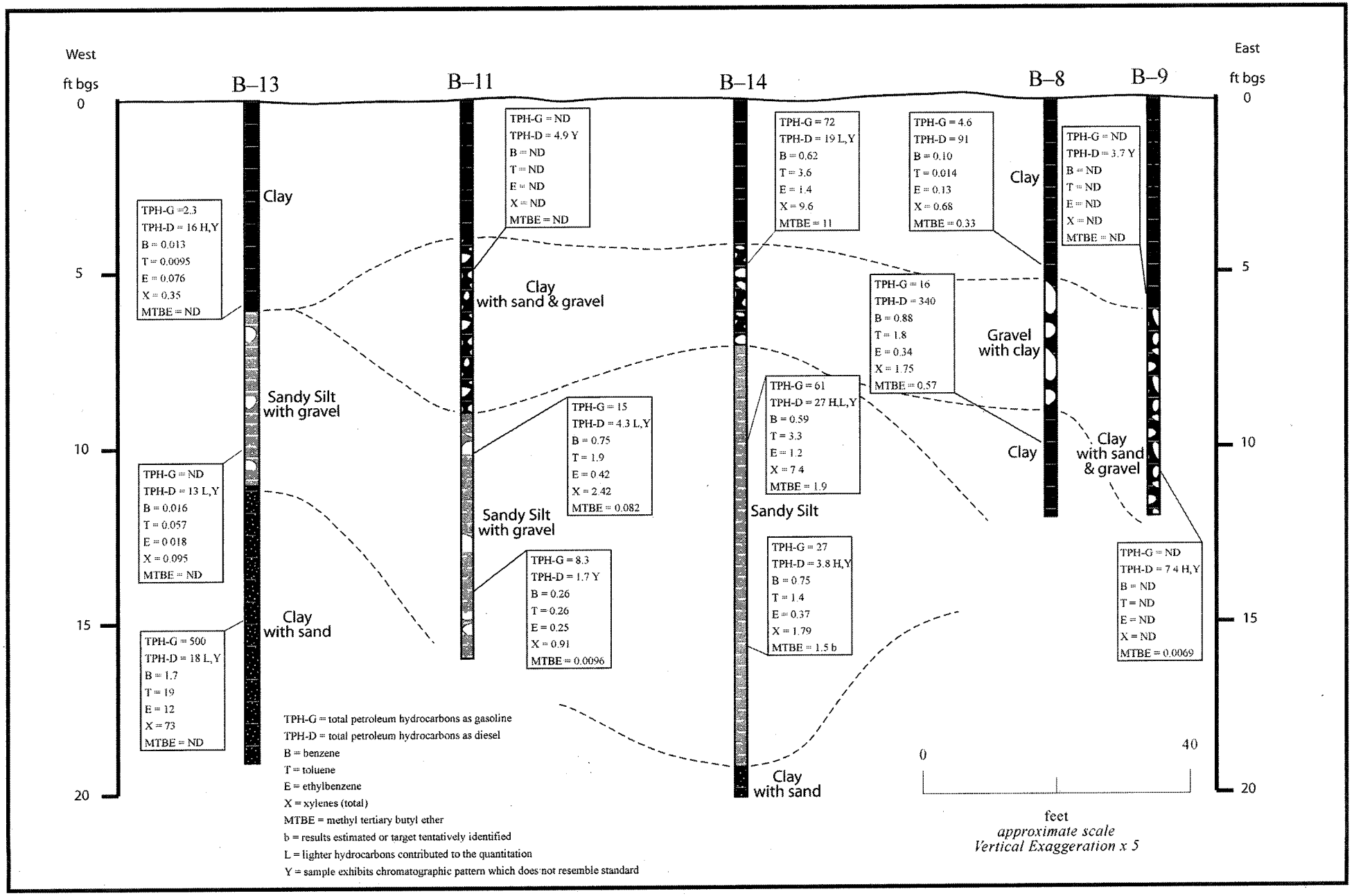


Figure 3. Cross-Section and Summary of Soil Sample Results, McGrath Steel, 6655 Hollis Street, Emeryville, California

