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August 22, 2003
Project H9042.Q/D

Mr. Jerry Harbert
46765 Mountain Cove Drive
Indian Wells, California 92210

Subject: **FUEL LEAK CASE CLOSURE REQUEST**
Groundwater Monitoring Report - Second Quarter 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Dear Mr. Harbert:

This report presents our request for closure of the fuel leak case at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California. This report also documents groundwater monitoring activities at the former Harbert Transportation facility during the second quarter 2003.

This request is based on:

- **Removing petroleum hydrocarbon-contaminated soil from the source area around the removed underground storage tanks and appurtenant piping to below site-specific cleanup goals**
- **Six consecutive quarters of post-cleanup groundwater monitoring indicating that dissolved petroleum hydrocarbon concentrations are below site-specific cleanup goals**
- **A Well/Conduit Search indicating that shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater**

The site-specific cleanup goals for soil and groundwater are based on Risk Based/Environmental Screening Levels developed by the San Francisco Bay Regional Water Quality Control Board. Natural attenuation will complete the cleanup of groundwater by reducing the residual dissolved petroleum hydrocarbon concentrations to below water quality goals.

Confirmation that shallow groundwater near the site is not a drinking water source and that there are no nearby conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater is the final piece of information necessary to request closure of the fuel leak case at this site.

EXECUTIVE SUMMARY

In the second quarter 2003, we completed a Well/Conduit Study that indicated shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater.

The horizontal conduit portion of the Well/Conduit Study entailed contacting all utility companies in the area of the site to obtain maps of their underground utilities, field checking depths and locations of utility trenches near the site, and preparing a map summarizing the depths and locations of utilities near the site. The deepest utility trench near the site reaches a depth of approximately eight feet below the ground surface (bgs). Shallow groundwater beneath the site is found at a depth of approximately 22 to 23 feet bgs. **Therefore, Utility trenches near the site could not serve as a horizontal conduit for the movement of petroleum hydrocarbon (PHC)-degraded groundwater.**

The vertical conduit portion of the Well/Conduit Study entailed contacting the Alameda County Public Works Agency (ACPWA) to obtain information on any type of well within a ½-mile radius of the site, field checking the location of all wells within ½-mile of the site, and preparing a table and map summarizing the well locations, construction, and use, where available. **There are no drinking water wells near the site. There are no wells near or downgradient of the site that could serve as a vertical conduit for the movement of PHC-degraded groundwater.**

Confirmation that shallow groundwater near the site is not a drinking water source and that there are no nearby conduits that could serve as paths for PHCs to reach deeper groundwater is the final piece of information necessary to request closure of the fuel leak case at this site. This information confirms that it is appropriate to use Risk Based/Environmental Screening Levels (ESLs) for residential indoor air impacts from PHC-degraded groundwater as the site-specific cleanup goals for groundwater. Please see our March 27, 2003 *Report* for the criteria used to select the site-specific cleanup goals.

Groundwater samples from the first quarter 2003 were analyzed for Halogenated Volatile Organic Compounds (HVOCs), because trace levels of these compounds had been detected in the original site investigation. The only HVOC detected was 1, 1, 2-trichloroethane, at a maximum concentration of 9 micrograms per liter (µg/L, parts per billion, ppb). This concentration is well below the ESL for Residential Indoor Air Impacts which we use as the site-specific cleanup goal. Please see our July 2, 2003 *Report* for details.

The groundwater monitoring event for the second quarter 2003 took place on June 24, 2003. Groundwater elevations at the site fell an average of approximately 0.14 feet since the previous quarter (March 2002). The calculated groundwater flow direction on June 24, 2003 was to the west, which is consistent with historical data. Groundwater analytical results from the second quarter 2003 indicate that dissolved PHC concentrations fluctuated somewhat; but were generally lower. **For the sixth consecutive quarter, dissolved PHC concentrations were below the site-specific cleanup goals.**

Methyl - tert - Butyl Ether (MTBE) was not detected in the groundwater samples collected this quarter. MTBE has not been detected in soil or groundwater at the site. Groundwater samples in the third quarter 2000 were analyzed for the fuel oxygenates Di-isopropyl Ether, tertiary Butyl

Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether. No fuel oxygenates were detected in these groundwater samples.

At this time we recommend closing the fuel leak case at this site. Site investigations, groundwater monitoring, and comparison of site data to ESLs show that residual PHCs in soil and groundwater do not threaten human health or groundwater resources. Residual PHCs in shallow groundwater at the site will degrade to groundwater quality goals (drinking water Action Levels/Maximum Contaminant Levels), and there are no conduits for transport of residual PHCs in groundwater.

INTRODUCTION

This report presents our request for closure of the fuel leak case at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California.

This request is based on:

- Removing petroleum hydrocarbon-contaminated soil from the source area around the removed underground storage tanks and appurtenant piping to below site-specific cleanup goals (Please see our March 27, 2003 *Proposed Site Specific Cleanup Goals - Revised, Groundwater Monitoring Report)*
- Six consecutive quarters of post-cleanup groundwater monitoring indicating that dissolved petroleum hydrocarbon concentrations are below site-specific cleanup goals (including the second quarter 2003 described in this report)
- A Well/Conduit Search indicating that shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater (also described in this report)

The site-specific cleanup goals for soil and groundwater are based on Risk Based/Environmental Screening Levels developed by the San Francisco Bay Regional Water Quality Control Board. Natural attenuation will complete the cleanup of groundwater by reducing the residual dissolved petroleum hydrocarbon concentrations to below water quality goals.

This report also documents groundwater monitoring activities at the former Harbert Transportation facility during the second quarter 2003. Groundwater monitoring has been required by the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health) pursuant to a release of petroleum hydrocarbons (PHCs) from underground storage tanks (USTs) at the site.

Environmental Health concurred with our first quarter 2002 recommendation to decrease the sampling frequency at selected monitoring wells. The current sampling schedule is:

Quarterly	Monitoring Wells MW-3, 5, 6, 9, and 10
Semi-Annually	Monitoring Wells MW-3, 5, 6, 7, 9, and 10 (Second Quarter)
Annually	All Wells, MW-3 - 12 (Fourth Quarter)

Groundwater monitoring activities conducted during this quarter included:

1. Measuring groundwater levels and checking for the presence of free product in all of the monitoring wells associated with the site
2. Measuring the physical parameters of pH, temperature, electrical conductivity, and dissolved oxygen concentration in each well
3. Collecting groundwater samples from the appropriate monitoring wells
4. Submitting the groundwater samples to a state-certified analytical laboratory for analysis of dissolved PHC concentrations following proper chain-of-custody procedures
5. Determining groundwater elevations, flow direction, and gradient in the vicinity of the site
6. Mapping the extent of the dissolved PHC plume in groundwater beneath the site
7. Preparing this technical report

SITE DESCRIPTION AND BACKGROUND

The site is located at the corner of Meekland Avenue and Blossom Way, a highly urbanized area in Alameda County, California (Figure 1). The site is located at an elevation of approximately 55 feet above sea level. The site is relatively flat. The area of the site is approximately 21,000 square feet. The site is located approximately 2,500 feet south of San Lorenzo Creek, and approximately 15,000 feet east of the San Francisco Bay (see Figure 1). There are no ecologically sensitive areas (such as surface water or wetlands) or homes to endangered species within 1,000 feet of the site. Domestic water at the site and in the vicinity is provided by the East Bay Municipal Utilities District.

Past, Current and Anticipated Future Site Activities and Uses

The site was used primarily for commercial activities in the past. It has 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. Durham used the site for similar activities.

The site is currently vacant. Anticipated future site uses are residential, so all Risk-Based/Environmental Screening for contaminants at the site was based on residential land use. Residual concentrations of PHCs are below the residential Risk-Based/Environmental Screening Levels, so no formal land use restrictions are necessary to protect human health (see below).

Summary of Site Investigations and Interim Remedial Actions

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 PHCs were present in soil and groundwater at the site. A list of reports documenting the soil and groundwater investigations is included in the Reference section. Twelve groundwater monitoring wells were installed by the former consultants. Ten of the monitoring wells still exist at the site (see Figure 2). Documentation from other consultants indicates the other two monitoring wells were properly destroyed, however this is not reflected in Alameda County well records - see the Well/Conduit Search section, below). Groundwater samples were not collected from the site between September 1996 and September 2000. Documentation indicates that excavated soil from the UST removals was returned to the (reportedly plastic-lined) excavations (CTTS, November 1, 1992).

Documentation also indicates that two USTs were removed from the site in the early 1950's (CTTS, November 27, 1990). These USTs were located near the dispensers for the USTs removed in 1989.

Weber, Hayes and Associates initiated a groundwater monitoring program at the site in the third quarter 2000. The groundwater monitoring program continued on a quarterly basis to the present. **Analytical data from the groundwater monitoring program indicate that shallow groundwater at the site has been impacted by PHCs. However, neither Methyl tert Butyl Ether (MTBE) nor other fuel oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether) have ever been detected in groundwater at the site.**

On February 14, 2001, we collected soil samples from the site to determine the extent of PHCs remaining in the unsaturated zone in accordance with our September 7, 2000 Work Plan. The Work Plan was approved by Environmental Health on November 1, 2000. **Analysis of the data collected indicated that the soils at the site were predominately fine grained, and confirmed that significant concentrations of PHCs remained in soils beneath the former dispensers and in the 1989 UST excavation which was backfilled with the excavated material.** We recommended excavation of these residual PHCs as an Interim Remedial Action (Weber, Hayes and Associates, June 18, 2001). Environmental Health concurred with this recommendation in a letter dated June 26, 2001.

On January 7 - 10, 2002 we conducted an interim remedial action excavation using six foot diameter augers to remove contaminated soils from the subsurface. Approximately 670 cubic yards (yds^3) of soil was removed from the subsurface. Approximately 594 yds^3 of PHC-impacted soil was transported to an appropriate landfill for disposal. The remaining soil was verified not to contain any detectable PHCs, and was reused on-site as backfill material. A pump was installed in one of the large diameter boreholes and 3,000-gallons of PHC impacted water was removed from the subsurface and properly disposed of. Oxygen Release Compound® (ORC) was added to the saturated zone in each borehole to promote microbial growth and enhance the ability of aerobic microbes to degrade contaminants. Each borehole was backfilled with control density fill and clean

fill soil to ground surface. This work was described in our February 8, 2002 report, *Large Diameter Excavation and 4th Quarter 2001 Quarterly Groundwater Monitoring*. The highest residual PHC concentrations in soil at the site after the source zone excavation are summarized in the table below.

Summary of Maximum Residual PHC Concentrations in Soil After Source Zone Excavation (mg/kg, ppm)

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Highest Site Soil Concentrations	34	0.041	0.014	0.12	0.62

The highest residual PHC concentrations at the site are from a single confirmation soil sample collected after the source excavation in January 2002 (sample LD#16 SW-W). The majority of the confirmation samples collected after the source excavation did not contain any detectable PHCs.

In the fourth quarter 2002 (Weber, Hayes, and Associates, March 27, 2003) we presented site-specific soil and groundwater cleanup goals based on the California Regional Water Quality Control Board, San Francisco Bay Region's publication: *Application of Risk-Base Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater* (these are denoted as RBSLs). In July 2003, the California Regional Water Quality Control Board, San Francisco Bay Region updated their publication and re-titled it: *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (these are denoted as ESLs) The changes to the site specific cleanup goals for contaminants of concern at this site are minor (**and do not affect our request for closure**):

Comparison of Site Specific Cleanup Goals/Tier 1 RBSLs/ESLs to Site Data

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Highest Site Soil Concentrations	34 mg/kg	0.041 mg/kg	0.014 mg/kg	0.12 mg/kg	0.62 mg/kg
Soil Cleanup Goal - RBSL	100 mg/kg	0.045 mg/kg	2.6 mg/kg	2.5 mg/kg	1.0 mg/kg
Soil Cleanup Goal - ESL	100 mg/kg	0.044 mg/kg	2.9 mg/kg	3.3 mg/kg	1.5 mg/kg

Comparison of the site-specific cleanup goals (both RBSLs and ESLs) for PHCs in soil with the highest residual concentrations of PHCs in soil indicate that residual concentrations of PHCs in soil were below site-specific cleanup goals and do not pose a threat to human health (see Table 1 for a summary of soil sample analytical results). There are no sensitive ecological habitats, such as surface water or wetlands, within three miles of the site, so the residual PHCs in soil do not pose a

threat to the environment, either. PHC concentrations in groundwater were also below site-specific cleanup goals and do not pose a threat to human health (see below).

In the fourth quarter 2002 we also presented a Work Plan for the Well/Conduit Search to confirm our assumption that shallow groundwater near the site is not a drinking water source and that there are no nearby abandoned wells that could serve as conduits to deeper groundwater. Environmental Health concurred with our Work Plan on April 15, 2003, and requested that the search be expanded to identify the presence of all wells within ½ mile radius of the site (i.e., monitoring and production wells; active, inactive, standby, destroyed, abandoned), provide details of their construction (where available), and an interpretation of their possible contribution to plume dispersal, should there be any. Environmental Health also requested that the Conduit Search include an evaluation of all potential preferential pathways (e.g.,utilities, storm drains, etc.).

The Well/Conduit Study was completed in the second quarter 2003, and indicated that shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater.

The groundwater samples collected in the first quarter 2003 were analyzed for Halogenated Volatile Organic Compounds (HVOCs) because trace levels of the HVOCs trichloroethylene, tetrachloroethylene and 1, 2-dichloroethane had been detected in the original site investigation. None of these compounds were detected in the groundwater samples collected in the first quarter 2003. Only 1, 1, 2-trichloroethane was detected, at a maximum concentration of 9 micrograms per liter (µg/L, parts per billion, ppb) in the samples collected in the first quarter 2003. This concentration is well below both the Risk Based Screening Level of 930 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils which we propose to use as the site-specific cleanup goal. The 9 ppb concentration is also well below the Environmental Screening Level of 350 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils. We note that soils at the site are fine grained.

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Groundwater Monitoring Report - Second Quarter 2003
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August 22, 2003

GROUNDWATER MONITORING - SECOND QUARTER 2003

The groundwater monitoring event for the second quarter 2003 took place on June 24, 2003. Field methods followed Weber, Hayes and Associates' standard field methodology for groundwater monitoring, which is described in Appendix A. Groundwater samples were collected from monitoring wells MW-3, 5, 6, 9 and 10 in accordance with directives from Environmental Health, and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method 8015M, and benzene, toluene, ethylbenzene, and xylenes (BTEX), and Methyl tert Butyl Ether (MTBE) by EPA Method 8020. Samples with elevated detection limits or detections of MTBE were analyzed by EPA Method 8260 to confirm the presence of MTBE and provide the proper detection limit.

Field data forms are also presented in Appendix A.

Free Product

Free product was not observed in any of the monitoring wells at the site. Free product has never been observed at the site.

Groundwater Elevation and Flow Direction

Groundwater elevations were calculated by subtracting the measured depth-to-groundwater from the top-of-casing elevations, which were surveyed by a state-licensed Land Surveyor. Field measurements and the calculated groundwater elevations for the site are summarized in Table 1. Groundwater elevations at the site fell an average of approximately 0.14 feet since the previous quarter (March 2002). Calculated groundwater elevations from the gauging data collected on June 24, 2003 are shown on Figure 2. Data from this quarter indicate that groundwater flow is to the west (see Figure 2). The calculated groundwater gradient on June 24, 2003 was approximately 0.002 feet per foot. Previous reports indicate that the groundwater flow direction in the vicinity of the site has generally been in a westerly direction. A table and figures summarizing depth to groundwater data collected by previous consultants are presented as Appendix B.

Groundwater Analytical Results

Groundwater samples were collected from five of the ten monitoring wells associated with the site this quarter, in accordance with directives from Environmental Health. The groundwater analytical results for this quarter are summarized below and on Figure 3.

Summary of Petroleum Hydrocabon Groundwater Sample Analytical Results, June 24, 2003
(µg/L, ppb)

Well ID	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	260	ND	ND	5.6	2.8	ND*
MW-5	3,800	100	58	310	670	< 1.5*
MW-6	1,500	< 5	< 5	35	15	< 0.6*
MW-9	2,900	25	9.1	230	270	< 1.5*
MW-10	750	< 2.5	< 2.5	< 2.5	< 5	< 1.5*
PQLs	50	0.5	0.5	0.5	1	1
Groundwater Cleanup Goal	5,000 - 50,000	1,900	530,000	52,000	160,000	NA

* = Confirmed by GC/MS method 8260, PQL = Laboratory's Practical Concentration Limit

The concentrations of benzene in wells MW-5 and 9 exceed the groundwater quality goal/drinking water MCL of 1 part per billion (ppb), but were below the site-specific groundwater cleanup goal of 1,900 ppb, which is the updated Environmental Screening Level (ESL). The concentrations of TPH-g and benzene in wells MW-5, 6, and 9 exceed the respective groundwater quality goal/drinking water Action Level (AL) / Maximum Contaminant Level (MCL), but were below their respective site-specific groundwater cleanup goals. We expect the concentrations of benzene to continue to decline, and to drop below MCLs over time, because dissolved oxygen levels at the site indicate biodegradation of organic compounds in shallow groundwater is occurring (see Dissolved Oxygen section).

No other PHCs exceed their respective groundwater quality goals/ALs or MCLs.

MTBE was not detected in any of the wells associated with the site.

Please see the Site Conceptual Model section for further discussion of the groundwater analytical results.

Analytical results for the groundwater samples collected by Weber, Hayes and Associates since the third quarter 2000 are summarized in Table 2. PHC concentrations detected in groundwater during the current monitoring event are shown on Figure 3. The extent of dissolved PHCs greater than 1,000 ppb TPH-g and 10 ppb benzene in groundwater are shown on Figure 4. A dissolved oxygen concentration contour map is presented as Figure 5. The decreasing trend in TPH-g and benzene concentrations in wells MW-5 and 9, along with groundwater elevations over time, are shown on Figures 6 and 7.

The laboratory's Certified Analytical Reports for the groundwater samples is presented as Appendix C. All laboratory quality control and quality assurance data were within acceptable limits. A table and figures summarizing analytical results of groundwater samples collected by previous consultants is presented as Appendix D (review of analytical data collected by previous consultants further illustrates the decreasing trend in dissolved PHC concentrations).

Dissolved Oxygen Measurements

Current and historic dissolved oxygen measurements collected at the site indicate generally lower levels of dissolved oxygen in PHC-impacted wells compared to levels in non-impacted, upgradient wells. The decrease in dissolved oxygen in the impacted wells is shown on the dissolved oxygen concentration contour map, Figure 5. We believe the depletion of dissolved oxygen in PHC-impacted wells, combined with the observed decrease in dissolved PHC concentrations over time (see Figures 6 and 7), indicates that natural attenuation of PHCs via biologic activity (bioremediation) is occurring in groundwater, with microbes using dissolved PHCs as a food source during aerobic respiration (Bushek and O'Reilly, 1995).

Summary of Quarterly Groundwater Monitoring Results

- Free product was not observed in any of the monitoring wells at the site.
- Groundwater elevations at the site fell an average of approximately 0.14 feet since the previous quarter (March 2002).
- The groundwater flow direction on June 24, 2003 was to the west at a gradient of approximately 0.002 feet per foot. This direction is in agreement with data collected by us and previous data collected by others at the site.
- Concentrations of dissolved PHCs generally decreased compared to last quarter.
- **MTBE was not detected in any of the groundwater samples collected this quarter.**
- TPH-g was detected at a concentration above the drinking water Action Level in on-site wells MW-5, 6, and 9. The concentrations of TPH-g were below the appropriate Risk Based/Environmental Screening Level/site-specific cleanup level.
- Benzene was detected at a concentration above the drinking water MCL in wells MW-5 and 9. The concentrations of benzene were below the appropriate Risk Based/Environmental Screening Level/site-specific cleanup level.
- No other PHCs were detected above their respective water quality goals/drinking water Action Levels/Maximum Contaminant Levels.

- Current and historic measurements of dissolved oxygen collected at the site indicate aerobic bioremediation is occurring in the PHC-impacted groundwater.

WELL/CONDUIT STUDY

A well/conduit study was implemented for the site following the approval of our *Work Plan for Conduit Study* (Weber, Hayes, and Associates, March 27, 2003) by Environmental Health in their e-mail dated April 15, 2003. Environmental Health also requested that the search be expanded to identify the presence of all wells within ½ mile radius of the site (i.e., monitoring and production wells; active, inactive, standby, destroyed, abandoned), provide details of their construction (where available), and an interpretation of their possible contribution to plume dispersal, should there be any. The results of this study were used to refine our three-dimensional Site Conceptual Model (SCM) and determine whether or not utility conduits or offsite wells would allow the spread of PHC-contaminated groundwater.

We implemented the *Work Plan* by contacting all utility companies which have underground or above ground utilities near the site, as well as contacting the Alameda County Public Works Agency (ACPWA) to obtain information on any type of well within ½-mile radius of the site.

Three utility companies (Oraloma Sewer, East Bay Mud, and Pacific Gas & Electric) as well as three departments within ACPWA (Land Development Department, Maintenance & Operations Department and Water Resources Section) were contacted to obtain the information necessary to complete our well/conduit study.

On July 19, 2003 ACPWA Water Resources Section sent us their query results on wells within ½-mile radius of our site. This data was compiled onto Table 3 according to well number (Township, Section, and Range). Included in the query, if available were; site addresses and city; well owners; drilling dates; elevations of well heads; total depth of wells; groundwater depths; well diameters; well types; and whether or not there was a drilling log associated with the well. A total of 78 wells were identified within ½ mile of our subject site by ACPWA Water Resources Section. The well use identified by ACPWA were either: domestic well; monitoring well; irrigation well (irrigation well could also be domestic well); boring; abandoned well (but not destroyed through permit); destroyed well (destroyed through permit); test well; or, unknown type of well (well use not reported).

