

STID 1879

F A C S I M I L E

**To:** Amir Gholami  
**At:** Alameda County Environmental Health Services  
**Fax:** (510) 337 - 9335  
**Date:** October 31, 2000  
**Subject:** Harbert Transportation - 19984 Meekland Avenue, Hayward, CA. - Stid 1879  
Work Plan for Soil and Groundwater Sampling  
**Pages:** 6, including this cover page

Amir:

Attached are the text and figure of the Work Plan we originally sent on September 7, 2000 for 19984 Meekland Avenue, Hayward (Stid 1879). We need a written OK from you (if the Plan is acceptable) so our client can get pre-approval from the UST Cleanup Fund.

The first round of groundwater sampling has been completed, and we are preparing the monitoring report. We plan to include the soil sampling in the next quarterly report.

Please call me if you have questions.

Craig

From the desk of...

Craig Drizin  
Senior Civil/Environmental Engineer  
Weber, Hayes and Associates  
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Watsonville, California 95076



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**Weber, Hayes & Associates**  
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September 7, 2000  
 Project H9042.Q

Mr Amir K. Gholami  
 Alameda County Environmental Health Services  
 1131 Harbor Bay Parkway, Suite 250  
 Alameda, California 94502 - 6577

Subject: Work Plan for Soil and Groundwater Sampling  
 Harbert Transportation  
 19984 Meekland Avenue, Hayward, California

Dear Mr. Gholami:

Per the August 8, 2000 request by the Alameda County Environmental Health Services and discussions with Environmental Health and San Francisco Bay Regional Water Quality Control Board staff, Weber, Hayes and Associates prepared this ~~Work Plan for a soil and groundwater sampling at the Harbert Transportation leaking underground storage tank site at 19984 Meekland Avenue, Hayward, California. The purpose of the Work Plan is to describe the investigation plan we propose to delineate the extent of soil and groundwater impacted by petroleum hydrocarbons and volatile organic compounds released from the underground storage tanks at the site.~~

**SITE DESCRIPTION AND BACKGROUND**

19984 Meekland Avenue ("the site") is located at the corner of Meekland Avenue and Blossom Way in Alameda County California (Figure 1). The site is relatively flat, and is currently vacant.

The site was operated as a motor vehicle ~~fueling station since the 1940's.~~ Harbert Transportation used the site as a vehicle and fueling yard before selling the site to Durham Transportation in 1986.

In August 1989, four underground storage tanks (USTs) were removed from the site and properly disposed of. Soil and groundwater investigations at the site, conducted by Applied Geosystems, CTTS, and AGI Technologies, indicated that soil and groundwater at the site have been impacted by petroleum hydrocarbons (PHCs) and volatile organic compounds (VOCs). A list of reports documenting the soil and groundwater investigations is included in the Reference section. Ten groundwater monitoring wells currently exist at the site (Figure 2). Groundwater samples have not been taken from these wells since 1996. Documentation indicates that excavated soil from the UST removals was returned to the (plastic-lined) excavations (CTTS, November 1, 1992).

Documentation also indicates that two USTs were removed from the site in the early 1950's, and that a sump located in the northern portion of the site contained PHCs (CTTS, November 27, 1990) (see Figure 2).

*Handwritten notes:*  
 pit  
 soil UST and  
 had  
 excavations  
 with plastic lined?

## WORK PLAN FOR SOIL AND GROUNDWATER SAMPLING

We propose to collect soil and groundwater samples to define the current extent of PHC and VOC contamination in soil and groundwater at the site. We propose to collect soil samples from the unsaturated zone and groundwater samples from the ten existing monitoring wells and submit them to a state-certified laboratory for analyses of PHCs and VOCs. All field work will be conducted in accordance with site safety procedures defined in OSHA regulations 1910.120.

### Soil Sampling

We propose to drill 9 soil borings, at the locations shown on Figure 2, to determine the extent of PHCs and VOCs in soil at the site. The soil borings will be drilled with a vibratory-percussion, direct-push Geo-Probe drill rig. Soil samples will be collected according to our standard soil sampling methodology, which is described in Appendix A. Field work will be supervised by an experienced geologist or engineer. The field geologist/engineer will log the borings and screen soil samples for PHCs and VOCs with a Photoionization detector (PID). PID readings will be noted on the boring logs.