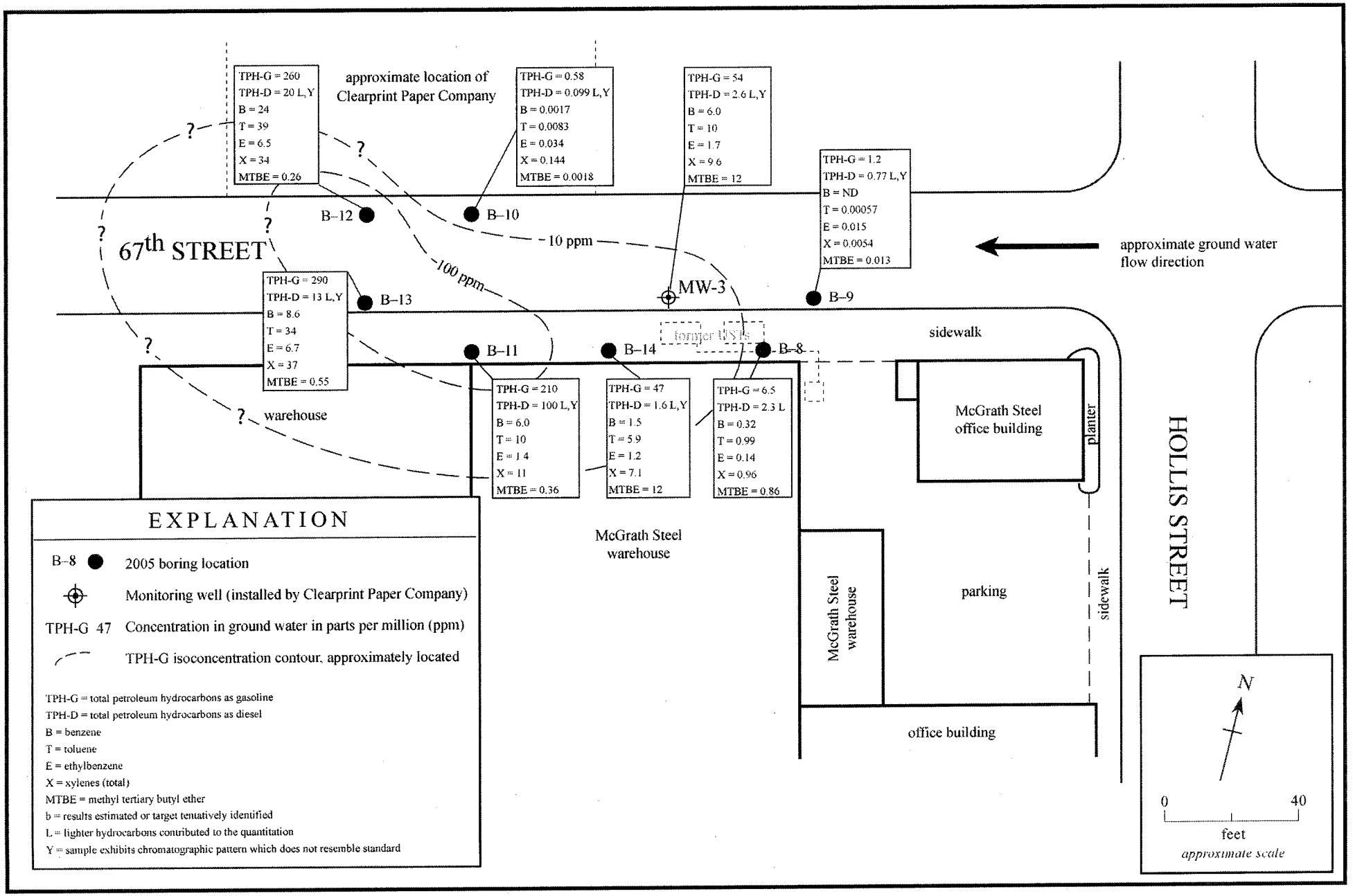


Figure 4. Summary of Grab Ground Water Sample Results, McGrath Steel, 6655 Hollis Street, Emeryville, California

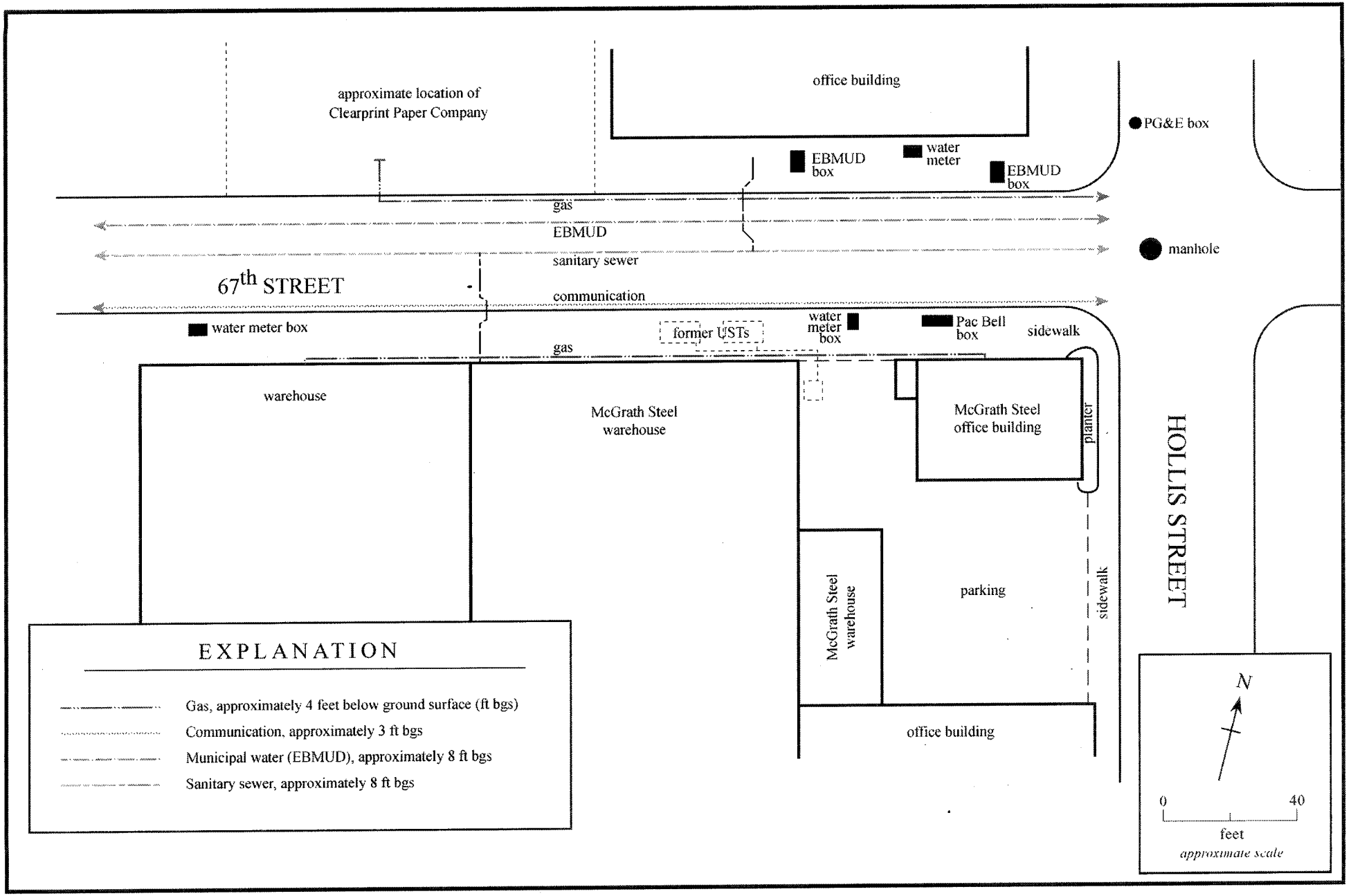


Figure 5. Subsurface Utility Locations, McGrath Steel, 6655 Hollis Street, Emeryville, California

Table 1. Summary of Soil and Ground Water Samples, December 2005, McGrath Steel, Emeryville, California

	B-8	B-9	B-10	B-11	B-12	B-13	B-14
Soil:	B-8-5	B-9-6	B-10-5	B-11-5	B-12-5	B-13-6	B-14-5
	B-8-10	B-9-11	B-10-10	B-11-10	B-12-11	B-13-10	B-14-10
			B-10-15	B-11-14		B-13-15	B-14-16
	TD = 12	TD = 12	TD = 22	TD = 16	TD = 20	TD = 19	TD = 20
Ground Water:	B-8-W	B-9-W	B-10-W	B-11-W	B-12-W	B-13-W	B-14-W
	DTW = 10.73	DTW = 10.47	DTW = 9.22	DTW = 13.79	DTW = 11.51	DTW = 16.22	DTW = 16.31

Notes and Abbreviations

B-*X*-*Y* = soil sample collected from boring "*X*" at "*Y*" feet below ground surface

B-*Z*-W = water sample collected from boring "*Z*"

DTW = depth to first-encountered ground water; measured during drilling in feet below ground surface