On July 28th, 2003 Weber, Hayes and Associates staff mapped above ground and below ground utilities in the intersection of Blossom Way and Meekland Avenue. Each manhole cover was identified and mapped, as was all street lighting and overhead electrical. It should be noted that utility companies do not provide information on depth to utilities because of liability, if they were to incorrectly provide the depth. Utility installation depths depend on other utilities in the area, and

depth to groundwater, and installation depths are determined in the field on a site by site basis. In trying to determine depths of the utilities in our area, each utility manhole cover identified was opened to observe the utility lines in the subsurface and measure their respective depths. Based on our field observations, traffic lighting, and traffic signal lighting were the shallowest, less than (<) 1 foot below ground surface (bgs). Other utilities were deeper, and are listed in order of depth. PG&E natural gas lines were observed at approximately 2 feet bgs, water lines were observed at approximately 3 feet bgs, storm drain lines were observed at approximately 6 feet bgs, and sewer lines were observed at approximately 8 feet bgs.

Following field mapping and after receiving utility maps from the utility companies, a utility map was created and is presented as Figure 8. This map depicts all utilities around the site. Our field mapping operations concurred with the utility maps obtained from the utility companies. Although there are many utilities within the subsurface around the site, all of the utilities are relatively shallow as compared to the regional groundwater table. Groundwater is encountered at approximately 22 to 23 feet bgs. Based on our field inspections the deepest conduit at the site is approximately 8 feet bgs, approximately 14 feet from the groundwater table. **We do not believed that any of the utility conduits near the subject site could serve as a horizontal conduit for transporting PHC-contaminated groundwater.**

After completing the utility mapping at the site, WHA staff confirmed the location of each well identified by ACPWA within ½ mile radius of the site by driving by and looking for pump houses or electrical poles which service the pump house. Generally, the irrigation wells were located at a large residential complex (mobile home, apartments, or condominiums), while the monitoring wells were located at active or abandoned gasoline stations. Domestic wells were generally noted by observing a pump house on the property. A ½-mile well radius map showing well locations was compiled and is presented as Figure 9. Particular attention was given to those wells which were near the site, especially domestic and irrigation wells. The closest two wells (3S2W17C1; 3S2W17C2) were approximately 600 feet northwest (cross-gradient) of the site, and were listed by ACPWA to be irrigation wells. Although neither depth to groundwater nor sanitary seal depths were reported for these wells, they are not located within the limits of the sites' dissolved PHC plume and therefore are not believed to be vertical conduits for transport of PHC-impacted groundwater. We also note that well MW-11 is northwest of the site and does not contain any PHCs. The groundwater plume at the subject site is estimated to be at a maximum, 120 feet long (see Figure 4). None of the other wells are close to the subject site, and therefore **there are no wells that could serve as vertical conduits for transporting PHC-contaminated groundwater.**

Based on all field work conducted and information obtained, no utility conduits, nor any wells identified within ½-mile radius of the site appear to be conduits that could allow transport of PHC-contaminated groundwater.

SITE CONCEPTUAL MODEL

The Site Conceptual Model provides a compilation of our understanding of the existing site conditions:

- Soils encountered at the site generally consisted of fine grained materials: fat Clays and sandy Clays.

- Source zone PHC-impacted soil was removed from the site in January 2002. Approximately 594 yds^3 of PHC-impacted soil was removed from the subsurface and transported to an appropriate landfill for disposal. The maximum residual PHC concentrations in soil are **below** the appropriate Environmental Screening Levels/site-specific cleanup levels. See the Summary Table below and our March 27, 2003 *Report.*

- **MTBE has not been detected in any of the soil or groundwater samples collected at the site.**

- Dissolved PHCs are present in groundwater beneath the site, downgradient of the removed USTs, at concentrations that exceed groundwater quality goals/drinking water Action Levels and/or MCLs. The maximum residual PHC concentrations in groundwater are **below** the appropriate Environmental Screening Levels/site-specific cleanup levels. See the Summary Table below and our March 27, 2003 *Report.*

- The groundwater samples collected in the first quarter 2003 were analyzed for Halogenated Volatile Organic Compounds (HVOCs) because trace levels of HVOCs had been detected in the original site investigation. In the first quarter 2003 only 1, 1, 2-trichloroethane was detected at a maximum concentration of 9 ppb. This concentration is well **below** both the Risk Based Screening Level of 930 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils which we selected as the site-specific cleanup goal. See our July 2, 2003 *Report.* The 9 ppb concentration is also well below the Environmental Screening Level of 350 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils. We note that soils at the site are fine grained.

- Dissolved PHC concentrations show a general downward trend (see Table 2 and Figures 6 and 7).

- Shallow groundwater near the site is not a drinking water source and there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater.

- **Natural attenuation/bioremediation has and will continue to remove PHCs from groundwater at the site, as evidenced by the general downward trend in PHC concentrations.**

Comparison of Site Specific Cleanup Goals/ESLs to Site Data

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Highest Site Soil Concentrations	34 mg/kg	0.041 mg/kg	0.014 mg/kg	0.12 mg/kg	0.62 mg/kg
Soil Cleanup Goal - ESL	100 mg/kg	0.044 mg/kg	2.9 mg/kg	3.3 mg/kg	1.5 mg/kg
Highest Current Groundwater Concentration	3,800 µg/L	100 µg/L	58 µg/L	310 µg/L	670 µg/L
Groundwater Cleanup Goal - ESL	5,000 - 50,000 µg/L	1,900 µg/L	530,000 µg/L	52,000 µg/L	160,000 µg/L

RECOMMENDATIONS

At this time we recommend closing the fuel leak case at this site. Site investigations, groundwater monitoring, and comparison of site data to ESLs show that residual PHCs in soil and groundwater do not threaten human health or groundwater resources. Residual PHCs in shallow groundwater at the site will degrade to groundwater quality goals (drinking water Action Levels/Maximum Contaminant Levels), and there are no conduits for transport of residual PHCs in groundwater.

SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER

No monitoring, investigative, or cleanup activities are scheduled for the next quarter at the site.

LIMITATIONS

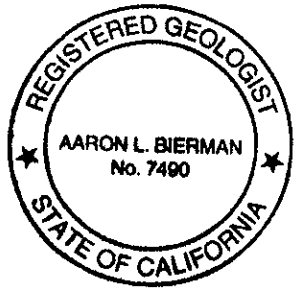
Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and proposals in this report are based on sampling and testing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

Thank you for the opportunity to aid in the assessment and cleanup of this site. If you have any questions or comments regarding this project please call us at (831) 722 - 3580.

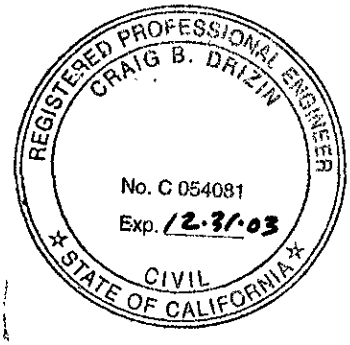
Sincerely yours,

Weber, Hayes And Associates

By:_____
Chad N. Taylor
Staff Geologist



And:_____
Aaron Bierman
Senior Staff Geologist



And:_____
Craig B. Drizin, P.E.
Senior Engineer

c: Mr. Scott Seery, Alameda County Environmental Health
Mr. Jeff Lawson
Ms. Laurie Berger
Mr. Gregg Petersen, Durham Transportation

Attachments

REFERENCES

AGI Technologies, August 29, 1994. *Quarterly Groundwater Monitoring 19984 Meekland Avenue, Hayward, California*

AGI Technologies, September 19, 1994. *Quarterly Groundwater Monitoring 19984 Meekland Avenue, Hayward, California*

AGI Technologies, February 1, 1995. *Quarterly Groundwater Monitoring 19984 Meekland Avenue, Hayward, California*

AGI Technologies, August 16, 1995. *Development of Risk-Based Cleanup Standards Harbert Transportation Site 19984 Meekland Avenue, Hayward, California*

AGI Technologies, November 9, 1995. *Work Plan Off-Site Contamination Assessment Harbert Transportation Inc. 19984 Meekland Avenue, Hayward, California*

AGI Technologies, November 29, 1995. September 1996 *Quarterly Groundwater Monitoring 19984 Meekland Avenue, Hayward, California*

AGI Technologies, April 30, 1996. *Quarterly Groundwater Monitoring 19984 Meekland Avenue, Hayward, California*

AGI Technologies, January 6, 1997. *September 1996 Quarterly Groundwater Monitoring 19984 Meekland Avenue, Hayward, California*

AGI Technologies, February 4, 1998. *Final Report Development of Risk-Based Cleanup Standards Harbert Transportation Site 19984 Meekland Avenue, Hayward, California*

Alameda County Health Care Services Agency, Environmental Health Services, June 17, 1999. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Requests for Additions/Modifications to the Risk Assessment*

Alameda County Health Care Services Agency, Environmental Health Services, July 11, 2000. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Groundwater Monitoring and Work Plan Request*

Alameda County Health Care Services Agency, Environmental Health Services, August 8, 2000. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Groundwater Monitoring and Work Plan Request - Clarification*

REFERENCES (continued)

Alameda County Health Care Services Agency, Environmental Health Services, November 1, 2000. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Approval of Work Plan for Soil and Groundwater Sampling*

Alameda County Health Care Services Agency, Environmental Health Services, November 15, 2000. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Review of Third Quarter 2000 Groundwater Monitoring Report*

Alameda County Health Care Services Agency, Environmental Health Services, December 4, 2000. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Approval of Work Plan for Soil and Groundwater Sampling*

Alameda County Health Care Services Agency, Environmental Health Services, February 21, 2001. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Concur with work proposed in Fourth Quarter 2000 Groundwater Monitoring Report*

Alameda County Health Care Services Agency, Environmental Health Services, June 26, 2001. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Concur with work proposed in First Quarter 2001 Groundwater Monitoring Report*

Alameda County Health Care Services Agency, Environmental Health Services, November 29, 2001. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Receipt of "Status Report-UST Assessment and Cleanup" dated November 6, 2001, Concur with work proposed in Second Quarter 2001 Groundwater Monitoring Report*

Alameda County Health Care Services Agency, Environmental Health Services, December 13, 2001. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Concur with work proposed in Addendum to Interim Remedial Action and Modified Feasibility Study*

Alameda County Health Care Services Agency, Environmental Health Services, January 14, 2002. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - 10% Increase in Interim Remedial Action Costs Acceptable*

Alameda County Health Care Services Agency, Environmental Health Services, January 28, 2002. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Time Extension for Submitting Excavation / Interim Remedial Action Report*

Alameda County Health Care Services Agency, Environmental Health Services, October 23, 2002. *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Concur with Recommendations to Continue Groundwater Monitoring and Calculate Active Cleanup Goals*

REFERENCES (continued)

Alameda County Health Care Services Agency, Environmental Health Services, April 15, 2003 (e-mail). *Property at 19984 Meekland Avenue, Hayward, Ca 94541 - Concur with Recommendations for Well/Conduit Study, and increase search Radius to ½ Mile*

Applied Geosystems, July 20, 1986. *Subsurface Environmental Investigation, Two Soil Borings, and Monitoring Well Installation*

Bushek, Tim, and Kirk O'Reilly, March 1995. *Protocol for Monitoring Intrinsic Bioremediation in Groundwater*, Chevron Research and Development Company, Health, Environment, and Safety Group

California Regional Water Quality Control Board, San Francisco Bay Region, December 2001. *Application of Risk-Base Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater* Interim Final

California Regional Water Quality Control Board, San Francisco Bay Region, July 2003. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*

CTTS, Inc., Toxic Technology Services, September 13, 1989. *Report on Underground Tank Removal at 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, November 27, 1990. *Phase II Report for Durham Transportation, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services. *Amendment #1, Proposed Remediation for on Site Soil Contamination*

CTTS, Inc., Toxic Technology Services, January 31, 1990. *Report on Well Abandonment and Groundwater Monitoring Well Installations, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, July 2, 1990. *Progress Report #1, Period Covering 3/23/90-6/30/90, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, August 2, 1990 *Progress Report #2, Period Covering 7/l/90-7/31/90, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, September 21, 1990. *Progress Report #3, Period Covering 8/l/90-8/31/90, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, November 12, 1990. *Progress Report #4, Period Covering 9/l/90-10/31/90, 19984 Meekland Road, Hayward, California*

REFERENCES (continued)

CTTS, Inc., Toxic Technology Services, December 28, 1990. *Progress Report #5, Period Covering 11/l/90-11/30/90, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, January 25, 1991. *Progress Report #7, Period Covering 1/l/91-1/31/91, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, February 11, 1991. *Progress Report #6, Period Covering 12/l/90-12/31/90, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, February 19, 1991. *Cost analysis, Remediation Alternatives 19984 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, April 4, 1991. *Progress Report #8, Period Covering 2/l/91-3/31/91, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, June 30, 1991. *Progress Report #11, Period Covering 6/l/91-6/30/9, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, September 30, 1991. *Progress Report #12, Period Covering 7/l/91-9/30/91, Durham Transportation 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, April 2, 1991. *Report of Additional Well Installlations19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, November 1, 1992. *Health and Safety Plan to Accompany Workplan for the Delineation, Containment and Remediation of Soil and Groundwater Contamination, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, November 1, 1992. *Workplan for the Delineation, Containment and Remediation of Soil and Groundwater Contamination, 19984 Meekland Road, Hayward, California*

CTTS, Inc., Toxic Technology Services, January 21, 1993. *Progress Report #17, Period Covering 10/l/92-12/31/92, Durham Transportation 19984 Meekland Avenue, Hayward, California*

CTTS, Inc., Toxic Technology Services, March 10, 1993. *Progress Report #18, Period Covering 12/l/92-1/31/93, Durham Transportation 19984 Meekland Avenue, Hayward, California*

CTTS, Inc., Toxic Technology Services, March 29, 1993. *Progress Report #19, Period Covering 2/l/93-2/31/93, Durham Transportation 19984 Meekland Avenue, Hayward, California*

REFERENCES (continued)

CTTS, Inc., Toxic Technology Services, April 1, 1993. *Progress Report #20, Period Covering 3/l/93-3/31/93, Durham Transportation 19984 Meekland Avenue, Hayward, California*

CTTS, Inc., Toxic Technology Services. March 10, 1993. *Remediation Progress Report 1, Period Covering 12/l/92-1/31/93, 19984 Meekland Avenue, Hayward, California*

CTTS, Inc., Toxic Technology Services. July 16, 1993. *Progress Report #21, Period Covering 4/l/93-6/30/93 19984 Meekland Avenue, Hayward, California*

CTTS, Inc., Toxic Technology Services. October 11, 1993. *Progress Report #22, Period Covering 6/l/93-9/30/93, 19984 Meekland Avenue, Hayward, California*

CTTS, Inc., Toxic Technology Services, February 24, 1993. *Progress Report #23, Period Covering 10/l/93-12/31/93, Durham Transportation 19984 Meekland Avenue, Hayward, California*

Howard, Philip, H. 1990. *Handbook of Fate and Exposure Data for Organic Chemicals*, Lewis Publishers. Inc., Chelsea, Michigan

Weber, Hayes and Associates, October 29, 1999. *Clarification of Development of Risk Based Cleanup Standards - Harbert Transportation Site, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, September 7, 2000. *Work Plan for Soil and Groundwater Sampling - Harbert Transportation Site, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, November 10, 2000. *Groundwater Monitoring Report - Third Quarter 2000, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, January 30, 2001. *Groundwater Monitoring Report - Fourth Quarter 2000, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, June 18, 2001. *Additional Site Assessment and Groundwater Monitoring Report - First Quarter 2001, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, July 24, 2001. *Groundwater Monitoring Report - Second Quarter 2001, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, November 6, 2001. *Groundwater Monitoring Report - Third Quarter 2001, 19984 Meekland Avenue, Hayward, CA*

REFERENCES (continued)

Weber, Hayes and Associates, December 7, 2001. *Addendum to Interim Remedial Action - 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, December 11, 2001. *Feasibility Study and Modified Interim Remedial Action - 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, January 14, 2002. *Facsimile with information regarding 10% Cost Overrun - Interim Remedial Action 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, February 8, 2002. *Interim Remedial Action, Large-Diameter Auger Excavation Operations, and Fourth Quarter 2001 Quarterly Groundwater Monitoring, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, May 2, 2002. *Groundwater Monitoring Report - First Quarter 2002, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, September 12, 2002. *Groundwater Monitoring Report - Second Quarter 2002, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, December 27, 2002. *Proposed Site-Specific Cleanup Goals, Groundwater Monitoring Report - Third Quarter 2002, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, March 27, 2003. *Proposed Site-Specific Cleanup Goals - Revised, Groundwater Monitoring Report - Fourth Quarter 2002, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, July 2, 2003. *Groundwater Monitoring Report - First Quarter 2003, 19984 Meekland Avenue, Hayward, CA*

Table 1: Summary of Soil Sample Analytical Results
Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, CA
Weber, Hayes and Associates Project H9042

Investigation & Date	*Sample ID*	*Sample Depth (feet,bgs)*	*TPH-g (mg/kg)*	*Benzene (mg/kg)*	*Toluene (mg/kg)*	*Ethylbenzene (mg/kg)*	*Xylenes (mg/kg)*	*MTBE (mg/kg)*
Proposed Cleanup Levels	--	--	100	0.045	2.6	2 5	1 0	NA
Interim Remedial Action Large Diameter Auger Drilling & Source Removal (January 7, 8, 9, 10, 2002)	Soil Reuse #1a,b,c,d	4-point composite (0 - 10')	ND	ND	ND	ND	ND	ND
	Soil Reuse #2a,b,c,d	4-point composite (0 - 20')	ND	ND	ND	ND	ND	ND
	Soil Reuse #3a,b,c,d	4-point composite (0 - 20')	ND	ND	ND	ND	ND	ND
	LD#1 SW-E	35'	ND	ND	ND	0 005	0.011	ND
	LD#2 SW-W	35'	ND	ND	ND	ND	ND	ND
	LD#3 BC-N	40'	ND	ND	ND	ND	ND	ND
	LD#4 SW-N	40'	1.2	ND	0 012	0 005	0 006	ND
	LD#5 SW-N	40'	ND	ND	ND	ND	ND	ND
	LD#8 SW-S	40'	ND	ND	ND	ND	ND	ND
	LD#9 SW-E	40'	ND	ND	ND	ND	ND	ND
	LD#10 SW-E	40'	ND	ND	ND	ND	ND	ND
	LD#11 SW-W	40'	ND	ND	0.014	0.013	0.062	ND
	LD#12 SW-E	18'	ND	ND	ND	ND	ND	ND
	LD#13 SW-E	18'	ND	ND	ND	ND	ND	ND
	LD#13 SW-E	40'	ND	ND	0.006	ND	0 022	ND
	LD#14 SW-W	40'	ND	ND	ND	ND	ND	ND
	LD#15 BC-S	40'	ND	ND	ND	ND	ND	ND
	LD#16 SW-W	18'	ND	ND	ND	ND	ND	ND
	LD#16 SW-W	40'	**34**	**0.041**	**ND**	**0.12**	**0.62**	**ND**
Landfill Acceptance Borings (October 18, 2001)	DP-1c,d,e,f	4-point composite (15-30')	ND	ND	ND	ND	ND	ND
	DP-2c,d,e,f	4-point composite (15-30')	130	ND	0.13	0.37	1.2	ND
Soil Sampling Additional Site Assessment (February 14, 2001)	DP-1a	2	ND	ND	0.010	ND	0 025	ND
	f	23	ND	ND	ND	ND	ND	ND
	g @ 24'	24	ND	ND	ND	ND	0.007	ND
	g@27'	27	ND	ND	ND	0.007	0.015	ND
	DP-2a	2	ND	ND	0.019	0.020	0.13	ND
	d	13 5	1,800	< 0 5	4 5	19	270	ND*
	e	18 5	8,700	18	720	230	1,600	< 0.5*
	g	24	1,800	3 5	52	39.0	250	ND*
	DP-3a	2	ND	ND	0 017	0 006	0.054	ND
	b	7 5	ND	ND	0 063	0 020	0.12	ND
	e	18 5	ND	ND	ND	ND	ND	ND
	g	27 5	18	0.036	0 067	0 070	0 060	ND*
	DP-4a	2	ND	ND	0 014	0 008	0 058	ND
	e	19.5	ND	ND	ND	ND	ND	ND
	g @ 25'	25	ND	ND	ND	ND	ND	ND
	g @ 27'	27	ND	ND	ND	ND	ND	ND
	DP-5a	2	ND	ND	ND	ND	ND	ND
	d	12	ND	ND	ND	ND	ND	ND
	f	20	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	ND	ND	ND
	DP-6a	2	ND	ND	ND	ND	ND	ND
	d	14	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	0 009	ND	ND
	DP-7a	2	ND	ND	ND	ND	ND	ND
	d	14	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	ND	ND	ND
	DP-8a	2	ND	ND	ND	ND	ND	ND
	d	13	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	ND	ND	ND
	DP-9a	2	ND	ND	ND	ND	ND	ND
	d	13	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	18	0 020	0 020	0.19	0.30	ND*
Laboratory's Practical Quantitation Limits:			1	0.005	0.005	0.005	0.005	0.05

NOTES:

Proposed Cleanup Levels: RBSLs for Surface and Subsurface Soils from *Application of Risk Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater*, SFBay RWQCB, December 2001

TPH-g : Total Petroleum Hydrocarbons as gasoline

BTEX: B Benzene, T Toluene, E Ethylbenzene, and X Total Xylenes

MTBE: Methyl-tert-Butyl Ether

bgs: below ground surface

ND: Not detected at or above the lab's practical quantitation limit

<X : Not detected at the elevated PQL, X PQL elevated due to laboratory dilution.

***:** MTBE Analysis confirmed by EPA Method 8260.

Table 2: Summary of Groundwater Elevation and PHC Analytical Data

Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca.