We propose to collect soil samples for possible laboratory analysis at 5-foot intervals in all of the borings. The four borings drilled at the locations of the former USTs and at the northwestern corner of the site will be continuously cored for lithologic information (see Figure 2).

We propose to analyze the soil samples for Total Petroleum Hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Methods 8015M and 8020, and for VOCs by EPA Method 8260. The analyses will be conducted by a state-certified analytical laboratory.

### Groundwater Sampling

We propose to collect groundwater samples from each of the ten existing monitoring wells at the site. The groundwater samples will be collected according to standard groundwater monitoring methodology, which is described in Appendix B.

We propose to analyze the groundwater samples for TPH-g and (BTEX) by EPA Methods 8015M and 8020, and for VOCs by EPA Method 8260. The analyses will be conducted by a state-certified analytical laboratory.

We will also measure the depth-to-groundwater to the closest 0.01 foot and calculate the relative groundwater elevation and flow direction at the site. We will arrange for a state-licensed surveyor

to survey the top-of-casing elevations to the nearest 0.01 foot and tie the measurements into mean sea level via a local bench mark.

Our standard methodology also includes measuring the groundwater physical parameters of pH, temperature, conductivity and dissolved oxygen. Dissolved oxygen measurements can be used as an indicator of biodegradation of PHCs in groundwater (Bushek and O'Reilly, March 1995).

### Technical Report

We will prepare technical report(s) documenting the location of the soil borings and investigation methodology, and summarizing the soil sample analytical results in tabular form. The report will also contain geologic logs of each soil boring and stratigraphic cross-sections along and perpendicular to the groundwater flow direction, an interpretation of the data collected, and recommendations for additional work (if necessary), and copies of the laboratory's Certificates of Analysis.

Depending on the timing of approval of this Work Plan, pre-approval of costs from the Underground Storage Tank Cleanup Fund, and availability of subcontractors, we will prepare either a combined or separate technical report documenting groundwater monitoring and sampling activities, including a tabular summary of depth-to-groundwater, groundwater elevation, and laboratory analytical results in each monitoring well; a map showing groundwater elevations, gradient and contaminant concentrations; interpretation of the data collected; and copies of the laboratory's Certificates of Analysis.

### LIMITATIONS

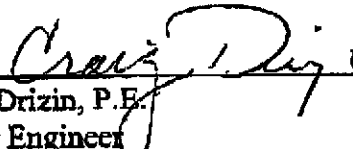
Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and proposals in this Work Plan are based on sampling and testing which are necessarily limited. Additional data from future work may lead to modification of the opinions expressed herein.

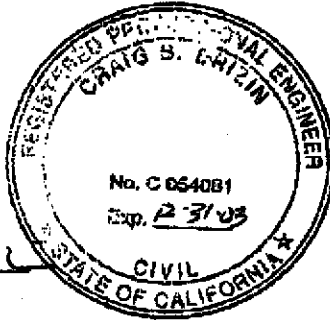
Work Plan for a Soil and Groundwater Sampling  
19984 Meekland Avenue, Hayward, California  
September 7, 2000

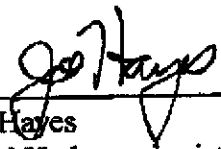
Thank you for this opportunity to be of service. If you have any questions or comments regarding this project please contact us at (831) 722 - 3580.

Sincerely yours,

Weber, Hayes And Associates

By:   
Craig Drizin, P.E.  
Senior Engineer



And:   
Joseph Hayes  
Certified Hydrogeologist #373

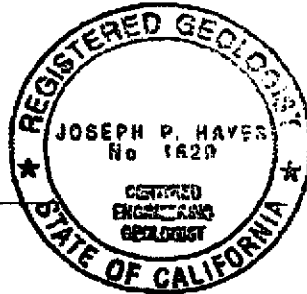


Figure 1: Location Map  
Figure 2: Site Plan with Monitoring Well and Proposed Boring Locations

Appendix A: Field Methodology for Soil Sampling at UST Release Sites  
Appendix B: Field Methodology for Groundwater Monitoring