TD = total depth of boring in feet below ground surface

Table 2. Chemical Analytic Results Summary, December 2005, McGrath Steel, Emeryville, California

Sample ID	Sample Date	TPH-G	TPH-MS	TPH-D	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME	EDC	EDB
Soil:																
Analytic Method:		*8015B*	*8015B*	*8015B*	*8021B*	*8021B*	*8021B*	*8021B*	*8021B*	*8260B*	*8260B*	*8260B*	*8260B*	*8260B*	*8260B*	*8260B*
Units:		*mg/kg (ppm)*														
B-8-5	20-Dec-05	4.6	NA	91	0.10	0.014	0.13	0.56	0.12	0.22	0.33	ND	ND	ND	ND	ND
B-8-10	20-Dec-05	16	NA	340	0.88	1.8	0.34	1.2	0.55	ND	0.57	ND	ND	ND	ND	ND
B-9-6	20-Dec-05	ND	NA	3.7 Y	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-9-11	20-Dec-05	ND	NA	7.4 H,Y	ND	ND	ND	ND	ND	ND	0.0069	ND	ND	ND	ND	ND
B-10-5	20-Dec-05	ND	ND	16 H,Y	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-10-10	20-Dec-05	4.9	4.7 Y	3.4 Y	ND	ND	0.13	0.25	0.025	ND	ND	ND	ND	ND	ND	ND
B-10-15	20-Dec-05	ND	ND	8.3 L,Y	ND	0.016	0.10	0.040	0.018	ND	ND	ND	ND	ND	ND	ND
B-11-5	21-Dec-05	ND	NA	4.9 Y	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-11-10	21-Dec-05	15	NA	4.3 L,Y	0.75	1.9	0.42	1.7	0.72	ND	0.082	ND	ND	ND	ND	ND
B-11-14	21-Dec-05	8.3	NA	1.7 Y	0.26	0.26	0.25	0.65	0.26	ND	0.0096	ND	ND	ND	ND	ND
B-12-5	20-Dec-05	6.4	6.2 Y	38 L,Y	0.45	1.0	0.18	0.66	0.22	ND	ND	ND	ND	ND	ND	ND
B-12-11	20-Dec-05	5.6	5.5 Y	26 Y	0.18	0.0091	0.46	0.22	0.031	ND	ND	ND	ND	ND	ND	ND
B-13-6	21-Dec-05	2.3	NA	16 H,Y	0.013 C	0.0095 C	0.076	0.25	0.10	ND	ND	ND	ND	ND	ND	ND
B-13-10	21-Dec-05	ND	NA	13 L,Y	0.016	0.057	0.018	0.067	0.028	ND	ND	ND	ND	ND	ND	ND
B-13-15	21-Dec-05	500	NA	18 L,Y	1.7 C	19	12	53	20	ND	ND	ND	ND	ND	ND	ND
B-14-5	21-Dec-05	72	NA	19 L,Y	0.62 C	3.6	1.4	7.0	2.6	ND	11	ND	ND	ND	ND	ND
B-14-10	21-Dec-05	61	NA	27 H,L,Y	0.59 C	3.3	1.2	5.3	2.1	ND	1.9	ND	ND	ND	ND	ND
B-14-16	21-Dec-05	27	NA	3.8 H,Y	0.75	1.4	0.37	0.59	1.2	ND	1.5 b	ND	ND	ND	ND	ND

Table 2. Chemical Analytic Results Summary, December 2005, McGrath Steel, Emeryville, California

Sample ID	Sample Date	TPH-G	TPH-MS	TPH-D	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME	EDC	EDB
Ground Water:																
Analytic Method:		*8015B*	*8015B*	*8015B*	*8021B*	*8021B*	*8021B*	*8021B*	*8021B*	*8260B*	*8260B*	*8260B*	*8260B*	*8260B*	*8260B*	*8260B*
Units:		*mg/L (ppm)*														
MW-3	20-Dec-05	54	NA	2.6 L,Y	6.0	10	1.7	7.0	2.6	ND	12	ND	ND	ND	ND	ND
B-8-W	20-Dec-05	6.5	NA	2.3 L	0.32	0.99	0.14	0.69	0.27	ND	0.86	ND	ND	ND	0.0097	ND
B-9-W	20-Dec-05	1.2	NA	0.77 L,Y	ND	0.00057	0.015	0.0054	ND	ND	0.013	ND	ND	ND	ND	ND
B-10-W	20-Dec-05	0.58	0.55 Y,b	0.099 L,Y	0.0017 C	0.0083	0.034	0.11	0.034	ND	0.0018	0.0019	ND	ND	0.0024	ND
B-11-W	21-Dec-05	210	NA	100 L,Y	6.0	10	1.4	7.5	3.5	ND	0.36	ND	ND	ND	ND	ND
B-12-W	20-Dec-05	260	180 Y,b	20 L,Y	24	39	6.5	24	10	ND	0.26	ND	ND	ND	ND	ND
B-13-W	21-Dec-05	290	NA	13 L,Y	8.6	34	6.7	26	11	ND	0.55	ND	ND	ND	ND	ND
B-14-W	21-Dec-05	47	NA	1.6 L,Y	1.5	5.9	1.2	4.9	2.2	ND	12	ND	ND	ND	ND	ND

Notes and Abbreviations

8015B = Modified USEPA Method 8015 for total volatile or extractable petroleum hydrocarbons; silica gel cleanup method USEPA 3630C conducted on TPH-D samples

8021B = USEPA Method 8021B for volatile aromatic compounds by gas chromatography-mass spectrometry (GCMS)

8260B = USEPA Method 8260B for volatile organic compounds (VOCs) by GCMS

b = results estimated or target tentatively identified

C = presence confirmed, but relative percent difference (RPD) between columns exceeds 40%

DIPE = di-isopropyl ether

EDB = ethylene dibromide; 1,2-dibromoethane

EDC = ethylene dichloride; 1,2-dichloroethane

ETBE = ethyl tert-butyl ether

H = heavier hydrocarbons contributed to the quantitation

L = lighter hydrocarbons contributed to the quantitation

mg/kg = milligrams per kilogram; equivalent to parts per million (ppm) in soil

mg/L = milligrams per liter; equivalent to parts per million (ppm) in ground water

MTBE = methyl tertiary butyl ether

NA = not analyzed, not required

ND = not detected above laboratory reporting limit

TAME = tert-amyl methyl ether

TBA = tert-butyl alcohol

TPH-D = total petroleum hydrocarbons as diesel (C10-C24 range)

TPH-G = total petroleum hydrocarbons as gasoline (C7-C12 range)

Y = sample exhibits chromatographic pattern which does not resemble standard

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

June 27, 2005

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. Earl Mau
Clearprint Paper Co., Inc.
1482 67th St.
Emeryville, CA 94608

Mr. Don Fleischauer
GPC International
510 Broad Hollow Rd.
Melville, New York, 11747

Dear Messrs. Mau and Fleischauer:

Subject: Fuel Leak Site Case Closure, Clearprint Paper Co., 1482 67th St., Emeryville, CA 94608; Case No. RO0000055.