Weber, Hayes and Associates Project H9042

Monitoring Point Information						Laboratory Analytical Results							Field Measurements	
						Total Petroleum Hydrocarbons	Volatile Organic Compounds							
Well I.D.	TOC Elevation (feet, NGVD)	Screen Interval (feet, bgs)	Date Sampled	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, NGVD)	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Fuel Oxygenates (ug/L)	Dissolved Oxygen (mg/L)	Redox Potential (ORP) (mV)
MW-3	55.44	20 - 40?												
			06/24/03	22 53	32.91	260	ND	ND	5.6	2.8	ND*	–	0.18	-2
			03/21/03	22.41	33 03	460	3 3	1.4	5.6	< 2 5	ND*	–	0.15	-34
			12/30/02	21.32	34 12	70	ND	ND	2.1	< 1	ND*	–	0.14	536
			08/27/02	23.87	31 57	350	0.56	1.1	14	3.4	ND	–	0 13	216
			06/13/02	22.92	32.52	300	1.1	1.4	4	1.8	ND	–	0.14	194
			03/21/02	21 96	33.48	240	0.94	2.5	12	11.7	ND	–	0.1	–
			12/18/01	23.59	31.85	270	1 6	1.7	13	5.4	ND	–	–	–
			09/20/01	24.16	31.28	380	1.7	2 6	32	8.9	ND	–	0 4	–
			06/20/01	23.55	31 89	760	4.4	2.4	62	23	ND*	–	–	–
			03/29/01	22 02	33.42	170	1.1	ND	10	1.6	ND	–	0.6	–
			01/12/01	23 41	32.03	310	2.4	2.2	4.4	10	ND	–	0.7	–
			09/27/00	23.09	32.35	430	ND	ND	44	ND	ND	ND	1	–
MW-4	55.71	20 - 40?												
			06/24/03	22.74	32 97	–	–	–	–	–	–	–	1.01	22
			03/21/03	22 49	33.22	–	–	–	–	–	–	–	1.03	18
			12/30/02	21.50	34.21	ND	ND	ND	ND	< 1	ND	–	0.41	368
			08/27/02	24.07	31 64	–	–	–	–	–	–	–	0.21	187
			06/13/02	23.15	32 56	ND	ND	ND	ND	ND	ND	–	0 20	392
			03/21/02	22.15	33.56	ND	ND	ND	ND	ND	ND	–	0.2	–
			12/18/01	23 80	31.91	ND	ND	0.9	ND	ND	ND	–	–	–
			09/20/01	24.32	31.39	ND	ND	ND	ND	ND	ND	–	0 4	–
			06/20/01	23.74	31.97	ND	ND	ND	ND	ND	ND	–	–	–
			03/29/01	22.22	33 49	ND	ND	4.2	ND	ND	ND	–	0.5	–
			01/12/01	23.60	32.11	ND	ND	ND	ND	ND	ND	–	0.7	–
			09/27/00	23.25	32 46	ND	ND	ND	ND	ND	ND	ND	2.5	–
MW-5	56 03	25 - 45												
			06/24/03	23 08	32.95	3,800	100	58	310	670	< 1 5*	–	0 05	-67
			03/21/03	22.99	33.04	4,600	190	82	370	700	< 5*	–	0.07	-72
			12/30/02	21.88	34 15	130	5.8	1.0	9.9	5 9	ND*	–	0.14	251
			08/27/02	24 42	31.61	1,900	170	14	210	93	ND*	–	0.43	207
			06/13/02	23 57	32.46	1,500	24	16	120	110	ND*	–	0.06	144
			03/21/02	24 69	31.34	360	11	9 4	28	62	ND	–	0.1	–
			12/18/01	23.15	32.88	780	21	12	86	94	ND*	–	–	–
			09/20/01	24.75	31 28	2,300	46	41	280	330	ND*	–	0.3	–
			06/20/01	24 15	31.88	6,500	120	130	740	940	ND*	–	–	–
			03/29/01	22.69	33 34	13,000	220	510	1000	2700	ND*	–	0 4	–
			01/12/01	23.97	32.06	1,100	62	40	150	290	ND*	–	0 3	–
			09/27/00	23.69	32.34	18,000	840	2 9	1200	3500	< 30	ND	0 4	–
MW-6	56.01	25 - 45												
			06/24/03	23.06	32.95	1,500	< 5	< 5	35	15	< 0.6*	–	0.09	-23
			03/21/03	22 96	33.05	1,200	6.3	< 5	54	< 10	ND*	–	0.09	-45
			12/30/02	21.91	34 10	670	2 5	< 1 25	29	2.7	ND*	–	0.15	321
			08/27/02	24.44	31.57	1,300	< 2.5	7 2	210	55	ND*	–	0.14	231
			06/13/02	23.53	32.48	1,600	<1.25	4 7	67	5.3	< 1.5*	–	0.53	233
			03/21/02	23.11	32.90	750	0.77	1 2	39	3.2	ND*	–	0.1	–
			12/18/01	24.16	31 85	3,700	33	8.7	320	110	< 1.5*	–	–	–
			09/20/01	24 72	31.29	2,500	11	8.6	240	94	ND*	–	0.3	–
			06/20/01	24.13	31.88	1,800	14	4 6	160	79	ND*	–	–	–
			03/29/01	22.56	33.45	610	2.2	ND	37	4.6	ND*	–	0 5	–
			01/12/01	23.97	32.04	2,300	16	3 5	290	83	ND*	–	0.5	–
			09/27/00	23.56	32.45	1,300	ND	4.3	200	17	ND	ND	0.5	–

Table 2: Summary of Groundwater Elevation and PHC Analytical Data

Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca.

Weber, Hayes and Associates Project H9042

Monitoring Point Information						Laboratory Analytical Results							Field Measurements	
						Total Petroleum Hydrocarbons	Volatile Organic Compounds							
Well I.D.	TOC Elevation (feet, NGVD)	Screen Interval (feet, bgs)	Date Sampled	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, NGVD)	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Fuel Oxygenates (ug/L)	Dissolved Oxygen (mg/L)	Redox Potential (ORP) (mV)
MW-7	56.66	25 - 45												
			06/24/03	23.62	33.04	–	–	–	–	–	–	–	0.58	32
			03/21/03	23.50	33.16	–	–	–	–	–	–	–	0.51	20
			12/30/02	22.34	34.32	ND	ND	ND	ND	< 1	ND*	–	0.17	370
			08/27/02	24.98	31.68	–	–	–	–	–	–	–	0.22	369
			06/13/02	24.07	32.59	ND	ND	ND	ND	ND	ND	–	0.20	370
			03/21/02	23.05	33.61	ND	ND	ND	ND	ND	ND	–	0	–
			12/18/01	24.70	31.96	290	ND	ND	119	4.6	ND	–	–	–
			09/20/01	25.27	31.39	290	0.98	ND	12	4.5	ND*	–	0.4	–
			06/20/01	24.68	31.98	430	2.4	0.96	30	9.7	ND*	–	–	–
			03/29/01	23.10	33.56	ND	ND	ND	ND	ND	ND	–	0.5	–
			01/12/01	24.49	32.17	1,600	13	0.86	150	35	ND*	–	0.5	–
			09/27/00	24.18	32.48	270	13	6.6	11	ND	ND	ND	0.5	–
MW-8	56.16	20 - 40												
			06/24/03	23.03	33.13	–	–	–	–	–	–	–	1.71	12
			03/21/03	22.91	33.25	–	–	–	–	–	–	–	1.62	15
			12/30/02	21.79	34.37	ND	ND	ND	ND	< 1	ND*	–	1.36	365
			08/27/02	24.43	31.73	–	–	–	–	–	–	–	1.98	402
			06/13/02	23.54	32.62	ND	ND	ND	ND	ND	ND	–	1.96	394
			03/21/02	22.51	33.65	ND	ND	ND	ND	ND	ND	–	2.4	–
			12/18/01	24.16	32.00	ND	ND	ND	ND	ND	ND	–	–	–
			09/20/01	24.68	31.48	ND	ND	ND	ND	ND	ND	–	1.6	–
			06/20/01	24.09	32.07	ND	ND	ND	ND	ND	ND	–	–	–
			03/29/01	22.56	33.60	ND	ND	0.8	ND	ND	ND	–	1.9	–
			01/12/01	23.93	32.23	ND	ND	ND	ND	ND	ND	–	2.1	–
			09/27/00	23.59	32.57	ND	ND	ND	ND	ND	ND	ND	1.9	–
MW-9	55.21	20 - 40												
			06/24/03	22.30	32.91	2,900	25	9.1	230	270	< 1.5*	–	0.08	-66
			03/21/03	22.17	33.04	5,900	190	24	470	630	< 5*	–	0.10	-84
			12/30/02	21.09	34.12	2,800	140	25	200	370	ND*	–	0.15	276
			08/27/02	23.69	31.52	310	27	2.5	20	20	ND*	–	0.18	154
			06/13/02	22.76	32.45	5,100	140	21	490	300	< 1.5*	–	0.14	135
			03/21/02	21.76	33.45	510	26	4.6	50	52	ND	–	0.1	–
			12/18/01	23.38	31.83	6,400	640	120	630	1300	< 1.5*	–	–	–
			09/20/01	23.94	31.27	3,400	270	38	390	430	ND*	–	0.3	–
			06/20/01	23.36	31.85	8,300	330	88	850	1700	< 0.6*	–	–	–
			03/29/01	21.61	33.60	1,600	110	14	240	150	ND*	–	0.4	–
			01/12/01	23.17	32.04	10,000	550	110	1200	2200	ND*	–	0.5	–
			09/27/00	22.90	32.31	1,000	40	6.7	110	55	ND	ND	0.5	–
MW-10	54.74	25 - 40												
			06/24/03	22.21	32.53	750	< 2.5	< 2.5	< 2.5	< 5	< 1.5*	–	0.09	-22
			03/21/03	22.00	32.74	700	3.4	1.4	0.71	1	ND*	–	0.06	-62
			12/30/02	20.78	33.96	1,200	5.6	< 5	< 5	< 10	ND*	–	0.18	267
			08/27/02	23.46	31.28	1,800	< 2.5	15	3.9	5	ND*	–	0.14	183
			06/13/02	22.56	32.18	1,700	0.77	6.2	3.3	2.9	< 0.3*	–	0.28	201
			03/21/02	21.53	33.21	1,500	ND	11	3.1	ND	ND*	–	0.1	–
			12/18/01	21.11	33.63	1,500	7.9	2.9	ND	ND	< 0.6*	–	–	–
			09/20/01	23.70	31.04	1,200	6	9.9	1.2	3.9	ND*	–	0.4	–
			06/20/01	23.17	31.57	810****	3	1.6	5.1	13	ND*	–	–	–
			03/29/01	21.63	33.11	600****	2	0.65	ND	0.72	ND	–	0.5	–
			01/12/01	22.99	31.75	530	3.7	1.9	2.1	4.5	ND	–	0.6	–
			09/27/00	22.72	32.02	880	ND	ND	ND	ND	ND	ND	0.4	–

Table 2: Summary of Groundwater Elevation and PHC Analytical Data

Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca.

Weber, Hayes and Associates Project H9042

Monitoring Point Information						Laboratory Analytical Results							Field Measurements	
						Total Petroleum Hydrocarbons	Volatile Organic Compounds							
Well I.D.	TOC Elevation (feet, NGVD)	Screen Interval (feet, bgs)	Date Sampled	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, NGVD)	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Fuel Oxygenates (ug/L)	Dissolved Oxygen (mg/L)	Redox Potential (ORP) (mV)
MW-11	55.20	25 - 40												
			06/24/03	22.37	32.83	–	–	–	–	–	–	–	0.43	21
			03/21/03	22.24	32.96	–	–	–	–	–	–	–	0.32	24
			12/30/02	21.11	34.09	ND	ND	ND	ND	< 1	ND	–	0.16	374
			08/27/02	23.68	31.52	–	–	–	–	–	–	–	0.13	369
			06/13/02	22.78	32.42	ND	ND	ND	ND	ND	ND	–	0.15	380
			03/21/02	21.76	33.44	ND	ND	ND	ND	ND	ND	–	0.1	–
			12/18/01	23.39	31.81	ND	ND	0.56	ND	ND	ND	–	–	–
			09/20/01	23.87	31.33	ND	ND	ND	ND	ND	ND	–	0.4	–
			06/20/01	23.39	31.81	ND	ND	ND	ND	ND	ND	–	–	–
			03/29/01	21.84	33.36	ND	ND	4.5	ND	ND	ND	–	0.6	–
			01/12/01	23.21	31.99	ND	ND	2.1	ND	ND	ND	–	0.6	–
			09/27/00	22.43	32.77	63	ND	ND	ND	ND	ND	ND	0.6	–
MW-12	56.49	25 - 40												
			06/24/03	23.41	33.08	–	–	–	–	–	–	–	1.25	29
			03/21/03	23.28	33.21	–	–	–	–	–	–	–	1.23	22
			12/30/02	22.16	34.33	ND	ND	ND	ND	< 1	ND	–	0.77	372
			08/27/02	24.68	31.81	–	–	–	–	–	–	–	0.60	410
			06/13/02	23.86	32.63	ND	ND	ND	ND	ND	ND	–	0.51	400
			03/21/02	22.86	33.63	ND	ND	ND	ND	ND	ND	–	0.7	–
			12/18/01	24.49	32.00	ND	ND	0.86	ND	ND	ND	–	–	–
			09/20/01	24.95	31.54	ND	ND	ND	ND	ND	ND	–	0.7	–
			06/20/01	24.47	32.02	ND	ND	ND	ND	ND	ND	–	–	–
			03/29/01	22.91	33.58	ND	ND	5	ND	ND	ND	–	1	–
			01/12/01	24.28	32.21	ND	ND	1.1	ND	ND	ND	–	1	–
			09/27/00	23.98	32.51	ND	ND	ND	ND	ND	ND	ND	1.2	–
Practical Quantitation Limit:						*50*	*0.5*	*0.5*	*0.5*	*0.5*	*1*	*0.5*	–	–
Site-Specific Cleanup Goals						*5,000 - 50,000*	*1,900*	*530,000*	*52,000*	*160,000*	*NA*	*NA*	–	–

NOTES:

T.O.C. = Top of Casing Elevation Calculated groundwater elevation = TOC - Depth to Groundwater. Referenced to NGVD

TPH-g = Total Petroleum Hydrocarbons as gasoline. MTBE = Methy - tert - Butyl Ether

F.O.'s = Fuel Oxygenates = Di-isopropyl ether (DIPE), tertiary Butyl Alcohol (TBA), Ethyl tertiary Butyl Ether (ETBE), tertiary amyl Methyl Ether (TAME)

VOC's = Volatile Organic Compounds. D.O. = Dissolved Oxygen

ug/L = micrograms per liter, parts per billion, mg/L = milligrams per liter, parts per million

ND = Not Detected at the Practical Quantitation Limit (PQL); <X = Not Detected at the elevated PQL, X PQL elevated because of sample dilution.

– = Data not collected or measured, or analysis not conducted

MCL = Maximum Contaminant Level for drinking water in California (Department of Health Services).

** Confirmed by GC/MS method 8260*

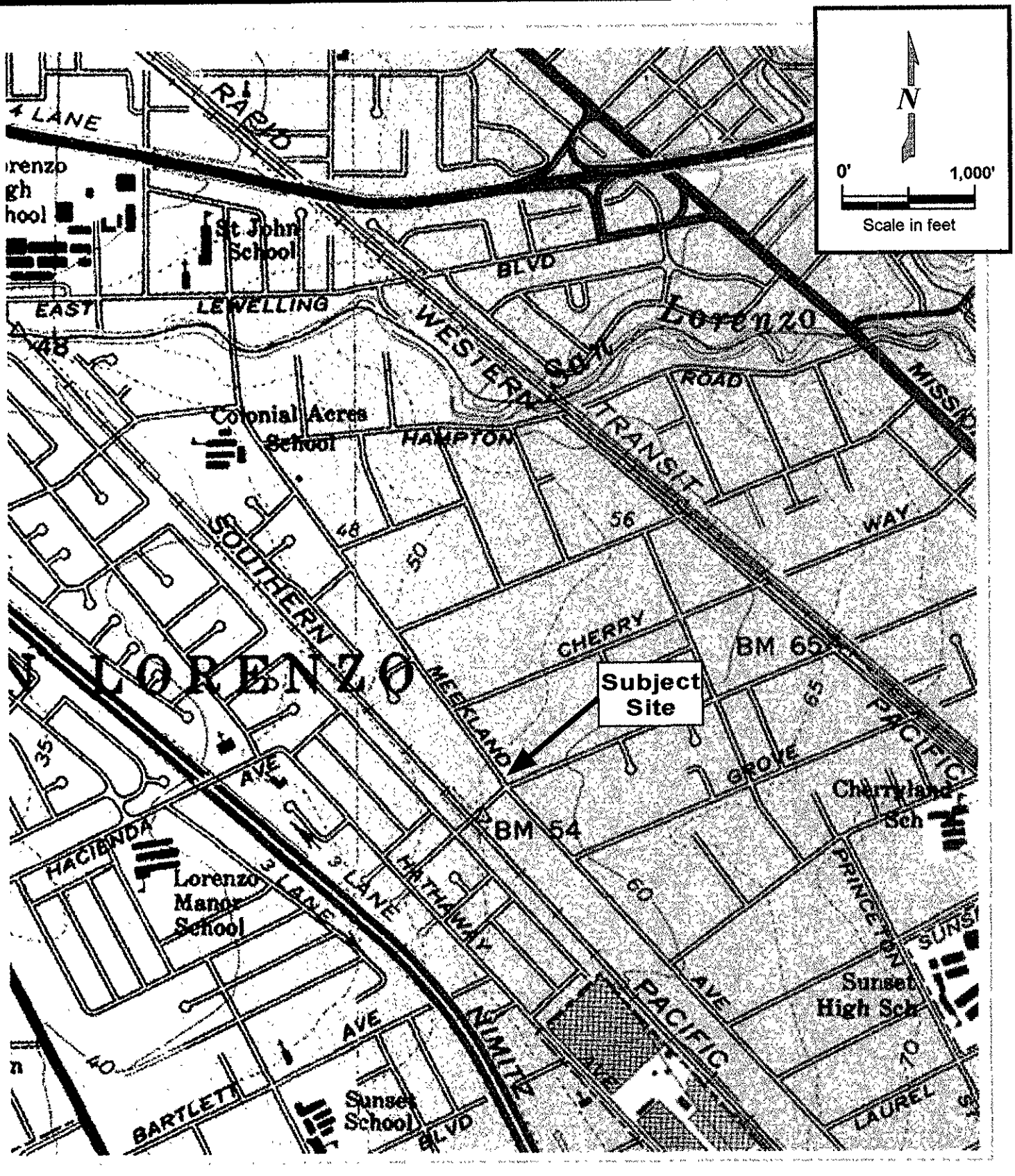
*** = Action Level *** = Secondary MCL / water quality goal*