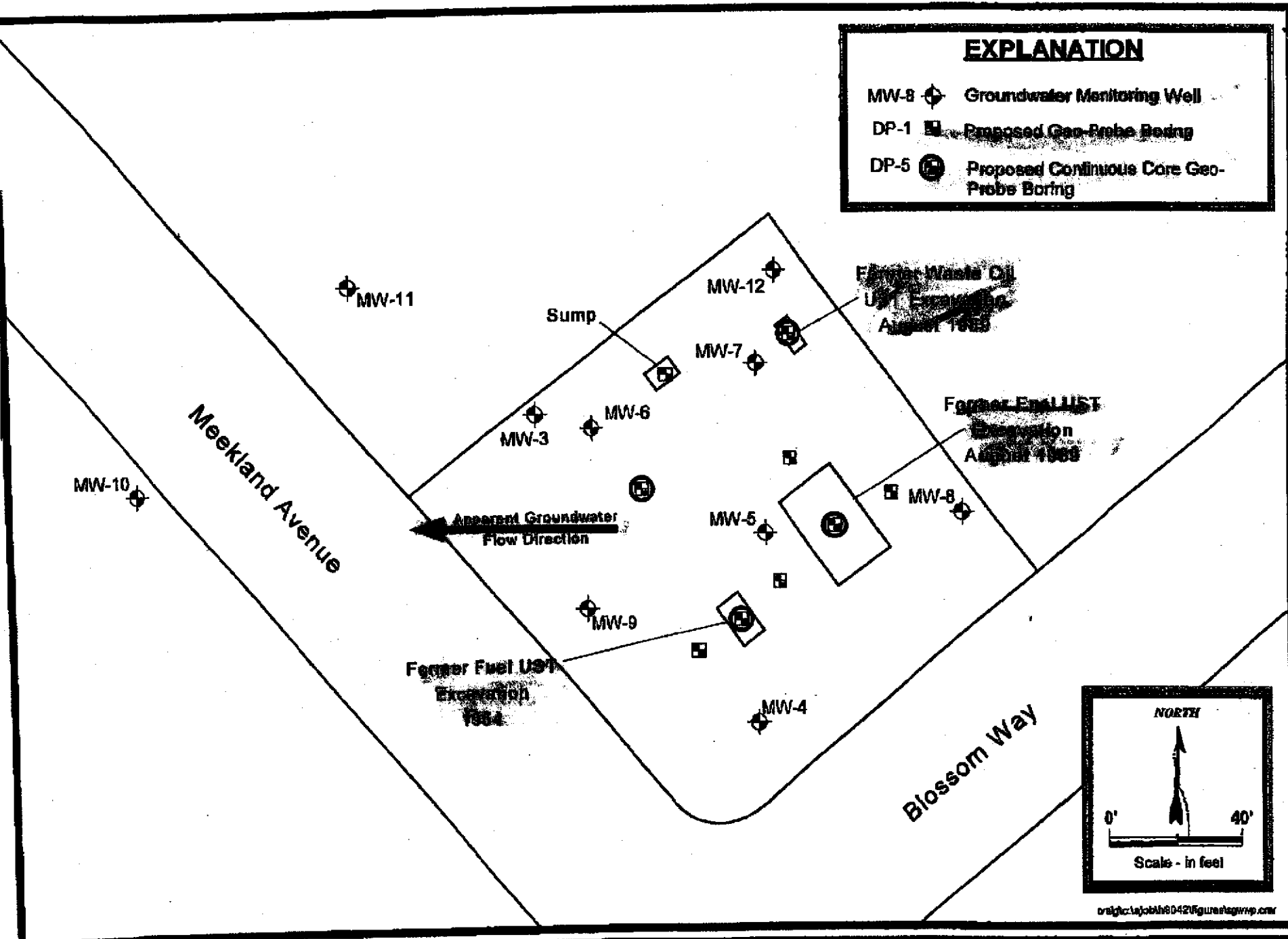
c: Mr. Jeffery Lawson  
Mr. Jerry Harbert  
Mr. Gregg Petersen  
Mr. Chuck Headlee

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Weber, Hayes and Associates

| EXPLANATION |   |
|-------------|---|
| MW-8        | Groundwater Monitoring Well               |
| DP-1        | Proposed Geo-Probe Boring                 |
| DP-5        | Proposed Continuous Core Geo-Probe Boring |



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**Site Plan with Monitoring Well and  
 Proposed Boring Locations**  
 Former Harbert Transportation Facility  
 19984 Meekland Avenue, Hayward, California

**Figure  
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 Project  
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