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Up to 610 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg), 340 ppm TPH as diesel, 930 ppm Oil and Grease, 33 ppm zinc, 1.3 ppm naphthalene, 1.1 ppm anthracene, 1.1 ppm fluoranthene and 0.96 ppm pyrene remain in soil at this site.

If you have any questions, please call Barney Chan at (510) 567-6765. Thank you.

Sincerely,

Donna L. Drogos, P.E.
LOP Program Manager

Enclosures:
1. Case Closure Letter
2. Case Closure Summary

cc: Ms. Cherie McCaulou
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Toru Okamoto (w/enc)
State Water Resources Control Board
Underground Storage Tank Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Mr. George Warren (w/enc)
City of Emeryville Fire Dept.
1313 Park Ave.
Emeryville, CA 94608

B. Chan, (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 27, 2005

Mr. Earl Mau
Clearprint Paper Co., Inc.
1482 67th St.
Emeryville, CA 94608

Mr. Don Fleischauer, Exec. VP
GPC International
510 Broad Hollow Rd.
Melville, New York, 11747

Dear Messrs. Mau and Fleischauer:

Subject: Fuel Leak Site Case Closure, Clearprint Paper Co., 1482 67th St., Emeryville, CA 94608; Case No. RO0000055.

This letter confirms the completion of a site investigation and remedial action for the four (4) underground storage tanks, (1- 9450 gallon, 1- 8000 gallon, 1- 1000 gallon and 1- 10000 gallon), formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director
Alameda County Environmental Health

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: April 14, 2005

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6719
Responsible Staff Person: Robert W. Schultz	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Clearprint Paper Co. Inc.		
Site Facility Address: 1482 67th Street, Emeryville, California 94608		
RB Case No.: Geotracker 01-2083	Local Case No.: STID 320	LOP Case No.: RO0000055
URF Filing Date: 10/9/94	SWEEPS No.: ---	APN: 049-1512-006 01 and 02

Responsible Parties	Addresses	Phone Numbers
Clearprint Paper Co., Inc.	Attn. Earl Mau 1482 67th Street Emeryville, CA c/o GPC International Attn. Don Fleischauer, Exec. VP 510 Broad Hollow Road Melville, New York 11747	510-652-4762 631-752-9600

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	9,450	mineral spirits	removed	October 3 & 4, 1994
2	8,000	solvent – Soltrol 10 (2,2,4-trimethylpentane and related isoparaffins)	removed	October 3 & 4, 1994
3	1,000	mineral spirits	removed	October 3 & 4, 1994
4	10,000	mineral spirits	removed	October 3 & 4, 1994
Piping			removed	October 3 & 4, 1994

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: UST failure – holes noted in tanks 1 and 3	
Site characterization complete? Yes	Date Approved By Oversight Agency: -----

Monitoring wells installed? Yes	Number: 3	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 6.78	Lowest Depth: 11.03	Flow Direction: west
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity:
The East Bay Plain Groundwater Basin Beneficial Use Evaluation Report prepared by the Regional Water Quality Control Board, San Francisco Bay Region, dated June 1999, inventoried all municipal, domestic, industrial and irrigation wells permitted by the Alameda County Flood Control District. The East Bay Plain Study states that 0 permitted water wells were located in Emeryville, and that no extractive beneficial uses are planned in the future. The site is within the Emeryville Brownfields Groundwater Management Zone identified by the East Bay Plain study. The City of Emeryville has developed a sub-regional groundwater monitoring plan to protect groundwater in this Brownfields Zone. Older (and consequently un-permitted) deeper wells were also considered in the East Bay Plain study. The density of deeper wells in Emeryville as evaluated from the Dockweiler Report (dated 1912) is fairly low at about 1 deep well per square mile.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: San Francisco Bay, 2000 ft west of the site
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	4 USTs	Offsite Disposal. H&H Ship Service 220 Terry A. Francois Street San Francisco, CA 94107	October 3 & 4, 1994
Piping	unknown	unknown	October 3 & 4, 1994
Free Product	none	---	---
Soil	520 cu yds	Offsite Disposal. Gibson Oil and Refining, Bakersfield, CA	October 5 through 11, 1994
Groundwater	6,900 gals.	Offsite Disposal. Petroleum Recycling Co. Patterson, CA	October 5 through 11, 1994

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments 1thrrough 5 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	610	610	8,600**	<0.5
TPH (Diesel)	340	340	19,000	<0.4
Oil & Grease	930	930	12,000	NA
Benzene	20**	20**	730**	<0.5
Toluene	72**	72**	2,100**	<0.5
Ethylbenzene	35**	35**	300**	<0.5
Xylenes	180**	180**	1,400**	<0.5
Heavy Metals	33***	33***	NA	NA
MTBE	NA	NA	<1.0*	<1.0*
Other (8240/8270)	1.3****	1.3****	NA	NA

* <5.0 ppb TAME, <5.0 ppb ETBE, <5.0 ppb DIPE, <10 ppb TBA, <0.5 ppb EDB, and <0.5 ppb 1,2-DCA

Soil not analyzed for MTBE as USTs were never used for fuel. Mineral spirits and solvent (2,2,4-trimethylpentane) storage only.

** detected concentration believed to be the result of source at upgradient McGrath Steel site (RO-63) as data is from an offsite upgradient monitoring well that is adjacent to the former McGrath Steel UST location.

Heavy Metals = <0.25 mg/kg Cadmium (Cd), 20 mg/kg Chromium (Cr), 31 mg/kg Nickel (Ni), 31 mg/kg Lead (Pb) and 33 mg/kg Zinc (Zn), detected concentrations are shown in the attached tables and are consistent with anticipated naturally occurring background levels

***Highest LUFT 5 heavy metal concentration was 33 mg/kg Zinc.

NA = not analyzed or not applicable

****1.3 mg/kg naphthalene, 1.1 mg/kg anthracene, 1.1 mg/kg fluoranthene and 0.96 mg/kg pyrene

Site History and Description of Corrective Actions:
Clearprint Paper Company manufactured paper products from 1950 until approximately 2002. Manufacturing operations at the site included use of mineral oil. Two tanks were installed in 1950 through 1951, and two additional tanks were installed in 1978 through 1979. The underground storage tanks were formerly located onsite and contained mineral oil and the solvent Soltrol (2,2,4trimethylpentane and related isoparaffins). In 1990, Clearprint Paper Company discontinued the use of solvents at the site.