***** = Laboratory Report indicates results within quantitation range, chromatographic pattern not typical of fuel*

TABLE 3
1/2-Mile Radius Well Search
19984 Meekland Avenue
Hayward, California

Township	Section	Address	City	Owner	Updated	Drill Date	Elevation	Total Depth	Waterdepth	Diameter	Use	Log
3S/2W	8K 1	654 HAMPTON RD	San Leandro	G FREITAS	8/3/1984	/55	60	60	0	6	IRR	?
3S/2W	8L 1	451 HAMPTON RD	San Leandro	GREENFIELD	8/3/1984	?	0	75	25	8	IRR	?
3S/2W	8L 2	18381 HAVEN ST	San Leandro	KINSEY	8/3/1984	/50	60	50	0	0	IRR	?
3S/2W	8L 3	988 LEWELLING BLVD	San Leandro	KNAPP'S NURSERY	8/3/1984	/42	57	211	0	10	IRR+	?
3S/2W	8M	17771 Meekland Ave	Hayward	Jocson Auto Electric	7/27/1993	6/92	0	22	18	0	BOR	G
3S/2W	8M 1	477 E LEWELLING BLVD	San Leandro	SCHRAGL	8/3/1984	/41	42	70	0	10	IRR	?
3S/2W	8M 2	16980 HARVARD AVE	San Leandro	SHIMAMURA	8/3/1984	?	50	58	0	8	IRR	?
3S/2W	8M 3	17662 MEEKLAND AV	Hayward	BURTON BUSK	12/12/1984	/68	48	85	22	8	DOM+	D
3S/2W	8M 4	29517 SHASTA RD	Hayward	CHARLES A. TAYLOR	8/3/1984	5/56	0	40	6	6	DOM	D
3S/2W	8M 5	171 Hampton Road	Hayward	Cherryland Homes	7/3/1990	Oct-89	0	40	0	0	DES	D
3S/2W	8M 6	171 Hampton Road	Hayward	Cherryland Homes	7/3/1990	Oct-89	0	0	0	0	DES	D
3S/2W	8M 7	17771 Meekland Ave	Hayward	Jocson Auto Electric MW-1	7/27/1993	6/92	0	31	20	2	MON	G
3S/2W	8M 8	17771 Meekland Ave	Hayward	Jocson Auto Electric MW-2	7/27/1993	6/92	0	31	18	2	MON	G
3S/2W	8M 9	17771 Meekland Ave	Hayward	Jocson Auto Electric MW-3	7/27/1993	6/92	0	31	22	2	MON	G
3S/2W	8N 1	18288 MEEKLAND AVE	Hayward	BITTNER	8/3/1984	/40	47	85	0	0	IRR	?
3S/2W	8N 2	17754 MEEKLAND AVE	Hayward	HOFFMAN	8/3/1984	/45	48	156	0	8	DES	?
3S/2W	8P 1	19231 LOWELL AVE	Hayward	VANDERBURG	8/3/1984	/55	56	50	0	0	IRR	?
3S/2W	8P 2	203 MEDFORD AVE	Hayward	R.A PACE	8/3/1984	/36	56	64	0	0	IRR	?
3S/2W	8P 3	219 MEDFORD AVE	Hayward	NANCY SMITH	8/3/1984	1/78	0	80	26	6	IRR	D
3S/2W	8Q 1	546 CHERRY WAY	Hayward	ART CROWE	8/3/1984	1/43	58	86	24	10	IRR	D
3S/2W	8Q 2	19751 WESTERN BLVD	Hayward	DEXTER'S HATCHERY	8/3/1984	9/42	57	88	0	8	IRR	D
3S/2W	8Q 3	361 SAINT GEORGE AVE	Hayward	R.J. CHASTAIN	8/3/1984	6/77	0	50	0	0	?	?
3S/2W	8Q 4	326 CHERRY WAY	Hayward	WILLIAM MATHEWS	8/3/1984	6/79	0	83	25	6	IRR	D
3S/2W	8Q 5	310 CHERRY WAY	Hayward	WILLIE DEDEK	8/3/1984	4/80	0	81	23	6	IRR	D
3S/2W	8Q 6	268 CHERRY WAY	Hayward	GUENTER MAHLER	4/1/1987	Mar-81	0	83	27	6	IRR	D
3S/2W	8R 1	839 CHERRY WAY	Hayward	HEITMAN	8/3/1984	/24	68	100	0	0	IRR	?
3S/2W	8R 2	823 BLOSSOM WAY	Hayward	BURROWES	12/18/1984	/08	69	90	0	6	IRR	?
3S/2W	8R 3	859 MEDFORD RD	Hayward	O HIGGINS	8/3/1984	/39	68	65	0	10	IRR	?
3S/2W	8R 5	21070 WESTERN BLVD	Hayward	M VIERRA	8/3/1984	?	64	85	0	12	DOM+	?
3S/2W	8R 6	559 CHERRY WAY	Hayward	MANUEL GONSALVES	8/3/1984	4/77	0	64	31	5	IRR	D
3S/2W	8R 8	850 CHERRY WAY	Hayward	LELAND DE QUADROS	8/3/1984	Oct-77	0	100	41	6	IRR	D
3S/2W	8R 9	21065 WESTERN	Hayward	RON BAXTER	8/3/1984	Oct-78	0	100	33	0	IRR	D
3S/2W	8R10	21031 Western Blvd	Hayward	William and Kathy Florenc	3/12/1998	Dec-95	0	35	25	2	MON	D
3S/2W	8R11	21031 Western Blvd	Hayward	William and Kathy Florenc	3/12/1998	Dec-95	0	35	25	2	MON	D
3S/2W	8R12	21031 Western Blvd	Hayward	William and Kathy Florenc	3/12/1998	Dec-95	0	35	25	2	MON	D
3S/2W	17A 1	448 GROVE WAY	Hayward	NEVES	8/3/1984	/28	68	108	0	0	IRR	?
3S/2W	17A 2	854 BLOSSOM WAY	Hayward	SOUSA	8/3/1984	/28	67	76	0	0	IRR	?
3S/2W	17A 3	21671 HAVILAND AVE	Hayward	DAVID PEARSON	8/3/1984	5/77	0	72	40	5	IRR	D
3S/2W	17B 1	204 GROVE WAY	Hayward	COATES	12/19/1984	/48	62	88	0	8	IRR	?
3S/2W	17B 2	294 GROVE WY	Hayward	WILDE	7/30/1984	/33	61	100	0	0	IRR	?
3S/2W	17C	19984 Meekland Ave.	Hayward	Durham Transportation	3/14/1991	8/90	55	45	30	4	MON	G
3S/2W	17C	19984 MEEKLAND AVE	Hayward	HARBERT TRANSPORTATION	10/3/1986	Jun-86	0	23	0	0	BOR	G
3S/2W	17C 1	162 CHERRY LN [1]	Hayward	DEASON	7/30/1984	/40	53	72	0	6	IRR	?
3S/2W	17C 2	19126 MEEKLAND AV	Hayward	HARTWELL	1/29/1985	/31	52	91	0	8	IRR	?
3S/2W	17C 3	163 CHERRY WAY	Hayward	FRED DEADMAN	8/3/1984	5/77	0	56	28	6	IRR	D
3S/2W	17C 4	21005 MEEKLAND AVE	Hayward	ABREV EGG CO	8/3/1984	7/77	0	77	37	6	IRR	D
3S/2W	17C 5	19984 MEEKLAND AVE	Hayward	HARBERT TRANSPORTATION	10/3/1986	Jun-86	0	42	24	2	MON	G
3S/2W	17C 5	19984 Meekland Ave	Hayward	Durham Transp MW1	7/21/1993	Dec-92	0	42	24	2	ABN	E
3S/2W	17C 6	19984 Meekland Road	Hayward	Durham Transportation	6/7/1990	Nov-89	0	68	0	4	ABN	?
3S/2W	17C 7	19984 Meekland Road	Hayward	Durham Transportation	6/7/1990	Nov-89	54	40	28	2	MON	?
3S/2W	17C 8	19984 Meekland Road	Hayward	Durham Transportation	6/7/1990	Nov-89	55	40	28	2	MON	?
3S/2W	17C 9	19984 Meekland Ave	Hayward	Durham Transportation	3/14/1991	4/90	0	65	0	0	BOR	G
3S/2W	17C10	19984 Meekland Ave.	Hayward	Durham Transportation	3/14/1991	Oct-90	55	45	31	4	MON	G
3S/2W	17C11	19984 Meekland Ave	Hayward	Durham Transportation	3/14/1991	8/90	55	45	30	4	MON	G
3S/2W	17C11	19984 Meekland Ave	Hayward	Durham Transportation	8/2/1991	2/91	14	14	9	2	MON	G
3S/2W	17C12	19984 Meekland Ave	Hayward	Durham Transportation	8/2/1991	2/91	14	0	9	0	MON	G
3S/2W	17C13	19984 Meekland Ave	Hayward	Durham TransportationMW10	9/23/1992	1/92	0	40	30	4	MON	G
3S/2W	17C14	19984 Meekland Ave	Hayward	Durham TransportationMW11	9/23/1992	1/92	0	40	30	2	MON	G
3S/2W	17C15	19515 Meekland Ave	Hayward	Jon Otteson	6/17/1993	7/91	0	27	0	2	DES	E
3S/2W	17C16	19984 Meekland Ave	Hayward	Durham Trans. MW12	7/15/1993	Dec-92	0	40	32	2	MON	G
3S/2W	17D 1	24 VIA HERMOSA	Hayward	GHIGLIONE	7/30/1984	/53	45	50	0	10	IRR	?
3S/2W	17D 2	19288 MEDFORD CT	Hayward	LEDBETTER	7/30/1984	/55	52	45	0	6	IRR	?
3S/2W	17D 3	No address [2]	Hayward	R.P KING	8/3/1984	Oct-47	46	180	0	12	IRR	D
3S/2W	17D 4	No address [2]	San Lorenzo	R P KING	8/3/1984	5/30	0	273	0	0	?	D
3S/2W	17E 1	1330 SOLANO ST	San Lorenzo	DONALD H RUDE	8/3/1984	4/53	0	61	18	0	DOM	D
3S/2W	17E 2	1338 SOLANO ST	San Leandro	ALEX FARKAS	8/3/1984	4/53	40	61	11	4	DOM	D
3S/2W	17E 3	No address [2]	Hayward	TOM CAWATA	8/3/1984	4/48	0	104	0	0	?	D
3S/2W	17F 1	20161 TIMES AV	Hayward	URBANSKI	7/30/1984	/52	54	55	0	8	IRR	?
3S/2W	17F 2	20987 MEEKLAND AV	Hayward	SHIMAMURA	7/30/1984	/52	58	75	0	8	IRR	?
3S/2W	17F 3	20165 HATHAWAY	Hayward	PERKINS	7/30/1984	6/31	55	200	0	0	IRR	D
3S/2W	17F 4	310 Bartlett	Hayward	Anderson Lift Truck MW1	9/23/1992	4/92	52	37	23	2	MON	G
3S/2W	17F 5	310 Bartlett Ave	Hayward	Anderson Lift Truck MW-2	9/23/1992	4/92	52	38	22	2	MON	G
3S/2W	17F 6	310 Bartlett Ave	Hayward	Anderson Lift Truck MW-3	9/23/1992	4/92	52	38	22	2	MON	G
3S/2W	17G	21123 Meekland Blvd	Hayward	Beck Roofing B-1	9/30/1992	Oct-91	0	26	0	0	BOR*	G
3S/2W	17G	21560 MEEKLAND AVE	Hayward	JACA CONSTRUCTION	12/14/1988	Jun-88	0	25	0	0	DES	D
3S/2W	17G 2	21568 MEEKLAND AV	Hayward	FUENTES	7/30/1984	5/34	60	92	0	8	IRR	D
3S/2W	17G 3	21455 MEEKLAND	Hayward	JOHN DE NOBRIGA	8/3/1984	Oct-77	0	80	37	6	IRR	D
3S/2W	17G 4	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	Oct-91	0	39	32	2	MON	D
3S/2W	17G 5	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	Oct-91	0	38	32	2	MON	D
3S/2W	17G 8	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	Oct-91	0	38	32	2	MON	D
3S/2W	17G 7	21123 Meekland Ave	Hayward	Beck Roofing MW-1	10/3/1992	Oct-91	0	46	31	2	MON	G
3S/2W	17G 8	21123 Meekland Ave	Hayward	Beck Roofing MW-2	10/3/1992	Oct-91	0	38	33	2	MON	G
3S/2W	17G 9	21123 Meekland Ave	Hayward	Beck Roofing MW-3	10/3/1992	Oct-91	0	38	33	2	MON	G
3S/2W	17G10	21454 Meekland Ave	Hayward	Jon Otteson	6/17/1993	8/91	0	36	0	2	DES	E
3S/2W	17G11	21123 Meekland Ave	Hayward	Beck Roofing MW-4	4/17/1995	7/94	0	40	28	2	MON	D
3S/2W	17H 1	308 SUNSET BLVD	Hayward	CRITES	7/30/1984	/56	71	75	0	6	IRR	?
3S/2W	17H 2	447 WILLOW AV	Hayward	KANE	7/30/1984	/52	72	62	0	8	IRR	?
3S/2W	17H 3	815 POPLAR ST	Hayward	J.F. TAWNEY	12/19/1984	?	75	100	0	8	STO	?
3S/2W	17H 4	231 SUNSET	Hayward	E BILLENGER	8/3/1984	9/54	0	83	0	6	DOM	D
3S/2W	17H 5	22008 Meekland Ave	Hayward	Kid Cedar MW-1	9/18/1992	7/91	0	49	36	2	MON	D
3S/2W	17H 6	22008 Meekland	Hayward	Kid Cedar MW2	9/18/1992	7/91	0	49	36	2	MON	D
3S/2W	17H 7	22008 Meekland	Hayward	Kid Cedar MW-3	9/18/1992	7/91	0	49	36	2	MON	D
3S/2W	17K2	W A ST & HATHAWAY ST	Hayward	HUNT FOOD PRODUCTS INC.	8/3/1984	7/65	0	680	0	0	TES	D
3S/2W	17L 1	21335 HATHAWAY AV	Hayward	BRANELLA	7/30/1984	/51	55	70	0	8	IRR	?
3S/2W	17L 2	442 SUNSET BLVD	Hayward	SILVERA	7/30/1984	/51	52	80	0	8	DOM	?
3S/2W	17M	21134 ROYAL AVE.	Hayward	STAN FELSON	2/2/1988	6/82	0	65	0	8	DES	D
3S/2W	17M 1	421 BARTLETT ST	Hayward	LEYMURA	8/8/1984	/48	46	60	0	8	DOM	?
3S/2W	17M 2	20555 GARDEN AV	Hayward	FERNANDES	8/8/1984	/53	49	72	30	6	IRR	D

NOTES.
[1] Cherry Lane is not a listed road in Hayward. WHA assumed well listed as being on Cherry Lane should be on Cherry Way
[2] Wells could not be located due to insufficient information.



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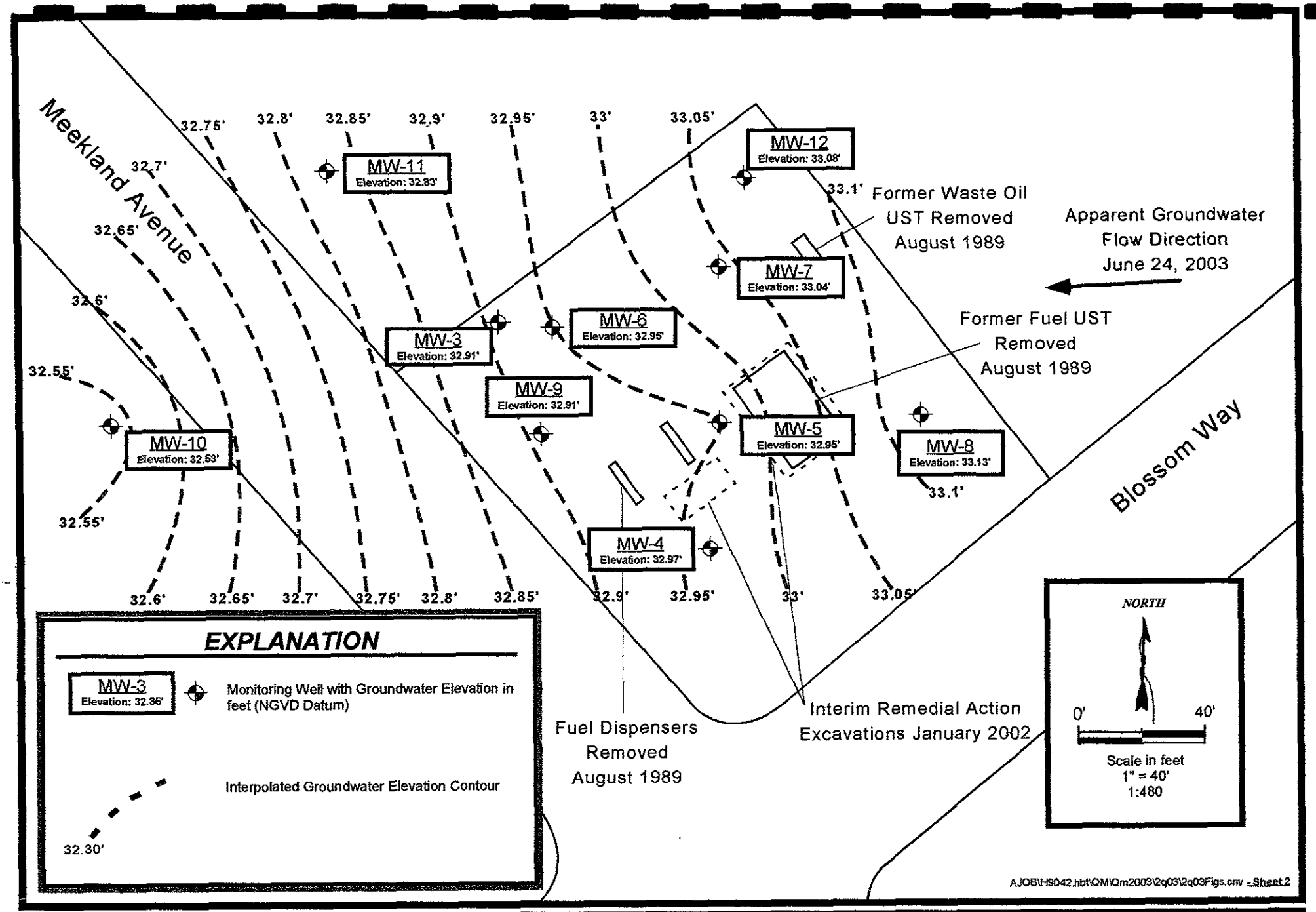
Location Map
Former Harbert Transportation Facility
19984 Meekland Avenue
Hayward, California

Figure 1
Job # H9042



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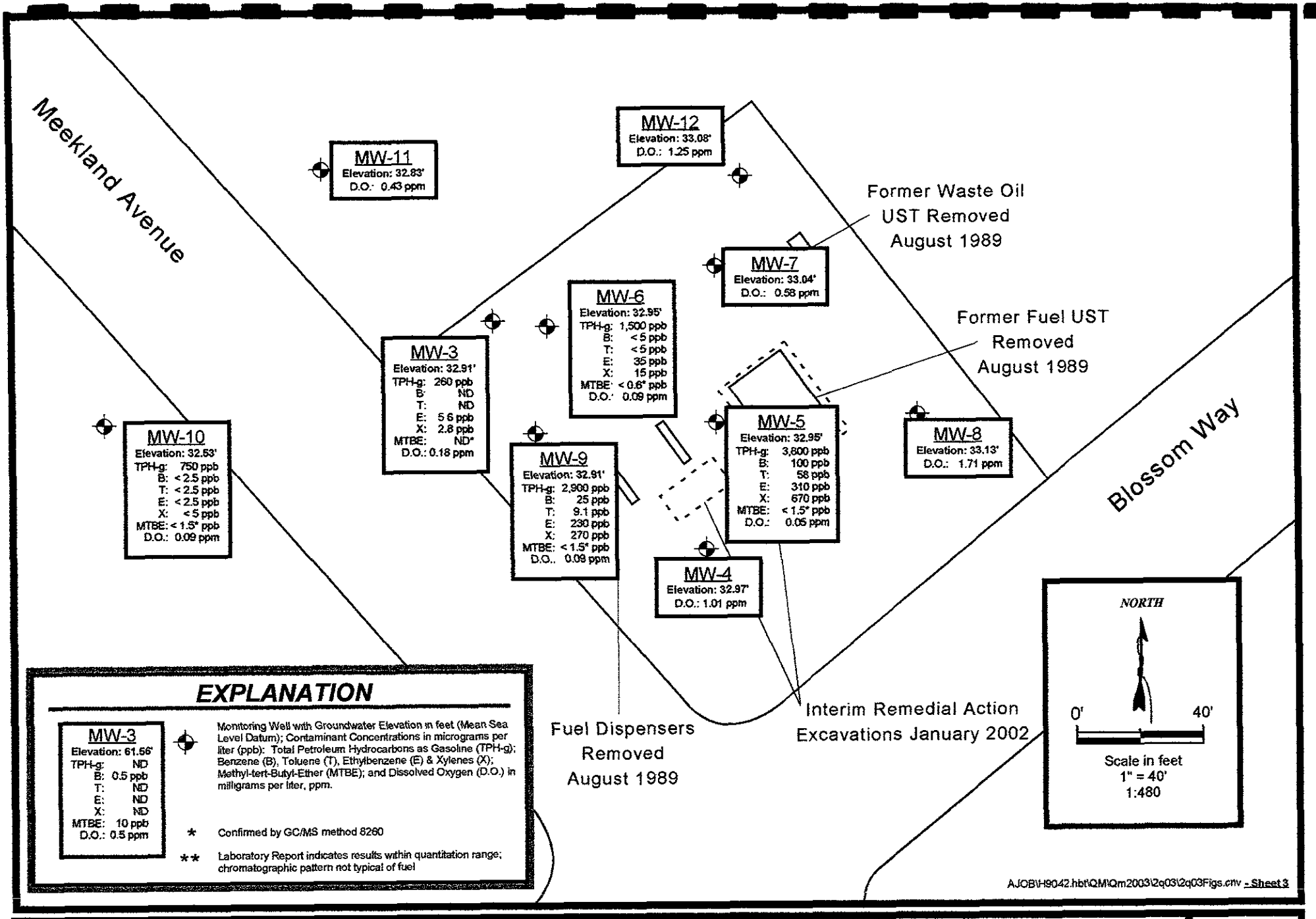
Site Plan with Groundwater Elevations
June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 2
Project H9042



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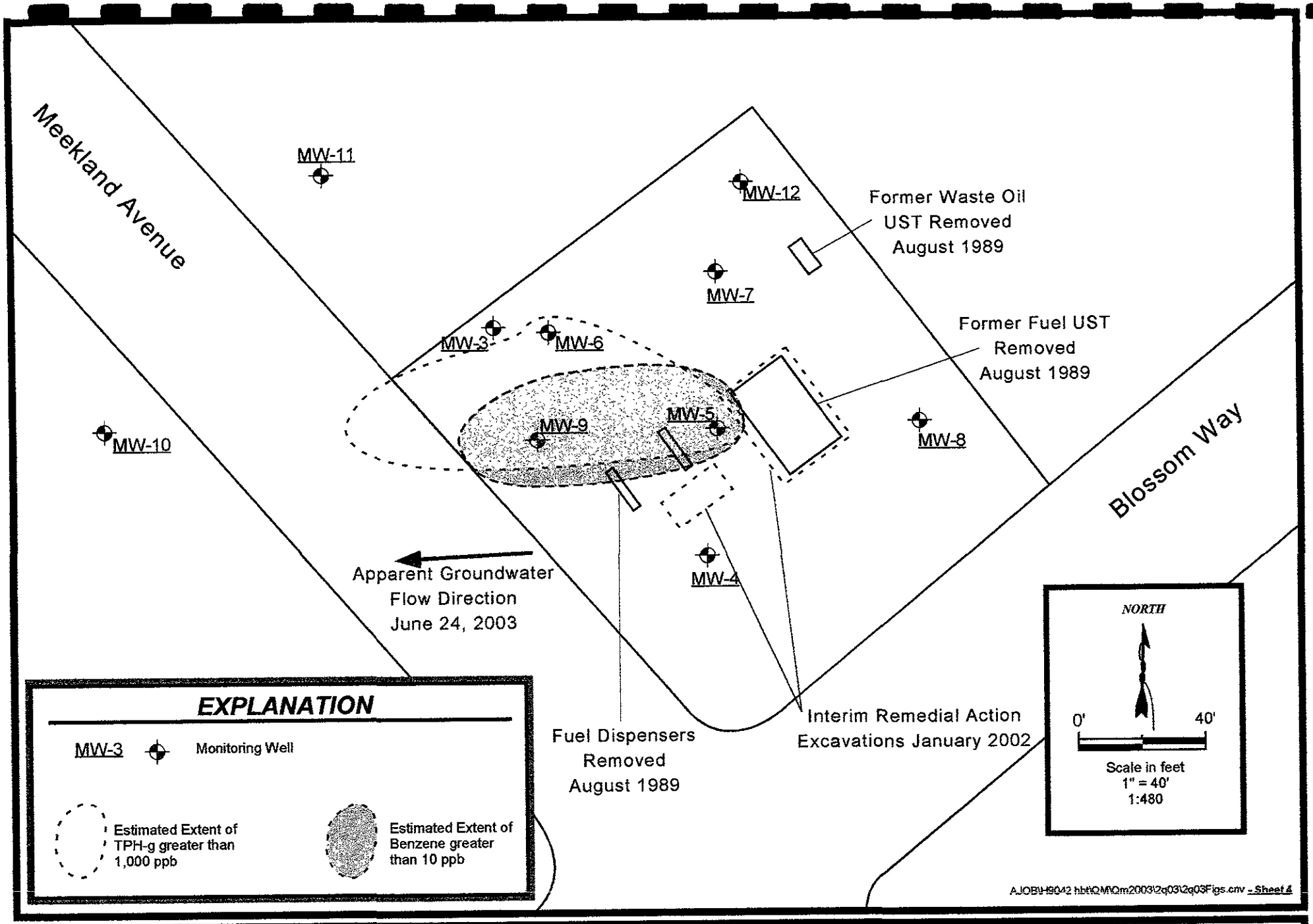
Site Plan with PHC Concentrations in Groundwater
June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 3
Project H9042