- All four tanks were removed from the site in October 1994.
- During removal of the underground storage tanks in 1994, overexcavation of soils surrounding the tanks was performed and soil was disposed offsite. Twenty-six confirmation soil samples and two groundwater samples were collected.
- Six soil borings were drilled in 1995. Three of the borings were backfilled with cement grout and monitoring wells were installed in the 3 remaining borings.
- The monitoring wells were sampled once in 1995 and three additional times in 2004.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes No
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.
Site Management Requirements: Case closure for this fuel leak site is granted for commercial/industrial use only. If a change in land use to residential or other more sensitive use occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated.
Should corrective action be reviewed if land use changes? Yes
List Enforcement Actions Taken: None
List Enforcement Actions Rescinded: None

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

In 1995, dissolved gasoline, including benzene, toluene, ethylbenzene and xylenes (BTEX), was detected in monitoring wells MW-1 and MW-3. Further, free product was observed in well MW-3 in 1996. Well MW-3 is upgradient of the site and is adjacent to former USTs at McGrath Steel, 6655 Hollis St., Emeryville. McGrath Steel is an active Leaking Underground Fuel Tank (LUFT) case being overseen by ACEH (case no. RO-63). Detectable levels of BTEX were present in site soils within the anticipated range of water level fluctuations. No BTEX was detected in shallow soil samples (<3 ft bgs). USTs at the site do not appear to have been used for fuel storage. Polynuclear aromatic hydrocarbons (PAHs) were detected in one soil sample only and appear to be limited in extent. The detected metals concentrations are consistent with anticipated naturally occurring background levels.

Soil and groundwater investigation at the site was limited to the UST vicinity only. No investigation of soil and groundwater conditions beneath the building immediately adjacent to the sidewalk) was performed. Accordingly, if land use changes to residential or other more sensitive use, site conditions will need to be re-evaluated.

In addition, boring logs for sample locations SB-1, SB-2 and SB-3 were not submitted to ACEH.

Conclusion:
Based on the considerations above, the site is likely not the source of the observed free product or the detected BTEX concentrations. The detected PAHs are localized and do not appear to pose a significant threat. Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment based upon the information available in our files to date. No further investigation or cleanup is necessary. ACEH staff recommend case closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Robert W. Schultz	Title: Hazardous Materials Specialist
Signature: Robert W. Schultz	Date: 5/11/05
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature:	Date: 05/11/05

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: ~~Associate Water Resources Control Engineer~~ Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 5/12/05
Signature: C McCaul	Date: 5/12/05

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH:	Date of Well Decommissioning Report: 6/23/05	
All Monitoring Wells Decommissioned: Yes (No)	Number Decommissioned: 2	Number Retained: 1
Reason Wells Retained: MW 3 INCORPORATED INTO RO63 GW MONITORING NETWORK		
Additional requirements for submittal of groundwater data from retained wells: NA		
ACEH Concurrence - Signature: Barney Chan	Date: 6/30/05	

Attachments:
1. Site Vicinity Map
2. Site Plan (2 pages)
3. Soil Analytical Data (19 pages)
4. Groundwater Analytical Data (3 pages)
5. Boring Logs (9 pages)

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.

Re: 1482-67th St. Emeryville

Post-it® Fax Note 7671	Date 5/12/05 # of pages ▶ 1
To Bob Schultz	From Cherie McCaulou
Co./Dept. ACEH	Co RWQCB
Phone #	Phone # 510-622-2342
Fax # 510 337-9335	Fax # 510-622-2464

** TOTAL PAGE.01 **

VII. REGIONAL BOARD NOTIFICATION

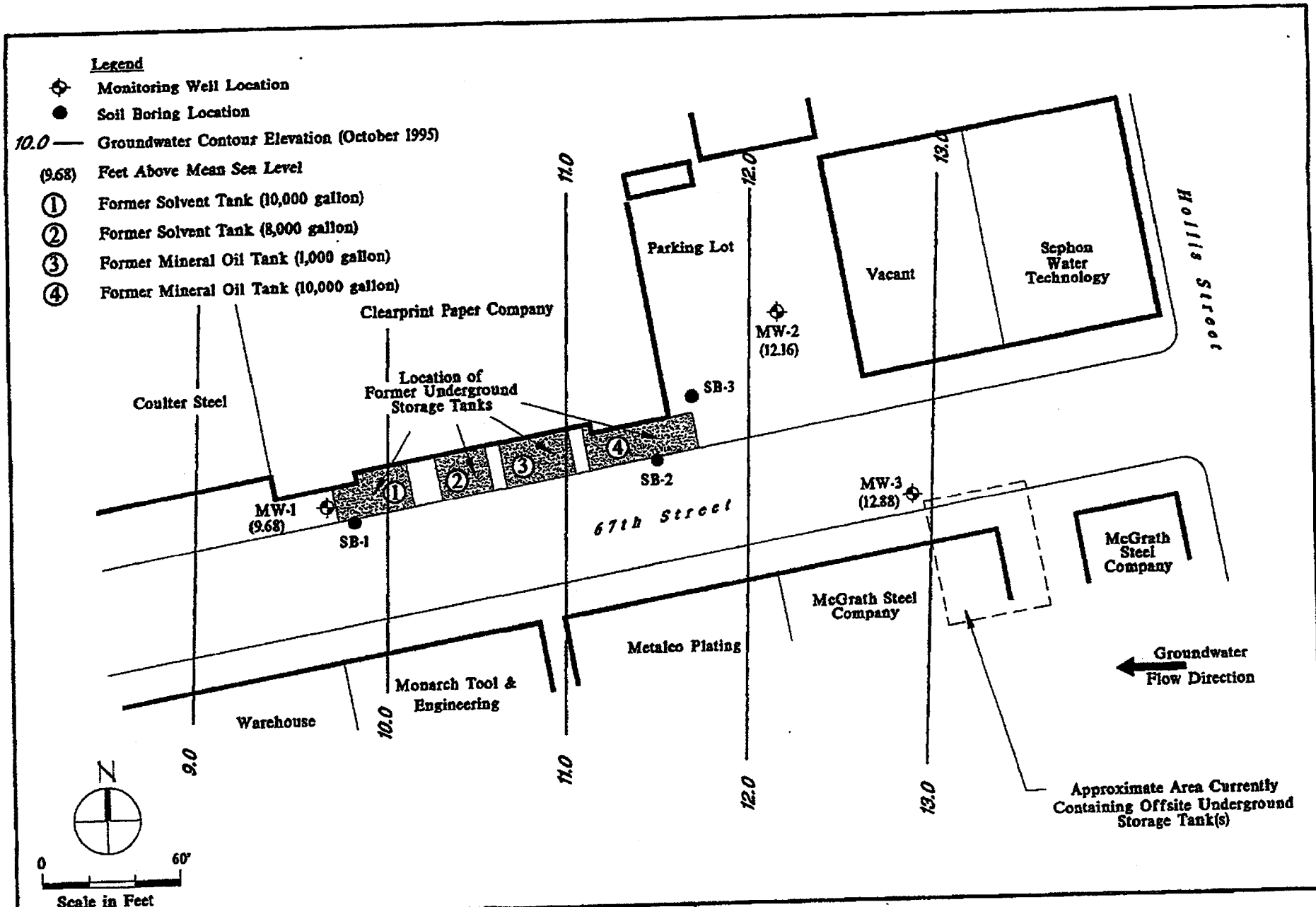
Regional Board Staff Name:	Title: Associate Water Resources Control Engineer
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature:	Date:

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH:	Date of Well Decommissioning Report:	
All Monitoring Wells Decommissioned: Yes No	Number Decommissioned:	Number Retained:
Reason Wells Retained:		
Additional requirements for submittal of groundwater data from retained wells:		
ACEH Concurrence - Signature:	Date:	

Attachments:
1. Site Vicinity Map
2. Site Plan (2 pages)
3. Soil Analytical Data (19 pages)
4. Groundwater Analytical Data (3 pages)
5. Boring Logs (9 pages)

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.



ENVIRONMENTAL STRATEGIES CORPORATION
101 Metro Drive Suite 650
San Jose, California 95110
408-453-6100

Figure 6
Groundwater Contour Elevation (November 21, 1995)
Clearprint Paper Company
Emeryville, California

CLEAR003.DWG

Attachment 2

Table 1

Historical Groundwater Elevations
Clearprint Paper Company Facility
Emeryville, California

Monitoring Well	Date	Depth to Groundwater (Ft)	Depth to Free Product (Ft)	Groundwater Elevation (Ft MSL)	Change in Elevation (ft)
MW-1	10/17/95	10.21	N/A	10.11	
	11/21/1995	10.64	N/A	9.68	-0.43
	12/23/1996	9.07	N/A	11.25	1.56
	1/15/1996	9.34	N/A	10.98	-0.27
	2/16/1996	7.46	N/A	12.86	1.88
	3/28/1996	7.48	N/A	12.84	-0.02
MW-2	10/17/95	10.28	N/A	12.91	
	11/21/1995	11.03	N/A	12.16	-0.75
	12/23/1996	9.21	N/A	13.98	1.13
	1/15/1996	9.40	N/A	10.92	-3.06
	2/16/1996	7.35	N/A	12.97	2.05
	3/28/1996	7.32	N/A	13.00	0.03
MW-3	10/17/95	9.42	N/A	13.31	
	11/21/1995	9.85	N/A	12.88	-0.43
	12/23/1996	8.52	N/A	14.21	1.14
	1/15/1996	8.72	N/A	11.60	-2.61
	2/16/1996	7.08	7.04 (a)	13.24	1.64
	3/28/1996	6.78	6.75 (a)	13.54	0.30

a/ = Measurable free product was brown with a solvent/hydrocarbon odor and low viscosity.

Attachment 4

Table 4
Analytical Result Summary for Groundwater Samples
Clearprint Facility, Emeryville, CA
Supplemental Investigation, October 1995 (ug/l) (a)

Analyte	MW-1	MW-2	MW-3	201(duplicate of MW-1)
TPH-diesel	590	65	220	650
TPH-gasoline	8100	50 U	8600	7400
Mineral oil	100 U	100 U	100 U	100 U
Benzene	160	0.50 U	730	120
Toluene	710	0.8 U	2100	570
Ethylbenzene	800	0.50 U	270	250
Xylenes (total)	1500	0.9 U	1400	1300

a/U = undetected at indicated detection limit

Groundwater Sample Summary
Clearprint, Emeryville, Ca (a)

Date	Location	Benzene	Toluene	Ethylbenzene	Xylenes	TPHg	TPHd	TPHmin	TPH C6-C40	TCE	cis-1,2-DCE
10/17/1995	MW-1	160	710	300	1,500	~~NA~~ 8100	590	<100	NA	NA	NA
9/28/2004	MW-1	2	<0.001	4	<0.003	<0.5	<0.4	<0.4	NA	NA	NA
11/18/2004	MW-1	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	ND**	<0.5	<0.5
10/17/1995	MW-2	<0.5	0.8	<0.5	0.9	<50	65	<100	NA	NA	NA
9/28/2004	MW-2	<0.001	<0.001	<0.001	<0.003	<0.5	<0.4	<0.4	NA	NA	NA
11/18/2004	MW-2	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	ND***	47	0.9
12/3/2004	MW-2	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	68	1.9
10/17/1995	MW-3*	730	2,100	270	1,400	8,600	220	<100	NA	NA	NA
	MCLs	0.5	150	300	1,750					5	6
	ESLs					100	100	100			

a\ ug/l
ND\ not detected at instrument reporting limit
TPH\ total petroleum hydrocarbons
MCLs\ Maximum Contaminant Levels
ESLs\ San Francisco Bay RWQCB Environmental Screening Levels (February 2005)
*\ MW-3 no longer exists
**\ reporting limit for C6-C12 was 0.50; for C12-22 and C22-C40 was 0.40

BORING LOG
Environmental Strategies Corporation
101 Metro Drive, Suite 650
San Jose, CA 95110

PROJECT
[redacted]ARPRINT
1492 67TH ST
Emeryville CA
MACBRITE

Boring No. MW-3
Sheet 1 of 2
Date Drilled 10/11/95
Approved by:

Drilling Co. WEST HAZMAT
Driller LEE FOX
ESC Geologist JBENSON

Boring Location SE of TANK 4
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 8"
Inside Diameter 3.75"
Total Depth 29.4

Outer Casing
Type N/A
Diameter
Length

Well Casing/Screen/Filter Pack
Type/Diameter Sched 40/2"
Screen Length
Screen Slot Size 0.01 Filter Pack #2/12
Total Depth 29.4

Sampler
Method SS Split spoon
Length (ft) 18"
Hammer (lbs)/Fall (ins) 140 lb 26"