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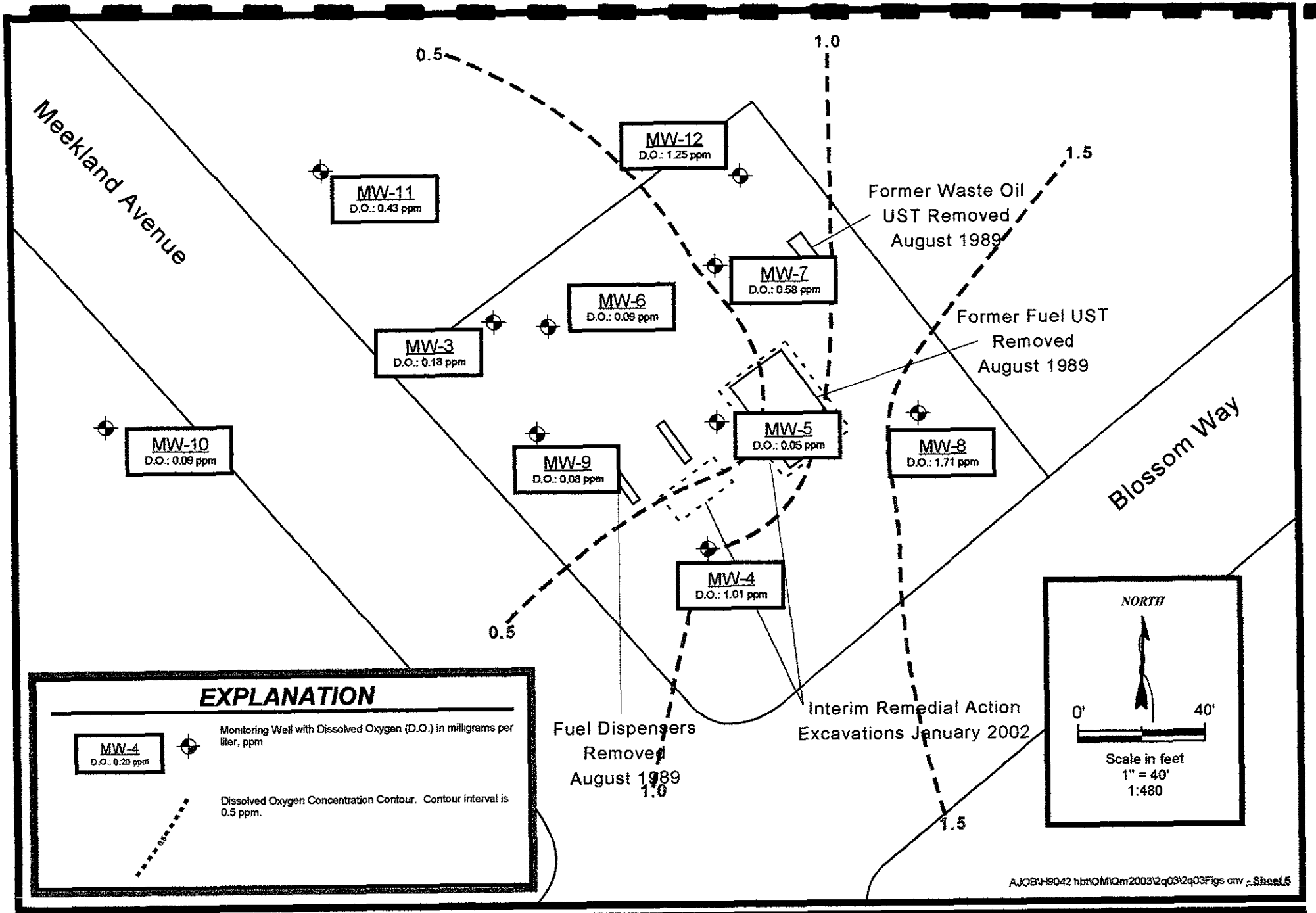
Site Plan with Extent of TPH-g and Benzene in Groundwater, June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 4 Project H9042



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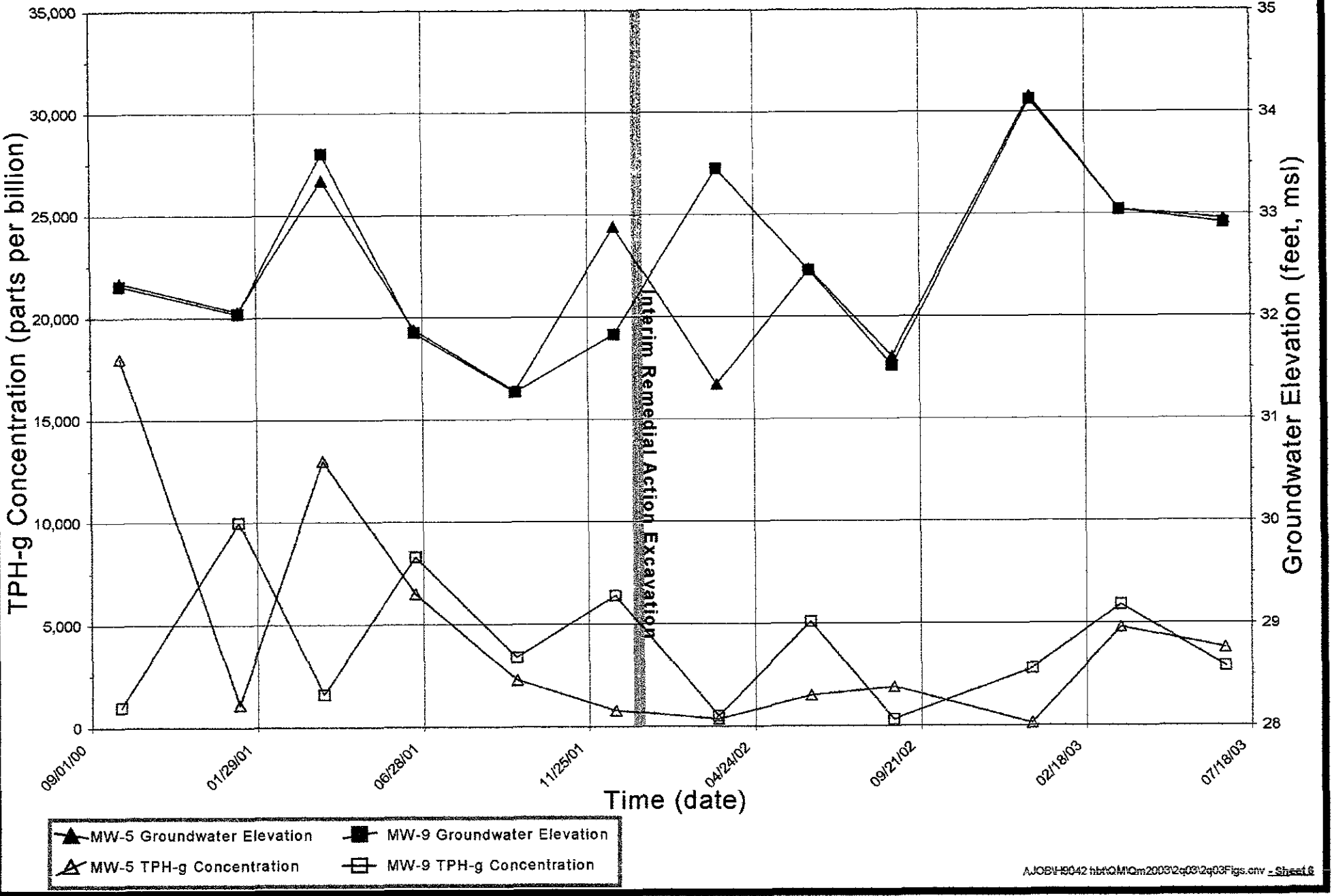
Site Plan with Dissolved Oxygen Contours
June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 5
Project H9042



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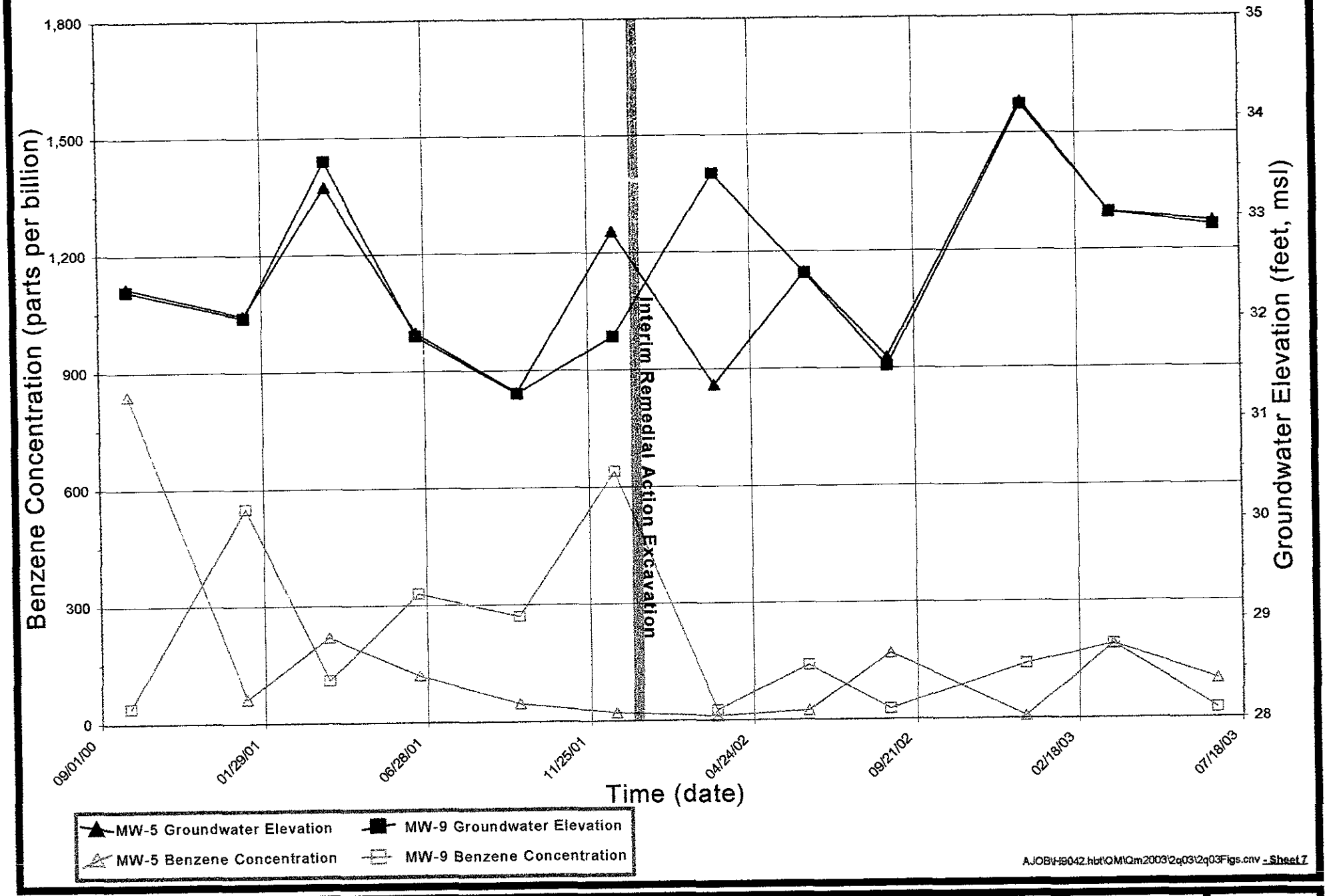
TPH-g and Groundwater Elevation in MW-5 and MW-9 Through June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 6
Project H9042



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Benzene and Groundwater Elevation in MW-5 and MW-9 Through June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 7
Project H9042

EXPLANATION

Underground Utilities Listed According To Depth
(Approximate Depths Given Shallowest to Deepest)

- Gas Line (approximately 2 feet bgs)
- Gas Manhole
- Water Line (approximately 3 feet bgs)
- Water Chirsty Box
- Water Box with Meter
- Storm Drain Line (approximately 6 feet bgs)
- Storm Drain Manhole
- Storm Drain Inlet (DI)
- Sewer Line (approximately 8 feet bgs)
- Sewer Manhole

Above Ground Utilities

- Street Lighting
- Overhead Electrical

Misc. Objects

- MW-8 ⊕ Groundwater Monitoring Well
- Approximate Property Line

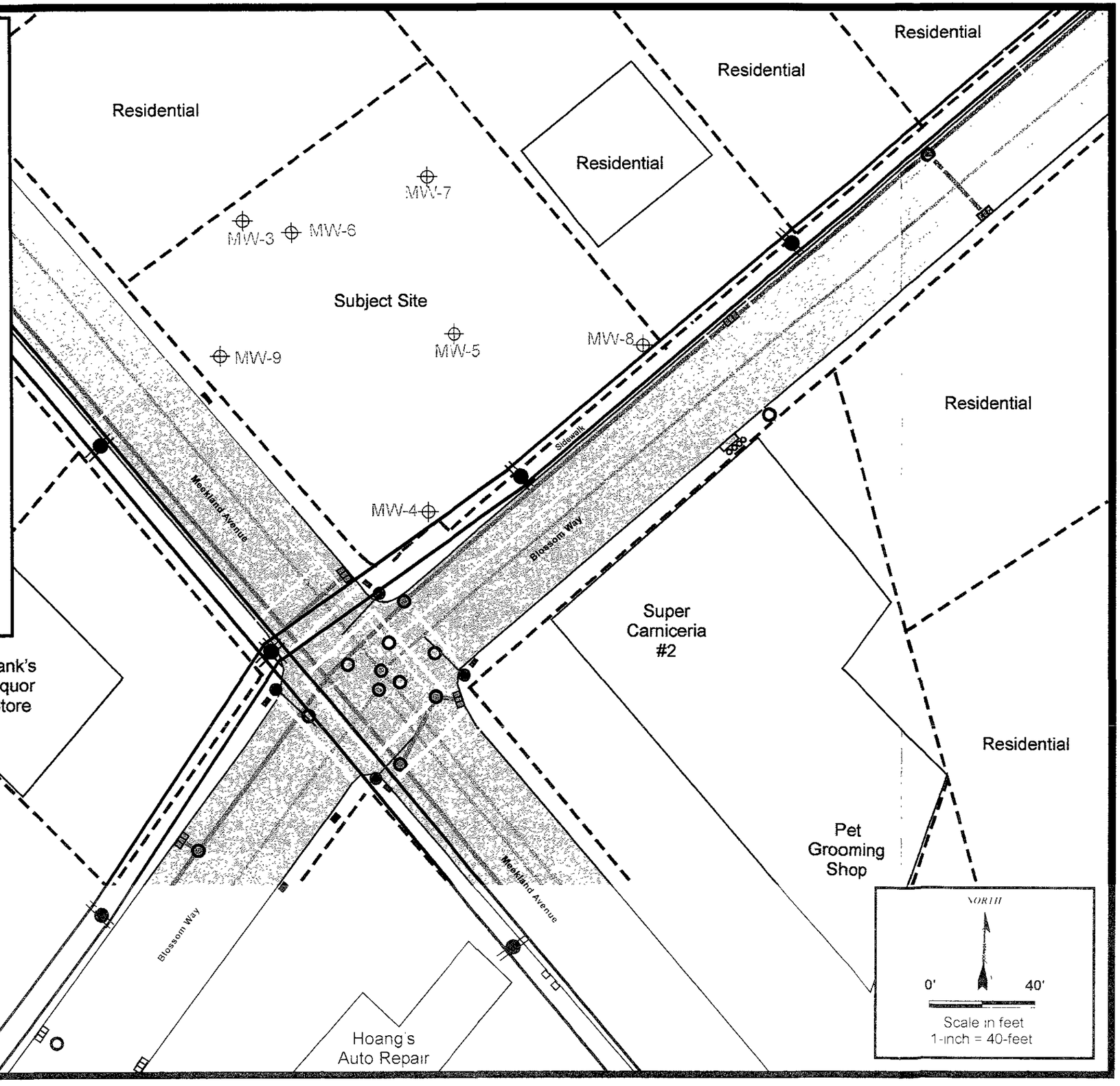

FIGURE 8
Job # H9042

Utilities Map
Former Harbert Transportation Facility
19984 Meekland Avenue
Hayward, California

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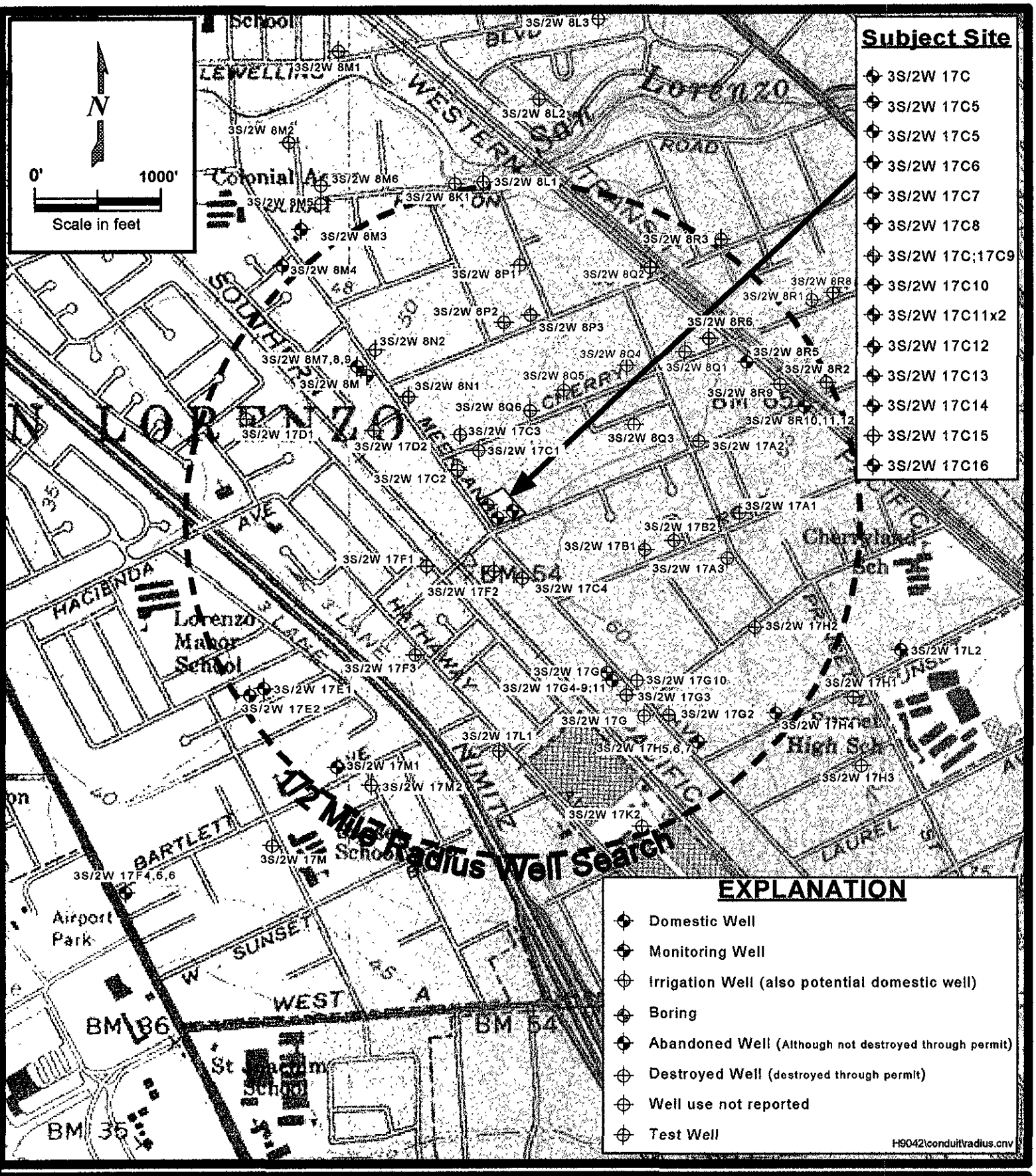
H9042 conduit utilities.cn



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1/2-Mile Radius Well Map
Former Harbert Transportation Facility
19984 Meekland Avenue
Hayward, California

Figure 9
Job # H9042

Appendix A

Field Methodologies for Groundwater Monitoring and Field Data Forms

Appendix A
Field Methodologies for Groundwater Monitoring

Weber, Hayes and Associates' groundwater monitoring field methodology is based on procedures specified in the *LUFT Field Manual*. The first step in groundwater well sampling is for Weber, Hayes and Associates field personnel to measure the depth-to-groundwater to the nearest hundredth (0.01) of a foot with an electric sounder. If the well appears to be pressurized, or the groundwater level is fluctuating, measurements are made until the groundwater levels stabilizes, and a final depth-to groundwater measurement is taken and recorded. After the depth-to-groundwater is measured, the well is then checked for the presence of free product with a clear, disposable polyethylene bailer. If free product is present, the thickness of the layer is recorded, and the product is bailed to a sheen. All field data (depth-to-groundwater, well purge volume, physical parameters, and sampling method) is recorded on field data sheets (see attached). Because removing free product may skew the data, wells that contain free product are not used in groundwater elevation and gradient calculations.

After measuring the depth-to-groundwater, each well, starting with the cleanest well (based on analytical results from the last sampling event), is purged with a low flow submersible electric pump. During purging the physical parameters of temperature, conductivity, pH, dissolved oxygen (D.O.) concentration, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with a QED MP20 Micropurge Flow-Through-Cell and Meter to insure that these parameters have stabilized (are within ~ 15 percent of the previous measurement). The QED MP20 Meter is capable of contiguously monitoring the physical parameters of the purge water via the flow through cell and providing an alarm to indicate when the physical parameters have stabilized to the users specifications. Purging is determined to be complete (stabilized aquifer conditions reached) after the removal of approximately three to five well volumes of water or when the physical parameters have stabilized. Dissolved oxygen and ORP measurements are used as an indicator of intrinsic bioremediation within the contaminant plume. All field instruments are calibrated before use.

All purge water is stored on site in DOT-approved, 55-gallon drums for disposal by a state-licensed contractor pending laboratory analysis for fuel hydrocarbons.

After purging, the water level in the well is allowed to recover to 80 percent of its original depth before a sample is collected. After water level recovery, a groundwater sample is collected from each well with a new, disposable bailer, and decanted into the appropriate laboratory-supplied sample container(s). The sample containers at this site were 40-ml. vials. Each vial was filled until a convex meniscus formed above the vial rim, then sealed with a Teflon®-septum cap, and inverted to insure that there were no air bubbles or head space in the vial. All samples are labeled in the field and transported in insulated containers cooled with blue ice to state-certified laboratories under proper chain of custody procedures.

All field and sampling equipment is decontaminated before, between, and after measurements or sampling by washing in an Liqui-Nox and tap water solution, rinsing with tap water, and rinsing with distilled water.

Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

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Fax: (831) 722-1159

INDICATE ATTACHMENTS THAT APPLY

____ Data Sheets
____ COC's
____ Site Map
____ Photo Sheet
____ Chargeable Materials

Job Name: **Harbert Transportation**	*Date:* **June 24, 2003**
Field Location: **19984 Meekland Avenue, Hayward**	*Study #:* **H9042.Q**
Field Tasks: ☐ *Drilling* ☑ *Sampling* ☑ *Other* **2nd Quarter 2003 Well Sampling**	*Weather Conditions:* Clear + Warm
Personnel/Company onsite: (Weber, Hayes and Associates) **Chad Taylor**	

FIELD WORK PLANNING: Performed on: **June 23, 2003**

Meet with project manager: **X** yes, or no.

Number of wells to be sampled: ~~Six~~ 5 **Wells, with D.O. in all wells**
Sample wells: **MW-3, 5, 6, 9, and 10 for TPH-g, BTEX, MTBE.**

Proposed sampling date: **June 24, 2003**

TIME: 0645
Arrive onsite to perform 2nd Quarter Monitoring Well Sampling.

COMMENTS:
Send all analytical to Entech Analytical Laboratory.

INITIALS:

CT -All sampling is conducted according to Standard Operating Procedure (SOP) 10I/
-Water Quality Sampling Information for each well sampled is recorded on following pages.
-Upon sampling, all samples are placed immediately in coolers containing blue ice.
-After sampling each well all equipment is decontaminated according to SOP 10B/.
-All purge water is properly disposed in 55-gallon drums to be purged at a later date.
-All samples are recorded on field Chain-of-Custody Sheets for transport to Laboratory.

BEGIN CALIBRATION:

QED MP20 Flow Through Cell: Temp = 11.49°C pH = 7.00 & 10.00, EC = 1.413 mS Barometric Pressure = 760
D.O. % Saturation = 100%, ORP = N/A

BEGIN SAMPLING ALL WELLS:

MW-3 MW-10 MW-6 MW-5 MW-9 ____ ____ ____ ____ ____ ____ ____

-See information below for general monitoring well information this sampling round.

COMMENTS:
All well will be purged until the QED MP20 unit indicates that the water quality parameters (pH, Conductivity, Temp, D.O., and ORP) have stabilized to within ~ 15 % or once four casing volumes in the column requiring sampling have been removed(see Water Quality Sampling Field Forms for details). Wells will be purged from bottom-up and will follow standard operating procedures by WHA. Wells will be sampled using a bladder pump, or disposable bailer.

CT 6/24/03
Signature of Field Personnel & Date

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Hydrogeology and Environmental Engineering
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Fax: (831) 722-1159

Location	GW Depth (TOC)	Total Depth of Well	D.O. (mg/L)	ORP (mV)	Floating Product (comments).
MW-3	22.55'	40'	0.18	-2	No FP, No Odor
MW-4	22.74'	40'	1.01	22	No FP, No Odor
MW-5	23.08'	45'	0.05	-67	No FP, Mod Odor
MW-6	23.06'	45'	0.09	-23	No FP, Very Slight Odor.
MW-7	23.62'	40'	0.58	32	No FP, No Odor
MW-8	23.03'	40'	1.71	12	No FP, No Odor
MW-9	22.30'	40'	0.08	-66	No FP, Mod Odor
MW-10	22.12'	40'	0.09	-22	No FP, Very Slight Odor
MW-11	22.37'	40'	0.43	21	No FP, No Odor
MW-12	23.41'	40'	1.23	29	No FP, No Odor

CT 6/24/03

HOW MANY PURGE DRUMS WERE LEFT ONSITE 7. APPROXIMATE GAL. 350.
CALL ~~BAYSIDE~~ OIL ON 6/25/03 TO HAVE DRUMS PURGED.
DRUMS WILL BE PURGED ON ??.

COMMENTS:

1/24/03

E:\AJOB\H9042.hbt\QM\QM2003\2q03\QMFIELD.WPD

Signature of Field Personnel & Date

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Harbert Transportation /H9042.Q **Date:** 6/24/03

Sample No.: MW-3 **Sample Location:** MW-3

Samplers Name: Chad Taylor **Recorded by:** CT

Purge Equipment:

_____ Bailer: Disposable or Acrylic
X Whaler # 2
_____ Bladder Pump
_____ Submersible Pump

Sample Equipment:

X Disposable Bailer
_____ Whaler # _____
_____ Bladder Pump
_____ Submersible Pump

Analyses Requested (cricle all that apply):

(TPH-gas) (BTEX) (MTBE) ~~1, 2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3x40-VOA's

Well Number: MW-3
Depth to Water: 22.53' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 17.47' feet (well depth - depth to water)
Volume in Well: 2.7952 gallons (casing volume X height)
Gallons to purge: 11.18 gallons (volume X 4)

Well Diameter: 2" **with Casing Volume of:**

(2" = (0.16 Gallon/Feet))
4" = (0.65 Gallon/Feet)
5" = (1.02 Gallon/Feet)
6" = (1.47 Gallon/Feet)
8" = (2.61 Gallon/Feet)

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
0810	0	18.37	0.726	2.74	7.15	94	Moderate: Gry, Mod Fines	
0811	1	18.69	0.731	1.97	7.12	33	Low: Clear-Gry, Mod Fines	
0811	2	18.72	0.732	1.29	7.17	26	Low: Clear, Trace Fines	
0812	3	18.77	0.733	0.81	7.25	17	↓	
0813	4	18.77	0.737	0.47	7.21	13	↓	
0815	5	18.79	0.735	0.44	7.20	7	↓	
0815	7	18.82	0.734	0.32	7.16	2	↓	
0817	10	18.85	0.701	0.21	7.13	-1	↓	
0818	12	18.85	0.732	0.18	7.13	-2	↓	

Wait for 80% well volume recovery prior to sampling.

Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of orginal well volume:

Original Height of Water Column = 17.47' x 0.8 = 13.976' - (Well Depth) 40' = Depth to water 26.02'

Time: 0821 1st measured depth to water, 23.41' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No ____
Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____
Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____

Sample Well

Time: 0821 Sample ID: MW-3 Depth: 23.41' feet below TOC

Comments: No Floaty Product. No Odor

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Hubert Transportation / 119042.4 **Date:** 6/24/03

Sample No.: MW-10 **Sample Location:** MW-10

Samplers Name: Chad Tyler **Recorded by:** CT

Purge Equipment:

_____ Bailer: Disposable or Acrylic
X Whaler # 2
_____ Bladder Pump
_____ Submersible Pump

Sample Equipment:

X Disposable Bailer
_____ Whaler # _____
_____ Bladder Pump
_____ Submersible Pump

Analyses Requested (cricle all that apply):

(TPH-gas) (BTEX) (MTBE) ~~1,2 DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH diesel, TPH Motor Oil, TPH Heating Oil~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used:

3 x 40-mL VOA's

Well Number: MW-10
Depth to Water: 23.18 TOC
Well Depth: 40' BGS or TOC
Height W-Column: 17.88 feet (well depth - depth to water)
Volume in Well: 11.622 gallons (casing volume X height)
Gallons to purge: 46.49 gallons (volume X 4)

Well Diameter: 4" **with Casing Volume of:**

2" = (0.16 Gallon/Feet)
4" = (0.65 Gallon/Feet)
5" = (1.02 Gallon/Feet)
6" = (1.47 Gallon/Feet)
8" = (2.61 Gallon/Feet)

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
0845	0	18.40	0.959	1.50	7.07	49	Moderate Gray, Mod Fines	
0846	2	18.57	0.912	0.77	7.01	12	↓ ↓ ↓	
0847	4	18.75	0.870	0.47	7.04	-1	Low; Clear-Gray, Mod Fines	
0848	6	18.81	0.867	0.33	7.02	-7.1	↓ ↓ ↓	
0849	8	18.82	0.866	0.28	7.04	-7.4	Low; Clear, Trace Fines	
0851	10	18.85	0.863	0.25	7.01	-7.5	↓ ↓ ↓	
0857	20	18.88	0.862	0.23	7.05	-22		
0910	40	18.88	0.865	0.09	7.08	-22		
0911	42	18.88	0.865	0.09	7.08	-22	↓ ↓ ↓	✓

Wait for 80% well volume recovery prior to sampling.

Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of orginal well volume:

Original Height of Water Column = 17.88' x 0.8 = 14.304' - (Well Depth) 40' = Depth to water 25.70'

Time: 0913 1st measured depth to water, 23.10' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No
Time: NA 1st measured depth to water, NA feet below TOC. Is well within 80% of original well casing volume: Yes NA No
Time: NA 1st measured depth to water, NA feet below TOC. Is well within 80% of original well casing volume: Yes NA No

Sample Well

Time: 0913 Sample ID: MW-10' Depth: 23.10' feet below TOC

Comments: No Floating Product. Very Slight Odor.

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / 49042.Q **Date:** 6/24/03

Sample No.: MW-6 **Sample Location:** MW-6

Samplers Name: Chad Taylor **Recorded by:** CT

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- X Whaler # 3
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

- X Disposable Bailer
- ____ Whaler # ____
- ____ Bladder Pump
- ____ Submersible Pump

Analyses Requested (cricle all that apply):

~~TPH-gas~~, ~~BTEX~~, ~~MTBE~~, ~~1, 2 DCA, EDB, 8260 Fuel Oxygenates~~

~~TPH diesel, TPH-Motor Oil, TPH-Heating Oil~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3 x 40-mL VOA's

Well Number: MW-6

Depth to Water: 23.06' TOC

Well Depth: 45' BGS or TOC

Height W-Column: 21.94' feet (well depth - depth to water)

Volume in Well: 14.261 gallons (casing volume X height)

Gallons to purge: 57.04 gallons (volume X 4)

Well Diameter: 4" with Casing Volume of:

- 2" = (0.16 Gallon/Feet)
- 4" = (0.65 Gallon/Feet)
- 5" = (1.02 Gallon/Feet)
- 6" = (1.47 Gallon/Feet)
- 8" = (2.61 Gallon/Feet)

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
0954	0	19.10	0.702	3.93	7.04	70	High: Dark Grey, Many Fines	
0956	2	18.70	0.702	0.64	7.01	23	Low: Clear-Grey, Min Fines	
0957	4	18.79	0.702	0.43	7.02	48	Low: Clear, Trace Fines	
0958	6	18.90	0.701	0.30	7.02	61	↓	
1001	10	18.98	0.700	0.21	7.02	73	↓	
1008	20	19.03	0.652	0.80	7.01	12	↓	
1014	30	19.04	0.710	0.16	6.85	-17	↓	
1019	36	19.04	0.717	0.09	6.83	-23	↓	✓
STOP-	Parameters Stabilized, Purge Complete.							

Wait for 80% well volume recovery prior to sampling.

Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of orginal well volume:

Original Height of Water Column = 21.94' x 0.8 = 17.552' - (Well Depth) 45' = Depth to water 27.45'

Time: 1021 1st measured depth to water, 24.02' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No ____

Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____

Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____

Sample Well

Time: 1021 Sample ID: MW-6 Depth: 24.02 feet below TOC

Comments: No Floating Product. Very Slight Odor

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Harbert Transportation | H9042.Q **Date:** 6/24/03

Sample No.: MW-5 **Sample Location:** MW-5

Samplers Name: Chad Taylor **Recorded by:** CT

Purge Equipment:

____ Bailer: Disposable or Acrylic
X Whaler # 3
____ Bladder Pump
____ Submersible Pump

Sample Equipment:

X Disposable Bailer
____ Whaler # ____
____ Bladder Pump
____ Submersible Pump

Analyses Requested (cricle all that apply):

(TPH-gas), (BTEX), (MTBE), ~~1, 2-DCA, EDB, 9260 Fuel Oxygenates~~
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3x40mL VOA's

Well Number: MW-5
Depth to Water: 23.08 TOC
Well Depth: 45' BGS or TOC
Height W-Column: 21.92' feet (well depth - depth to water)
Volume in Well: 14.248 gallons (casing volume X height)
Gallons to purge: 56.99 gallons (volume X 4)

Well Diameter: 4" with Casing Volume of:

2" = (0.16 Gallon/Feet)
4" = (0.65 Gallon/Feet)
5" = (1.02 Gallon/Feet)
6" = (1.47 Gallon/Feet)
8" = (2.61 Gallon/Feet)

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
1042	0	18.75	0.574	0.69	6.82	-19	High: Dark Gry, Many Fines	
1043	2	18.73	0.571	0.37	6.82	-11	Moderate: Gry, Mod Fines	
1045	4	18.86	0.566	0.15	6.82	-15	↓ ↓ ↓	
1046	6	18.94	0.548	0.10	6.82	-51	↓ ↓ ↓	
1049	10	18.98	0.484	0.07	6.80	-83	Low: Clear-Gry, Min Fines	
1056	20	18.97	0.436	0.29	6.84	-71	↓ ↓ ↓	
1105	30	18.90	0.510	0.08	6.84	-65		
1110	38	18.86	0.550	0.05	6.84	-67	↓ ↓ ↓	✓
SDP- Parameters Stabilized. Purge Complete.								

Wait for 80% well volume recovery prior to sampling.

Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of orginal well volume:

Original Height of Water Column = 21.92' x 0.8 = 17.536' - (Well Depth) 45' = Depth to water 27.46

Time: 1113 1st measured depth to water, 24.09' feet below TOC.
Time: ____ 1st measured depth to water, ____ feet below TOC.
Time: ____ 1st measured depth to water, ____ feet below TOC.

Is well within 80% of original well casing volume: Yes ✓ No ____
Is well within 80% of original well casing volume: Yes ____ No ____
Is well within 80% of original well casing volume: Yes ____ No ____

Sample Well

Time: 1113 Sample ID: MW-5 Depth: 24.09' feet below TOC

Comments: No Floating Product. Moderate Odor.

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H9042.Q **Date:** 6/24/03

Sample No.: MW-9 **Sample Location:** MW-9

Samplers Name: Chad Taylor **Recorded by:** CT

Purge Equipment:

____ Bailer: Disposable or Acrylic
X Whaler # 8
____ Bladder Pump
____ Submersible Pump

Sample Equipment:

X Disposable Bailer
____ Whaler # ____
____ Bladder Pump
____ Submersible Pump

Analyses Requested (cricle all that apply):

(TPH-gas) (BTEX) (MTBE) ~~1, 2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3x40mL VOA's

Well Number: MW-9
Depth to Water: 22.30' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 17.70' feet (well depth - depth to water)
Volume in Well: 11.505 gallons (casing volume X height)
Gallons to purge: 46.02 gallons (volume X 4)

Well Diameter: 4" with Casing Volume of:
2" = (0.16 Gallon/Feet)
4" = (0.65 Gallon/Feet)
5" = (1.02 Gallon/Feet)
6" = (1.47 Gallon/Feet)
8" = (2.61 Gallon/Feet)

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Parameters Stabilized
1136	0	20.62	0.541	3.80	6.74	-9	Moderate: Grey, Mod Fines	
1137	2	19.18	0.598	0.26	6.91	-77	Low: Clear, Trace Fines	
1139	4	19.28	0.596	0.14	6.96	-62	↓	
1140	6	19.29	0.586	0.10	6.98	-59	↓	
1143	10	19.32	0.584	0.09	6.99	-59	↓	
1150	20	19.34	0.581	0.22	6.96	-64	↓	
1157	30	19.33	0.602	0.10	6.92	-66	↓	
1201	4036	19.34	0.603	0.09	6.89	-66	↓	✓
STOP- Parameters Stabilized. Type Complete.								

Wait for 80% well volume recovery prior to sampling.

Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of orginal well volume:

Original Height of Water Column = 17.70' x 0.8 = 14.16' - (Well Depth) 40' = Depth to water 25.84'

Time: 1203 1st measured depth to water, 23.42' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No____
Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No____
Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No____

Sample Well

Time: 1203 Sample ID: MW-9 Depth: 23.42' feet below TOC

Comments: No Floating Product. Moderate Odor

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Dr., Watsonville, CA 95076
(831) 722-3580 (831) 662-3100
Fax: (831) 722-1159

Letter of Transmittal

to: Mr. Jerry Harbert
46765 Mountain Cove Drive
Indian Wells, California 92210

from: Craig Drizin

re: Harbert Transportation, 19984 Meekland Avenue, Hayward, California

date: August 29, 2003

Number of Copies	Date of Documents	Description
1	August 29, 2003	*Fuel Leak Case Closure Report*

c: Mr. Scott Seery
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502 - 6577

Mr. Jeff Lawson
Silicon Valley Law Group
152 N. Third Street, Suite 900
San Jose, California 95112

Ms. Laurie Berger
905 Emerald Hill Road
Redwood City, California 94061

Mr. Gregg Petersen
Durham Transportation
9011 Mountain Ridge Drive, Travis Building, Suite 200
Austin, Texas 78759 - 7275

Appendix B

Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc.

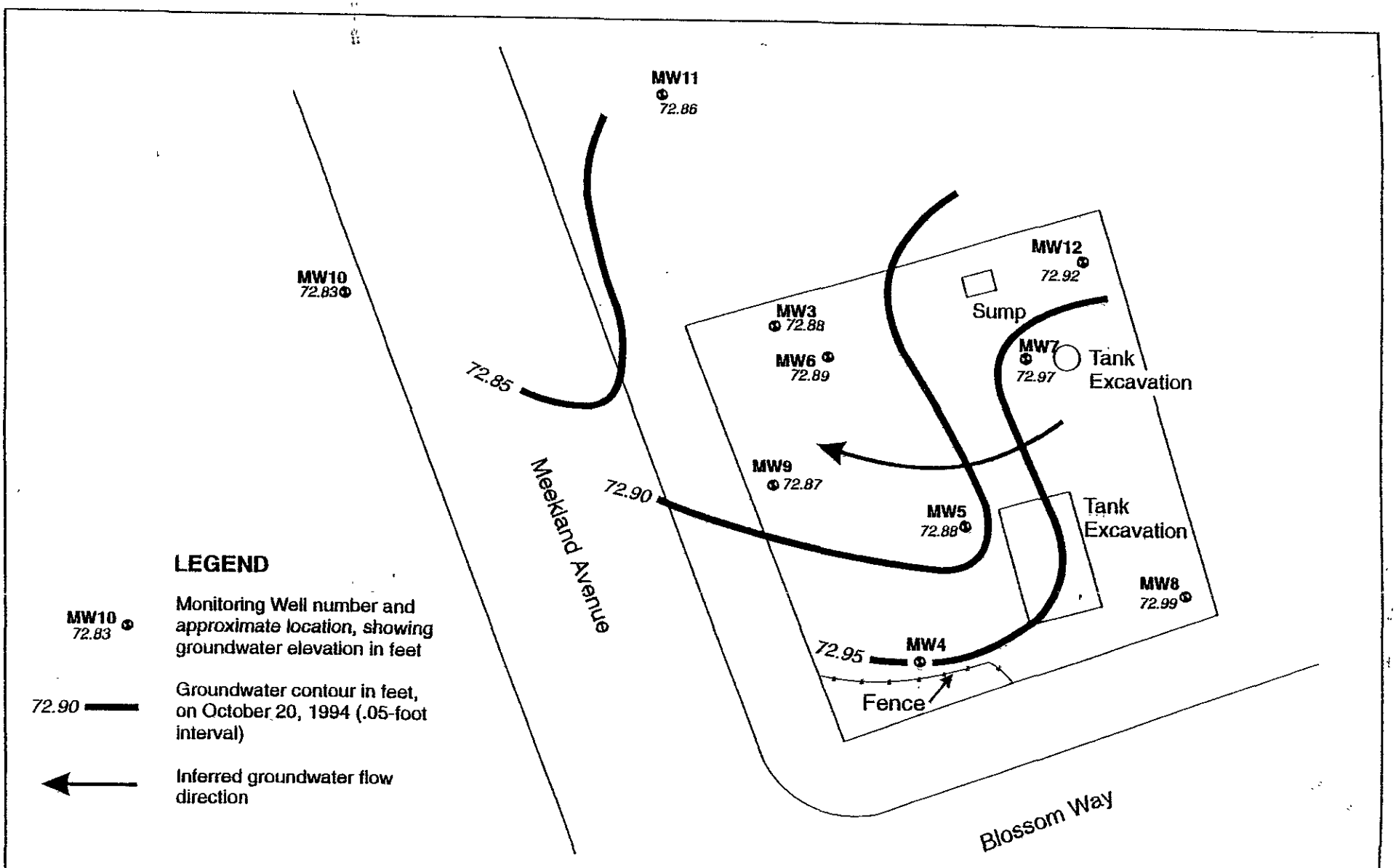
AGI TECHNOLOGIES

Table 1
Groundwater Elevation Data
Harbert Transportation/Meekland Avenue
Hayward, California

Well Number	Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (ft bgs)	Groundwater Elevation (feet)
MW3	10/20/94	100.00	27.12	72.88
	09/15/95		24.22	75.78
	03/14/96		19.02	80.98
	09/26/96		23.61	76.39
MW4	10/20/94	100.27	27.32	72.95
	09/15/95		24.42	75.85
	03/14/96		19.23	81.04
	09/26/96		23.85	76.42
MW5	10/20/94	100.59	27.71	72.88
	09/15/95		24.87	75.72
	03/14/96		19.95	80.64
	09/26/96		24.38	76.21
MW6	10/20/94	100.57	27.68	72.89
	09/15/95		24.79	75.78
	03/14/96		19.54	81.03
	09/26/96		24.20	76.37
MW7	10/20/94	101.22	28.25	72.97
	09/15/95		25.35	75.87
	03/14/96		20.06	81.16
	09/26/96		24.75	76.47
MW8	10/20/94	100.72	27.73	72.99
	09/15/95		24.81	75.91
	03/14/96		19.52	81.20
	09/26/96		24.13	76.59
MW9	10/20/94	99.77	26.90	72.87
	09/15/95		24.01	75.76
	03/14/96		18.80	80.97
	09/26/96		23.50	76.27
MW10	10/20/94	99.29	26.46	72.83
	09/15/95		23.79	75.50
	03/14/96		18.62	80.67
	09/26/96		23.30	75.99
MW11	10/20/94	99.75	26.89	72.86
	09/15/95		24.05	75.70
	03/15/96		18.79	80.96
	09/26/96		23.53	76.22
MW12	10/20/94	101.03	28.11	72.92
	09/15/95		25.19	75.84
	03/14/96		19.84	81.19
	09/26/96		24.57	76.46

Note:

ft bgs - Feet below ground surface.