Blows/Ft.	Sample Depth	Water Level Time & Date	Sample Time	PID (ppm)	Core Sample Number	Depth (ft)	Description	Graphic Log	Well Construction
N/A				NA		1	Asphalt / Base Matl		
						2			
						3			
13				13.8		4	Mod yel brown 10YR 5/4	CL	
28				29.9			Silty clay some 10YR 2/2		
13				20.1			Mottled		
				11.2		5			
10				28.9		6	Lt olive gray 5Y 5/2 mottled		
15			1515	32.6			w/ mod brn 5YR 3/4 silty		
23				18.9		7	clay		
				16.7					
						8			
14			1525	78.0			Some grayish green		
17				1128.8		9			
28				149.6					
				231.1		10			
20			1530	1172.1		11	Mod yel brn 10YR 5/4 Some		Strong petro/solvent odor
28				565.6			Gray green 5G 5/2 Mottled silty	SM	
32				72.9		12	Very coarse sandy gravel some clay		
						13			
13				29.4			Mod yel brn 10YR 5/4 silty clay		
13				7.6		14	w/ some coarse sand.		
21				4.3					
				4.0		15			
23				4.4		16	Mod yellow brn 10YR 5/4 Very		
27				8.3			Coarse clay w/ some gravel		
38				10.2		17			

BORING LOG
Environmental Strategies Corporation
101 Metro Drive, Suite 650
San Jose, CA 95110

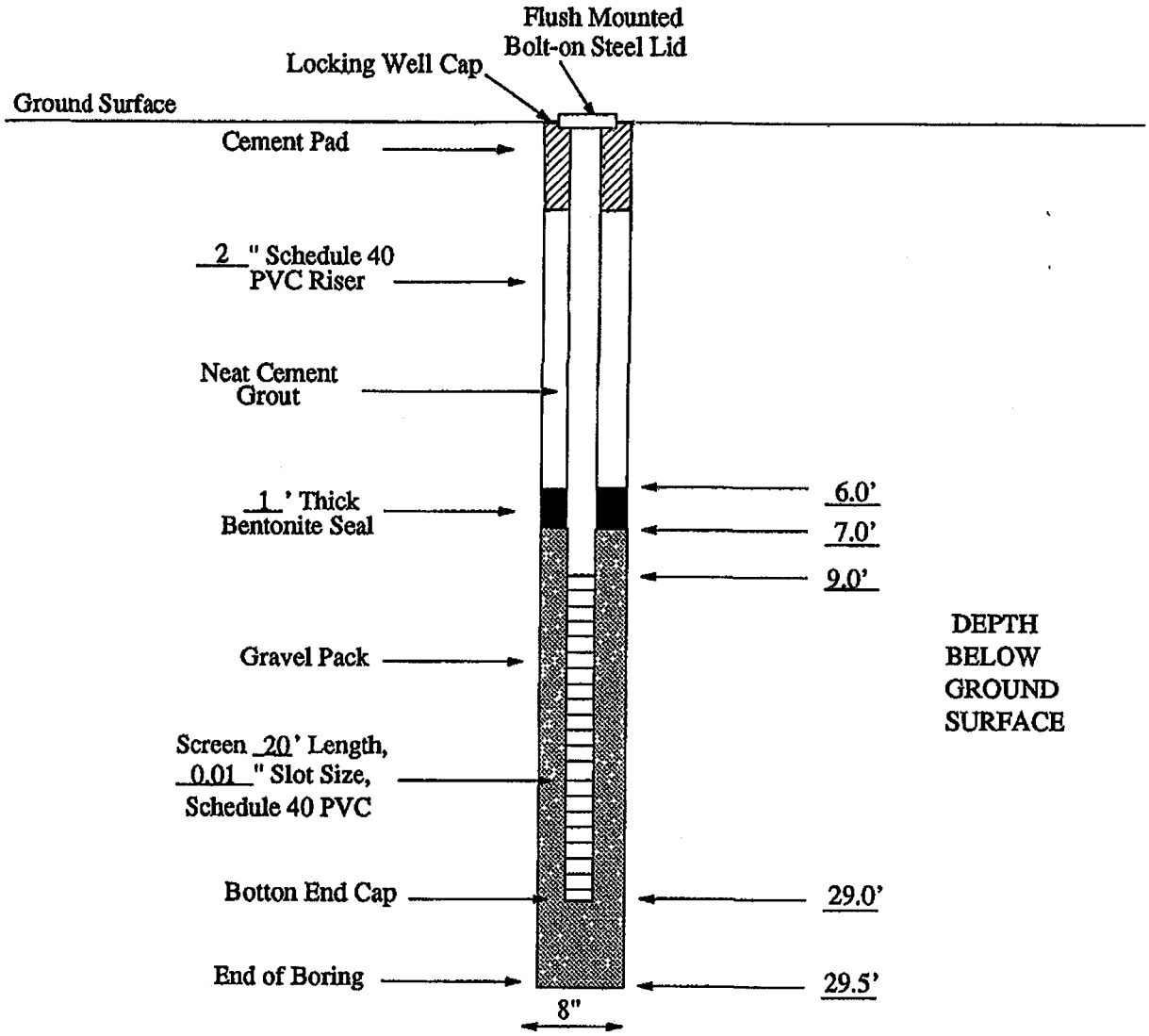
PROJECT

Boring No. [redacted]
Sheet ___ of ___
Date Drilled ___

Approved by:

Blows/Ft	Sample Depth	Water Level Time & Date	Sample Time	PID (ppm)	Core Sample Number	Depth (ft)	Description	Graphic Log	Well Construction
						18			
22			1600	0			Same as above	CL	
26				2.0		19			
30				0					
				0		20			
16						21			
19									
26						22			
						23			
12				0			Same as above w/ some mottling		
17				1.5		24	silty clay	CL	
30			1638	0					
				0		25			
+50						26	No recovery Fine silty sand		
muck in augers						27	Mucking augers some grayish black org	SM?	
						28			
						29	End of boring 29.4'		
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			

SITE NAME: Clearprint
LOCATION: Emeryville, California
DATE: 10/11/95



AS-BUILT DIAGRAM FOR WELL MW-3

ENVIRONMENTAL STRATEGIES CORP.
101 Metro Drive Suite 650
San Jose, California 95110
408-453-6100

j:\data\projects\10-11-95.drw

Appendix C

STANDARD GEOPROBE™ DPT SAMPLING PROCEDURES

Soil Sampling

Direct push technology (DPT) soil core sampling using Geoprobe™ or similar methods is accomplished using a nominal 4-foot long, 2-inch diameter stainless steel steel drive probe and extension rods. The drive probe is equipped with nominal 1-1/2 inch diameter clear plastic poly tubes that line the interior of the probe. The probe and insert tubes are together pneumatically driven using a percussion hammer in 4-foot intervals. After each drive interval the drive probe and rods are retrieved to the surfaced. The poly tube containing subsurface soil is then removed. The drive probe is then cleaned, equipped with a new poly tube and reinserted into the boring with extension rods as required. The apparatus is then driven following the above procedure until the desired depth is obtained. The poly tubes and soil are inspected after each drive interval with lithologic and relevant drilling observations recorded. Soil samples are screened for organic vapors using an organic vapor meter (OVM), photo-ionization detector (PID) or other appropriate device. OVM/PID readings, soil staining and other relevant observations are recorded. Selected soil sample intervals can be cut from the 4-foot intervals for possible analytical or geotechnical testing or other purposes.

The soils contained in the sample liners are then classified according to the Uniform Soil Classification System and recorded on the soil boring logs.

Sample liners selected for laboratory analyses are sealed with Teflon sheets, plastic end caps, and silicon tape. The sealed sample liner is then labeled, sealed in a plastic bag, and placed in an ice chest cooled to 4°C with crushed ice for temporary field storage and transportation. The standard chain-of-custody protocol is maintained for all soil samples from the time of collection to arrival at the laboratory.

Groundwater Sampling

Groundwater sampling is performed after the completion of soil sampling and when the boring has reached its desired depth. The steel probe and rods are then removed from the boring and new, nominal 1-inch diameter PVC solid and perforated temporary casing is lowered into the borehole. Alternatively, a retractable screen sampling device such as a Hydropunch™ can be driven to the desired depth and pulled back to expose the screened interval. Depth to water is then measured using an electronic groundwater probe. Groundwater samples are collected using a stainless steel bailer, disposable Teflon™ bailer, or check valve or peristaltic pump with disposable Teflon™ or polyethylene sample tubing.

After the retrieval of the bailer, groundwater contained in the bailer (or discharged from sample tubing) is decanted into laboratory provided containers. The containers are then sealed with Teflon coated caps with no headspace, labeled, and placed in an ice chest for field storage and transportation to a state certified analytical laboratory. The standard chain-of-custody protocols are followed from sample collection to delivery to the laboratory. A new bailer (or sample tubing) is used for each groundwater sampling location to avoid cross contamination.

AllWest

Groundwater Monitoring Well Development

Groundwater monitoring wells will be developed with the combination of surging and pumping actions. The wells will be alternately surged with a surging block for five minutes and pumped with a submersible pump for two minutes. The physical characteristics of the groundwater, such as water color and clarity, pH, temperature, and conductivity, will be monitored during well development. Well development will be considered complete when the groundwater is relatively sediment-free and groundwater characteristic indicators are stabilized (consecutive readings within 10% of each other).

Groundwater will be sampled from the developed wells no sooner than 48 hours after well development to allow stabilization of groundwater conditions. Prior to groundwater sampling, a proper purging process will be performed at each well. The purpose of well purging is to remove fine grained materials from the well casing and to allow fresh and more representative water to recharge the well. Prior to well purging, an electric water depth sounder will be lowered into the well casing to measure the depth to the water to the nearest 0.01 feet. A clear poly bailer will then be lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer will be carefully examined for any floating product or product sheen.

After all initial measurements are completed and recorded, the well will be purged by an electrical submersible pump or a bailer. A minimum of 3 well volumes of groundwater will be purged and groundwater characteristics (temperature, pH, and conductivity) monitored at each well volume interval. Purging is considered complete when indicators are stabilized (consecutive readings within 10% of each other) and the purged water is relatively free of sediments.

Groundwater sampling will be conducted after the water level has recovered to at least 80% of the initial level, recorded prior to purging. The groundwater sample will be collected by a disposable bailer. Upon retrieval of the bailer, the retained water will be carefully transferred to appropriate sample bottle furnished by the analytical laboratory. All sample bottles will have a Teflon lined septum/cap and be filled such that no headspace is present. Then the sample bottles will be labeled and immediately placed on ice to preserve the chemical characteristics of its content.

To prevent cross contamination, all groundwater sampling equipment that comes in contact with the groundwater will be thoroughly decontaminated prior to sampling. A disposable bailer will be used to collect the groundwater samples. Sample handling, storage, and transport procedures described in the following sections will be employed. All well development and purging water will be temporarily stored on-site in 55-gallon drums awaiting test results to determine the proper disposal method.

AllWest

Soil Sampling with Hollow-Stem Auger

A soil boring is advanced with a truck-mounted drill rig using 8-inch outside diameter (O.D.), 3.75-inch inside diameter (I.D.), and 5-foot long hollow stem augers. The augers are advanced with a center plug at the lead auger section and drilling rods inside the hollow stem to create an open borehole with the augers as the boring casing. After the augers are advanced to the desired sampling depth, the center plug is removed and a soil sampler is attached to the drilling rod. The soil sampler contains three 2-inch diameter and 6-inch long brass tubes is driven 18 inches beyond the auger depth. The brass tube acts as the sample container to contain the soil core generated during the sampler drive. After the retrieval of the soil sampler, the brass tube containing the soil core is removed and sealed with Teflon tape and plastic end caps. The soil sample is then placed in an ice chest for field storage and transport to the laboratory. New sample tubes are use during each soil sampling drive to prevent cross-contamination.

Groundwater Monitoring Well Installation

A groundwater monitoring well will be installed in each of the boreholes after the designated boring termination depth is reached. The well will be installed through the center of the hollow stem augers. After the well casing has been set, the augers will be removed in sections while the sand filter pack is being placed. Well casing composed of 2-inch diameter schedule-40 PVC pipes will be employed. The screen section of the casing will have factory perforated 0.02-inch slots and extend 10 feet below and 5 feet above the groundwater table. The blank section (non-perforated well casing pipe) will complete the well casing up to the ground surface. The length of screen and blank section of well casing will be adjusted in the field in accordance with groundwater and soil conditions encountered.

The filter pack around the well screen will be pre-washed #3 Monterey sand placed from the bottom of the well up to one foot above the screen section. A 1-foot bentonite seal will then be placed above the filter pack to prevent surface water infiltration. The remaining length of the annular space in the borehole will be backfilled with neat cement grout up to 2 feet below the ground surface. The uppermost two feet of the well casing will be protected by a traffic-rated Christy box set in concrete. A water-tight locking end-cap will be placed on top of the well casing to prevent surface water intrusion and unauthorized access. A diagram of typical groundwater monitoring well construction is included in Appendix A.

AllWest

Groundwater Monitoring Well Diagram (Generalized)