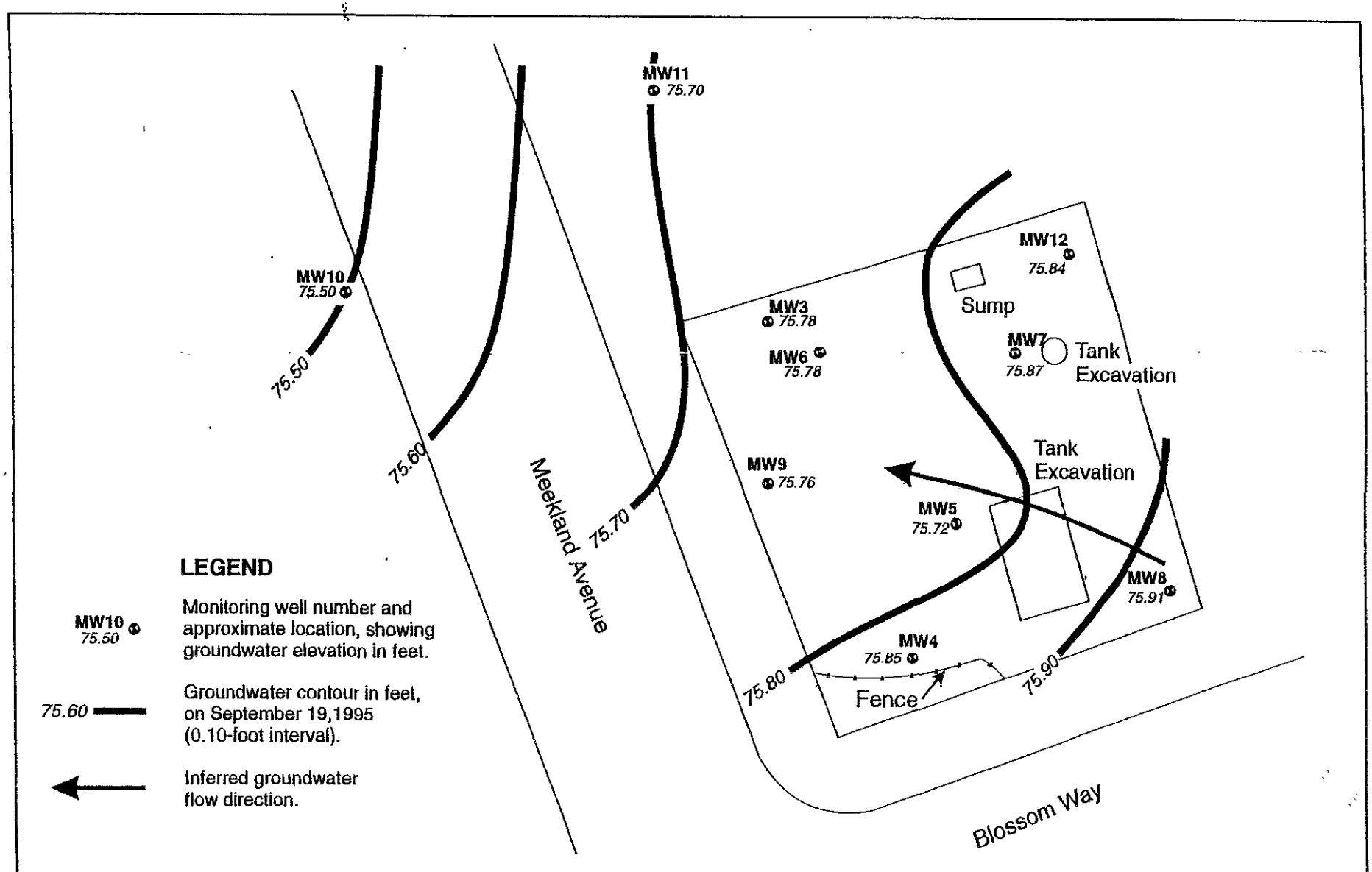
Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

10/20/94

FIGURE 3

AGI TECHNOLOGIES	PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
grdwat.cdr	15,833.002	DFF	29 August 94		DFF	23 Nov 94



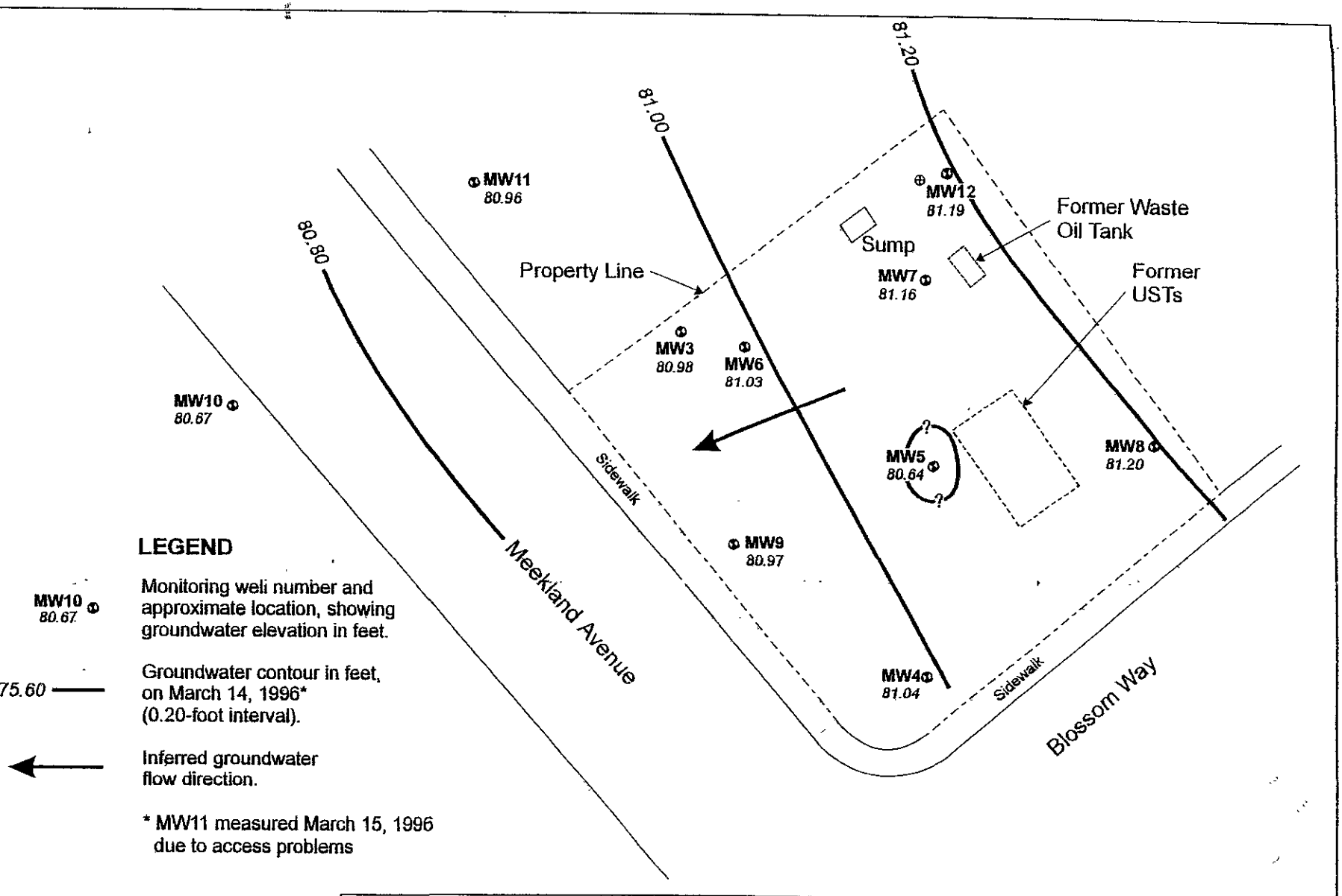
AGI TECHNOLOGIES

Groundwater Elevation and Contour Map 9.19.95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 3

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
grdwat.cdr	15,833.002	DFF	29 August 94	BJA	8 Nov 95



Groundwater Elevation and Contour Map

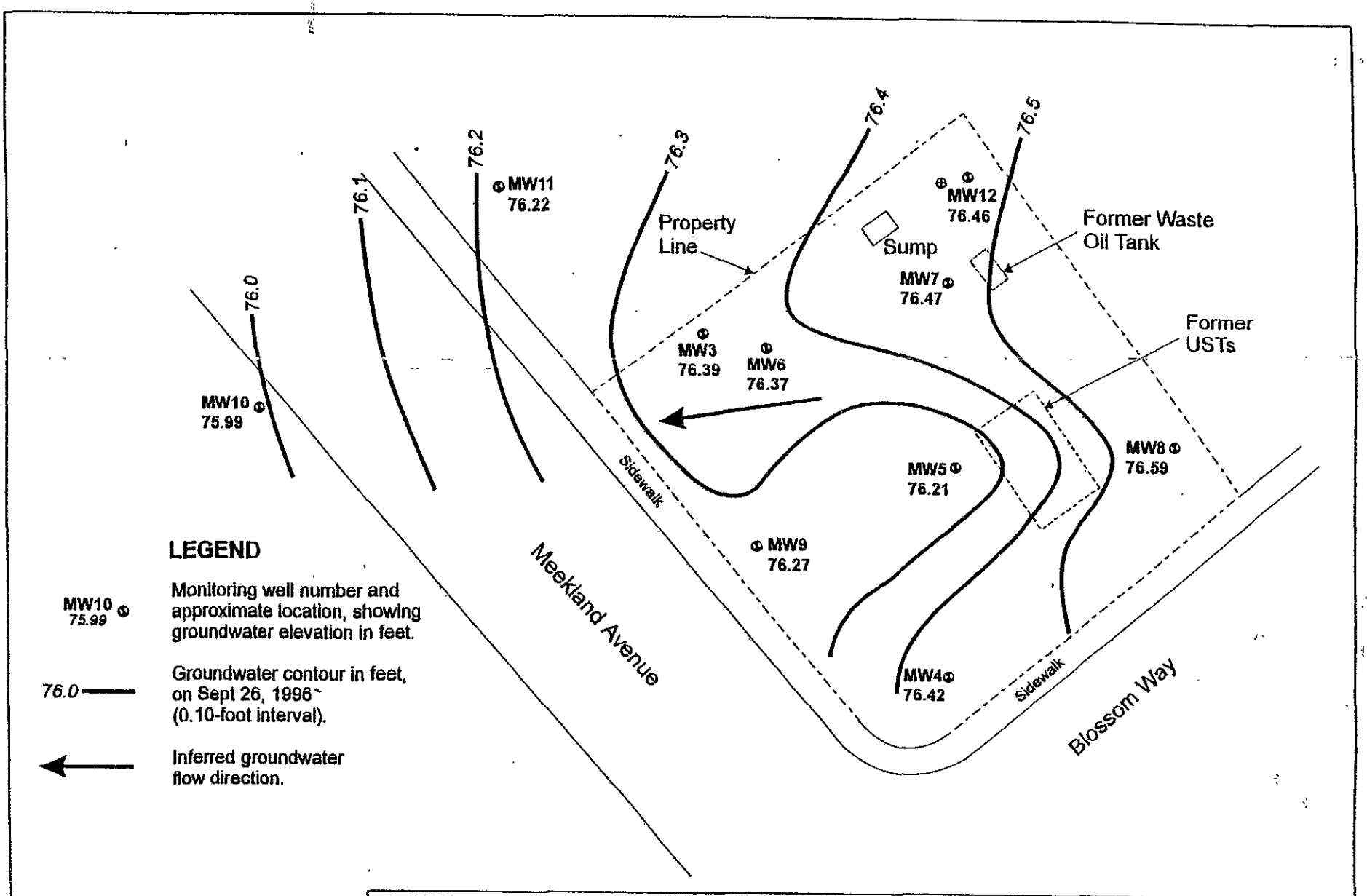
Harbert Transportation/Meekland Avenue
Hayward, California

3.14.96

FIGURE 3

AGI TECHNOLOGIES

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
gw-mar96.cdr	15,833.002	DFF	29 August 94		ALW	15 Apr 96



AGI TECHNOLOGIES

Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

9.26.96

FIGURE 3

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
gw-sep96.cdr	15,833.002	DFF	29 August 94	ALW	15 Apr 96

Appendix C

Certified Analytical Report - Groundwater Samples

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

July 02, 2003

Chad Taylor
Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076

Order:	34905	**Date Collected:**	6/24/2003
Project Name:	Harbert Transportation	**Date Received:**	6/25/2003
Project Number:	H9042.Q	**P.O. Number:**	H9042.Q
Project Notes:			

On June 25, 2003, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Liquid	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable)
		EPA 8020
	MTBE by EPA 8260B	EPA 8260B

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,

Patti Sandrock
QA/QC Manager

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076
Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-001 **Client Sample ID:** MW-3

Sample Time: 8:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	5.6		1	0.5	0.5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	2.8		1	1	1	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	87.8	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	260		1	50	50	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	120.4	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076
Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-002 **Client Sample ID:** MW-5

Sample Time: 11:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	100		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	58		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	310		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	670		10	1	10	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	77.0	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	3800		10	50	500	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	82.0	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-003 **Client Sample ID:** MW-6

Sample Time: 10:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	ND		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	35		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	15		10	1	10	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	78.2	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1500		10	50	500	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.9	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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Weber, Hayes and Associates
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Watsonville, CA 95076
Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-004 **Client Sample ID:** MW-9

Sample Time: 12:03 PM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	25		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	9.1		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	230		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	270		10	1	10	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	65.4	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	2900		10	50	500	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	81.5	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076
Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-005 **Client Sample ID:** MW-10

Sample Time: 9:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		5	0.5	2.5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020
Toluene	ND		5	0.5	2.5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020
Ethyl Benzene	ND		5	0.5	2.5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020
Xylenes, Total	ND		5	1	5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105.7	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	750		5	50	250	µg/L	N/A	6/30/2003	WGC62875	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	128.6	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-001 **Client Sample ID:** MW-3

Sample Time: 8:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	1	1	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99.2	73 - 151
Dibromofluoromethane	90.9	57 - 156
Toluene-d8	95.8	77 - 150

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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Weber, Hayes and Associates
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Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-002 **Client Sample ID:** MW-5

Sample Time: 11:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	1	5	0.3	1.5	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	86.6	73 - 151
Dibromofluoromethane	87.0	57 - 156
Toluene-d8	85.4	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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Watsonville, CA 95076
Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-003 **Client Sample ID:** MW-6

Sample Time: 10:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		2	1	2	0.3	0.6	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.8	73 - 151
Dibromofluoromethane	89.0	57 - 156
Toluene-d8	94.8	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-004 **Client Sample ID:** MW-9

Sample Time: 12:03 PM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	1	5	0.3	1.5	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	86.6	73 - 151
Dibromofluoromethane	87.5	57 - 156
Toluene-d8	86.9	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Entech Analytical Labs, Inc.

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Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-005 **Client Sample ID:** MW-10

Sample Time: 9:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	1	5	0.3	1.5	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.1	73 - 151
Dibromofluoromethane	87.3	57 - 156
Toluene-d8	96.0	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Quality Control Results Summary

QC Batch #: WGC62869B
Matrix: Liquid
Units: µg/L
Date Analyzed: 6/26/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		221.3	LCS	88.5			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			92.3			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		7.3	LCS	91.3			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.	LCS	100.0			65.0 - 135.0
Toluene	EPA 8020	ND		8		7.5	LCS	93.8			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		25.2	LCS	105.0			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			90.4			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.4	LCS	92.5			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			90.4			65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		220.4	LCSD	88.2	0.41	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			86.4			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		8.3	LCSD	103.8	12.82	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.8	LCSD	110.0	9.52	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		8		8.	LCSD	100.0	6.45	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		26.3	LCSD	109.6	4.27	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			104.5			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.9	LCSD	98.8	6.54	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			104.5			65 - 135					

Entech Analytical Labs, Inc.

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Quality Control Results Summary

QC Batch #: WGC62875 **Units:** µg/L
Matrix: Liquid **Date Analyzed:** 6/30/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		223.	LCS	89.2			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			82.1			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		7.7	LCS	96.3			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.4	LCS	105.0			65.0 - 135.0
Toluene	EPA 8020	ND		8		7.9	LCS	98.8			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		26.1	LCS	108.8			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			93.2			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.7	LCS	96.3			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			93.2			65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		233.4	LCSD	93.4	4.56	25.00	65.0 - 135 0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			91.1			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		7.6	LCSD	95.0	1.31	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.3	LCSD	103.8	1.20	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		8		7.7	LCSD	96.3	2.56	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		25.7	LCSD	107.1	1.54	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			91.6			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.7	LCSD	96.3	0.00	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			91.6			65 - 135					

Entech Analytical Labs, Inc.

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Quality Control Results Summary

QC Batch #: WMS110133
Matrix: Liquid

Units: µg/L
Date Analyzed: 6/30/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: MTBE by EPA 8260B											
Methyl-t-butyl Ether	EPA 8260B	ND		20		17.5	LCS	87.5			54.0 - 130.5

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.0	73 - 151
Dibromofluoromethane	90.8	57 - 156
Toluene-d8	93.5	77 - 150

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: MTBE by EPA 8260B											
Methyl-t-butyl Ether	EPA 8260B	ND		20		18.	LCSD	90.0	2.82	25.00	54.0 - 130.5

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.4	73 - 151
Dibromofluoromethane	89.6	57 - 156
Toluene-d8	93.9	77 - 150

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Dr., Watsonville, CA 95076
(831) 722-3580 (831) 662-3100
Fax: (831) 722-1159

CHAIN -OF-CUSTODY RECORD

PROJECT NAME AND JOB #: Harbert Transportation / H9042.Q

SEND CERTIFIED RESULTS TO: Chad Taylor

ELECTRONIC DELIVERABLE FORMAT: [X] YES [ ] NO

Sampler: [illegible]

Date: 6/24/03

LABORATORY: Entech

TURNAROUND TIME: (Standard Five-Day) 24hr Rush 48hr Rush 72hr Rush

GLOBAL I.D.: T0600100475

Field Point Name (GeoTracker)	Sample Identification	Sample Depth	Date Sampled	Time Sampled	Matrix	SAMPLE CONTAINERS: 40 mL VOAs (preserved)	1 Liter Amber Jars	___mL Poly Bottle	Liner Acetate or Brass	REQUESTED ANALYSIS: Total Petroleum Hydrocarbons: Diesel	Purgeable Fuel-Scan	Gasoline & BTEX-MTBE by EPA Method# 8015M-&-8020	Volatile Organics: Fuel Oxygenates EPA Method# 8260	Tributyl Alcohol EPA Method# 8260	1,2-DCA by EPA Method# 8260	Additional Analysis: Lead Lab to Filter and Acidify	Total Suspended Solids	
MW-3	MW-3	23.91'	6/24/03	0821	Aq	3		34905-001				X						
MW-5	MW-5	24.09'		1113		3		002				X						
MW-6	MW-6	24.02'		1021		3		003				X						
MW-9	MW-9	23.42'		1203		3		004				X						
MW-10	MW-10	23.10'		0913		3		005				X						

	RELEASED BY:	Date & Time		RECEIVED BY:	Date & Time	SAMPLE CONDITION: (circle 1)		
1.)	[illegible]	6/25/03	→	[illegible]	6/25/03 @ 15:10	Ambient	(Refrigerated)	Frozen
2.)	[illegible]	6/26/03	→			Ambient	Refrigerated	Frozen
3.)			→			Ambient	Refrigerated	Frozen
4.)			→			Ambient	Refrigerated	Frozen
5.)			→			Ambient	Refrigerated	Frozen

NOTES:

X *If MTBE is detected by EPA Method 8020, please confirm detections by EPA Method 8260 with a minimum detection limit of 5 ug/L, and report only confirmed 8260 detections.*

X *For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits, please confirm by EPA Method #8260.*

X *Please use MDL (Minimum Detection Limit) for any diluted samples.*

ADDITIONAL COMMENTS

- Please produce and e-mail an EDF of these results to frances@weber-hayes.com.

Appendix D

Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.

Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods										
		8015 Modified			8020				8010			Other
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
		µg/L			µg/L				µg/L			µg/L
MW1	07/86	42,000	NA	NA	5,500	NA	4,900	6,100	NA	NA	NA	
	03/90	27,000	NA	NA	2,700	491	840	800	ND	ND	ND	
	07/90	27,000	11,000	ND	4,000	ND	1,500	4,400	ND	ND	62	
	10/90	43,000	8,500	ND	3,400	1,200	2,700	5,300	0.4	ND	26	
	01/91	22,000	2,700	ND	3,000	990	1,800	2,800	ND	ND	27	
	04/91	42,000	3,100 [a]	NA	5,100	1,200	3,700	3,200	ND	ND	120	
	07/91	46,000	4,300 [a]	NA	6,500	830	2,900	3,700	ND	ND	64	
	10/91	27,000	4,300 [a]	NA	4,400	1,100	1,400	3,200	ND	ND	25	
	01/92	27,000	14,000 [a]	NA	3,300	1,200	1,600	3,800	ND	ND	24	
	04/92	33,000	11,000 [a]	NA	8,900	1,200	3,500	3,700	ND	ND	120	
	07/92	41,000	19,000 [a]	NA	5,600	1,300	2,600	4,000	ND	ND	49	
	10/92	33,000	3,500 [a]	NA	4,400	1,200	2,100	4,000	ND	ND	61	
MW3	11/89	29,000	NA	NA	4,600	680	1,100	1,100	ND	ND	36	Lead 40
	11/89	NA	NA	NA	NA	NA	NA	NA	ND	ND	36	Lead 40
	03/90	12,000	NA	NA	2,300	59	300	490	ND	ND	ND	
	07/90	7,300	990	ND	5,200	ND	440	480	ND	ND	67	
	10/90	6,200	970	ND	75	7.5	150	250	ND	ND	48	
	10/90	NA	NA	NA	NA	NA	NA	NA	ND	ND	22	Lead 3
	01/91	4,600	680	ND	2,200	220	110	89	ND	ND	40	
	04/91	8,300	640 [a]	NA	2,800	370	490	760	ND	ND	43	
	07/91	6,600	890 [a]	NA	2,000	250	230	380	ND	ND	29	
	10/91	6,300	1,700 [a]	NA	2,000	410	330	550	ND	ND	27	
	01/92	4,000	790 [a]	NA	1,200	250	60	200	ND	ND	22	
	04/92	7,400	1,800 [a]	NA	730	370	180	640	ND	ND	19	
	07/92	3,000	2,400 [a]	NA	190	ND	2.8	410	ND	ND	30	
	10/92	5,000	970 [a]	NA	1,300	320	45	340	ND	ND	26	
	01/93	2,300	680 [a]	NA (2)	630	180	31	330	ND	ND	13	
	06/93	5,000	1,100 [a]	ND	730	240	43	380	ND	ND	13	

Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods											
		8015 Modified			8020				8010			Other
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
		µg/L			µg/L				µg/L			µg/L
MW4	11/89	ND	NA	NA	33	1.3	1	5.2	NA	NA	NA	Lead 12
	03/90	ND	NA	NA	7.4	2	2	1.1	ND	ND	ND	
	07/90	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9	
	10/90	ND	ND	ND	ND	ND	ND	ND	0.7	ND	0.5	
	01/91	80	ND	ND	9.2	2.4	1.7	0.7	ND	ND	ND	
	04/91	1,400	130 [a]	NA	2,200	72	ND	17	ND	ND	ND	
	07/91	130	ND	NA	14	3.3	9.7	ND	ND	ND	0.81	
	10/91	ND	ND	NA	5.3	1	ND	0.8	ND	ND	ND	
	01/92	ND	ND	NA	6.8	1.3	ND	ND	ND	ND	ND	
	04/92	780	130 [a]	NA	ND	51	ND	4.8	ND	ND	1.6	
	07/92	ND	ND	NA	ND	ND	ND	ND	ND	ND	1.3	
	10/92	100	ND	NA	9.5	ND	ND	2.6	ND	ND	ND	
	01/93	960	240 [a]	NA	200	41	4.6	9.4	ND	ND	1	
	06/93	650	140 [a]	ND	150	21	ND	ND	ND	ND	3.7	
MW5	10/90	9,600	1,900	ND	1,200	70	160	520	ND	ND	22	Lead 3
	01/91	10,000	1,200	ND	1,600	720	200	510	ND	ND	33	
	04/91	18,000	860 [a]	NA	2,500	550	580	500	ND	ND	61	
	07/91	15,000	2,200 [a]	NA	4,800	610	1,100	760	ND	ND	62	
	10/91	14,000	3,300 [a]	NA	5,000	530	820	800	ND	ND	49	
	01/92	12,000	1,900 [a]	NA	4,300	390	380	590	ND	ND	56	
	04/92	23,000	6,400 [a]	NA	8,600	ND	2,600	1,900	ND	ND	125	
	07/92	27,000	5,900 [a]	NA	6,000	ND	1,500	1,600	ND	ND	93	
	10/92	13,000	2,100 [a]	NA	4,600	140	470	550	ND	ND	59	
	01/93	18,000	1,900 [a]	NA	5,800	560	1,900	1,600	ND	ND	110	
	01/93	19,000	2,100 [a]	NA	4,600	370	1,600	1,400	ND	ND	120	
	06/93	22,000	2,900 [a]	ND	8,300	740	2,500	1,900	ND	ND	110	
	06/93	23,000	2,300 [a]	ND	9,600	730	3,000	1,900	ND	ND	110	

Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods										
		8015 Modified			8020				8010			Other
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
		µg/L			µg/L				µg/L			µg/L
MW6	10/90	27,000	4,700	ND	2,700	450	2,900	3,300	ND	ND	40	Lead 9
	01/91	7,200	1,600	ND	1,400	ND	200	830	ND	ND	23	
	04/91	17,000	800 [a]	NA	2,800	610	1,200	1,800	ND	ND	53	
	07/91	11,000	1,400 [a]	NA	1,200	ND	380	750	ND	ND	29	
	10/91	4,800	1,600 [a]	NA	380	69	340	730	ND	ND	22	
	01/92	6,100	1,200 [a]	NA	460	180	200	590	ND	ND	26	
	04/92	7,200	1,800 [a]	NA	340	350	460	920	ND	ND	30	
	07/92	8,600	1,700 [a]	NA	1,300	380	280	1,100	ND	ND	35	
	10/92	1,600	110 [a]	NA	230	70	20	88	ND	ND	24	
	01/93	13,000	2,100 [a]	NA	2,500	370	540	2,400	ND	ND	36	
	06/93	7,400	1,900 [a]	ND	1,500	480	120	1,400	ND	ND	29	
MW7	10/90	14,000	2,700	ND	390	ND	18	1,200	ND	1.3	14	Lead 11
	01/91	4,500	1,400	ND	320	42	48	350	ND	ND	10	
	04/91	2,400	NA	NA	320	77	62	130	ND	0.6	11	
	07/91	2,000	910 [a]	NA	470	ND	24	88	ND	ND	9.7	
	10/91	ND	370 [a]	NA	ND	ND	ND	ND	ND	0.68	4.5	
	01/92	1,100	290 [a]	NA	230	45	7	88	ND	3.5	6.4	
	04/92	1,700	520 [a]	NA	310	78	28	170	ND	0.5	3.2	
	07/92	1,900	590 [a]	NA	410	78	21	170	ND	2.1	8.7	
	07/92 (dup)	1,200	700 [a]	NA	21	1	2.6	90	ND	2	8.2	
	10/92	1,800	320 [a]	NA	410	31	11	75	ND	1	7.4	
	01/93	2,100	660 [a]	NA	390	100	21	270	ND	0.6	3.7	
	06/93	4,400	1,100 [a]	ND	830	330	49	620	ND	ND	8.6	

Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods										
		8015 Modified			8020				8010			
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	Other
		µg/L			µg/L				µg/L			µg/L
MW8	02/91	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
	04/91	ND	ND	NA	ND	ND	ND	ND	ND	0.5	ND	
	07/91	ND	ND	NA	ND	ND	2	ND	ND	1.2	ND	
	10/91	ND	ND	NA	ND	ND	0.6	ND	ND	0.4	ND	
	01/92	ND	ND	NA	ND	ND	ND	ND	ND	0.68	ND	
	04/92	ND	ND	NA	ND	ND	ND	ND	ND	0.8	ND	
	07/92	ND	ND	NA	ND	ND	3.3	ND	ND	1.6	ND	
	10/92	ND	ND	NA	ND	ND	ND	ND	ND	1.4	ND	
	01/93	ND	ND	NA	ND	ND	ND	ND	ND	0.8	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	
MW9	02/91	6,000	1,600	NA	180	19	170	200	ND	ND	13	
	04/91	4,200	410 [a]	NA	520	130	410	580	ND	ND	26	
	07/91	1,900	180 [a]	NA	190	12	52	77	ND	6.5	12	
	10/91	880	300 [a]	NA	160	31	44	83	ND	ND	10	
	01/92	380	120 [a]	NA	14	7.6	2.2	14	ND	ND	9.6	
	04/92	2,900	700 [a]	NA	510	80	260	260	ND	ND	11	
	07/92	4,400	1,300 [a]	NA	860	210	340	640	ND	ND	22	
	10/92	200	290 [a]	NA	6.8	1.4	2.1	7.8	ND	ND	12	
	01/93	8,500	740 [a]	NA	2,400	390	620	1,500	ND	ND	29	
	06/93	8,200	1,300 [a]	ND	2,400	360	460	1,500	ND	ND	29	
MW10	01/92	13,000	3,700 [a]	NA	130	580	110	3,000	ND	ND	33	
	05/92	15,000	5,000 [a]	NA	180	ND	18	2,700	ND	ND	20	
	05/92 (dup)	13,000	7,500 [a]	NA	240	490	65	2,500	ND	ND	22	
	07/92	8,100	4,400 [a]	NA	74	360	ND	1,100	ND	ND	29	
	10/92	3,200	1,500 [a]	NA	ND	ND	ND	320	ND	ND	25	
	01/93	7,500	2,200 [a]	NA	130	170	20	710	ND	ND	18	
	06/93	8,000	2,100 [a]	ND	69	7.9	ND	490	ND	ND	16	

Table 2
Summary of Historical Groundwater Analytical Data
Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods: 8015 Modified TPH-G (µg/L)	8015 Modified TPH-D (µg/L)	8015 Modified TPH-MO (µg/L)	8020 Benzene (µg/L)	8020 Ethylbenzene (µg/L)	8020 Toluene (µg/L)	8020 Total Xylenes (µg/L)	8010 TCE (µg/L)	8010 PCE (µg/L)	8010 1,2-DCA (µg/L)	Other (µg/L)
MW11	01/92	8,200	3,200 [a]	NA	23	250	ND	1,100	ND	ND	ND	
	04/92	160	1,200 [a]	NA	ND	ND	ND	ND	ND	ND	ND	
	07/92	2,100	710 [a]	NA	39	100	2.3	53	ND	ND	ND	
	10/92	660	220 [a]	NA	2.9	19	ND	3.8	ND	ND	ND	
	10/92	770	230 [a]	NA	3.2	26	ND	5.7	ND	ND	ND	
	01/93	780	370 [a]	NA	10	2.1	ND	39	ND	ND	ND	
	06/93	2,500	160 [a]	ND	27	99	ND	34	ND	ND	ND	
MW12	12/92	2,800	1,700 [a]	NA	14	ND	ND	ND	ND	ND	ND	
	06/93	1,100	750 [a]	ND	19	21	ND	57	ND	ND	ND	
B1	01/93	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
F3	02/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Well Abandoned	12/89	1,800	NA	NA	200	24	18	34	ND	ND	0.15	Lead 2,100
Average [b]		8,665	1,883	250	1,562	235	517	871	0.21	0.41	24.8	
Laboratory Detection Limit		50	50	500	0.5	0.5	0.5	0.5	0.4	0.4	0.4	

Notes:

a) The detection for petroleum hydrocarbons as diesel appears to be due to the presence of lighter hydrocarbons rather than diesel.
b) Average of sampled data, ND equals 1/2 detection limit.
µg/L - Micrograms per liter is approximately equivalent to parts per billion, depending on density of water.
NA - Not analyzed.
ND - Not detected.
TPH-G - Total petroleum hydrocarbons quantified as gasoline.
TPH-D - Total petroleum hydrocarbons quantified as diesel.
TPH-MO - Total petroleum hydrocarbons quantified as motor oil.
TCE - Trichloroethylene.
PCE - Tetrachloroethylene.
1,2-DCA - 1,2-Dichloroethane.

AGI TECHNOLOGIES

Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW3	07/28/94	7,700	970 [a]	1,800	810	ND	600	22	ND	ND
	10/21/94	7,400	810	1,900	900	37	780	25	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW4	07/28/94	120	ND	7.9	0.7	1.1	ND	ND	ND	ND
	10/21/94	69	ND	3.4	ND	ND	ND	ND	ND	ND
	09/15/95	110	ND	2.5	ND	0.85	ND	2.3	ND	ND
	03/14/96	300	69 [b]	3.3	0.74	ND	ND	1.6	ND	ND
	09/26/96	ND	ND	ND	ND	ND	ND	1.2	ND	ND
MW5	07/29/94	30,000	2,200 [a]	9,300	1,100	1,800	2,300	110	ND	ND
	10/21/94	23,000	1,500	7,900	780	1,500	2,900	85	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW6	07/29/94	15,000	2,100 [b]	3,100	1,100	71	2,000	37	ND	ND
	10/21/94	18,000	1,500	3,900	1,200	170	3,200	35	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW7	07/29/94	2,600	530 [c]	470	220	ND	310	2.7	6	ND
	10/21/94	1,700	280	290	140	4.5	240	1.8	0.74	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS

AGI TECHNOLOGIES

Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

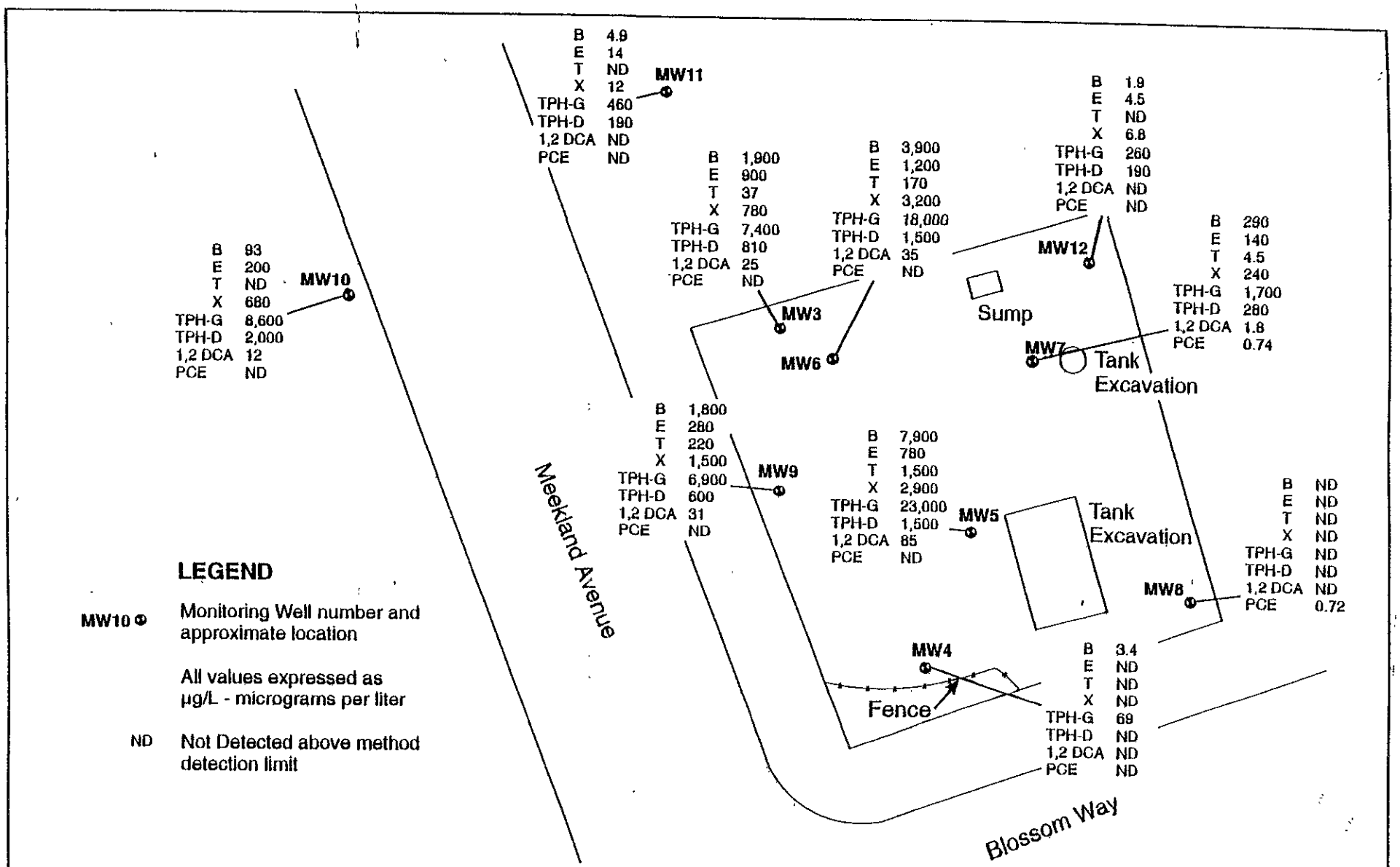
Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW8	07/28/94	ND	78 [a]	ND	ND	ND	ND	ND	ND	ND
	10/21/94	ND	ND	ND	ND	ND	ND	ND	0.72	ND
	09/15/95	ND	ND	ND	ND	ND	ND	ND	0.74	ND
	03/14/96	ND	ND	ND	ND	ND	ND	ND	0.63	ND
	09/26/96	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW9	07/28/94	6,000	1,300 [c]	90	170	27	370	26	ND	ND
	10/21/94	6,900	600	1,800	280	220	1,500	31	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW10	07/28/94	6,700	2,000 [c]	99	180	57	430	13	ND	ND
	10/21/94	8,600	2,000	93	200	ND	680	12	ND	ND
	09/15/95	2,100	1,900	9.9	49	ND	4.9	ND	ND	ND
	03/14/96	6,800	2,000 [b]	64	98	ND	33	6.5	ND	ND
	09/26/96	7,100	420	140	210	ND	32	9.1	ND	5.9
MW11	07/28/94	450	150 [a]	8.2	20	1.1	6.6	ND	ND	ND
	10/21/94	460	190	4.9	14	ND	12	ND	ND	ND
	09/15/95	9,600	550	130	180	ND	130	8.8	ND	5.6
	03/15/96	780	310 [b]	0.74	25	ND	1.8	ND	ND	ND
	09/26/96	480	710	ND	50	ND	ND	ND	ND	ND

Table 2
Summary of Groundwater Chemical Analyses
Harbert Transportation/Meekland Avenue
Hayward, California

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW12	07/28/94	240	160	1.9	12	ND	5.8	ND	ND	ND
	10/21/94	260	190	1.9	4.5	ND	6.8	ND	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
Method Detection Limit		50	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Notes:

a) Hydrocarbons quantified as diesel are primarily due to discrete peaks not indicative of diesel fuel.
b) Hydrocarbons quantified as diesel are primarily due to the presence of a lighter petroleum product (C_8-C_{12}), possibly gasoline.
c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product (C_8-C_{12}) and discrete peaks not indicative of diesel fuel.
1,2-DCE - 1,2-dichloroethane.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
ND - Not detected at or above method detection limit.
NS - Not sampled.
TPH-Gasoline - Total petroleum hydrocarbons quantified as gasoline.
TPH-Diesel - Total petroleum hydrocarbons quantified as diesel.
µg/L - Micrograms per liter, equivalent to parts per billion.



10.20.94

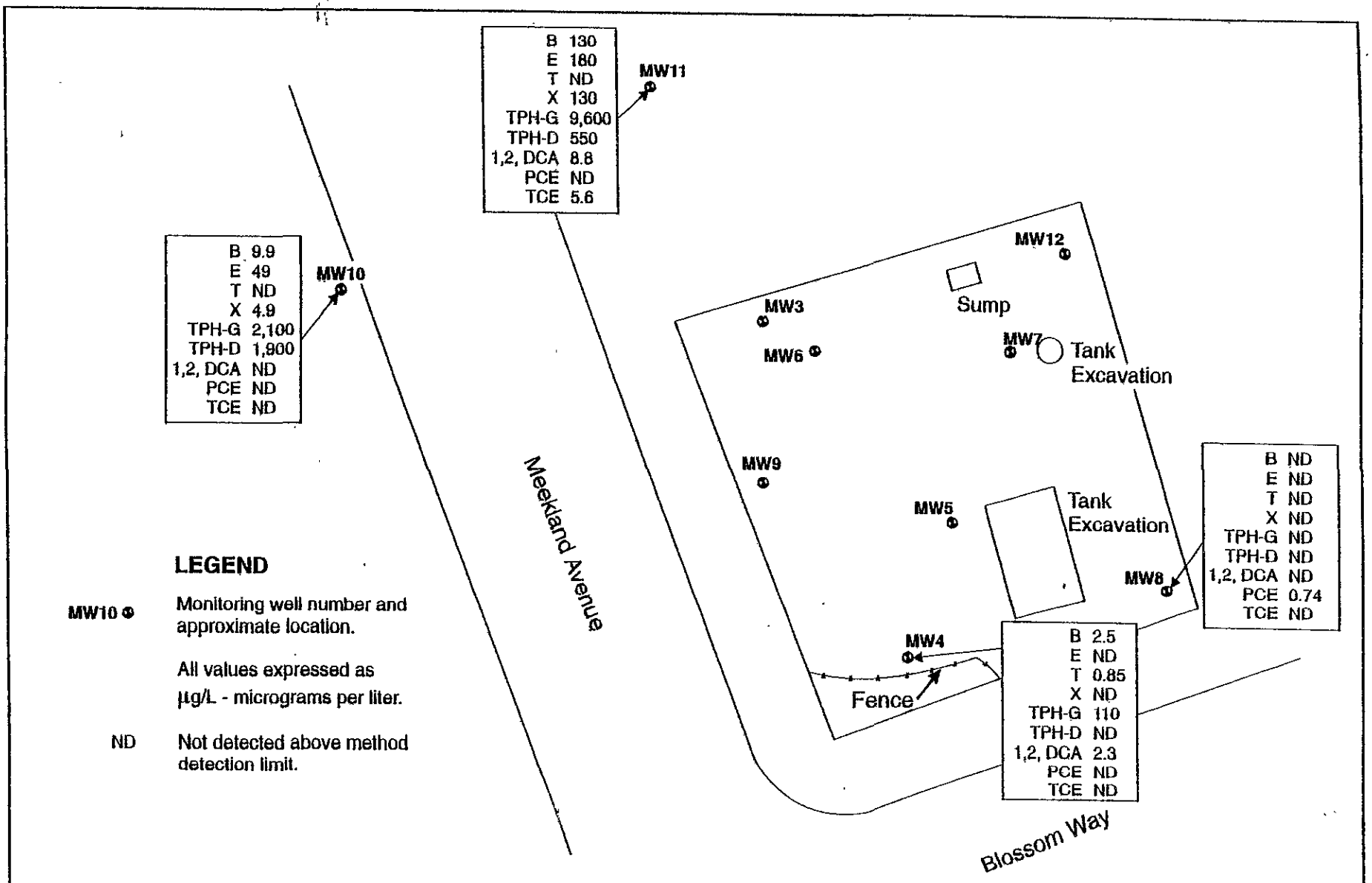
AGI TECHNOLOGIES

Site Plan

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
siteplan.cdr	15,833.002	DFF/ALW	01 February 95		



AGI TECHNOLOGIES

Groundwater Chemical Analysis Results - 9/15/95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
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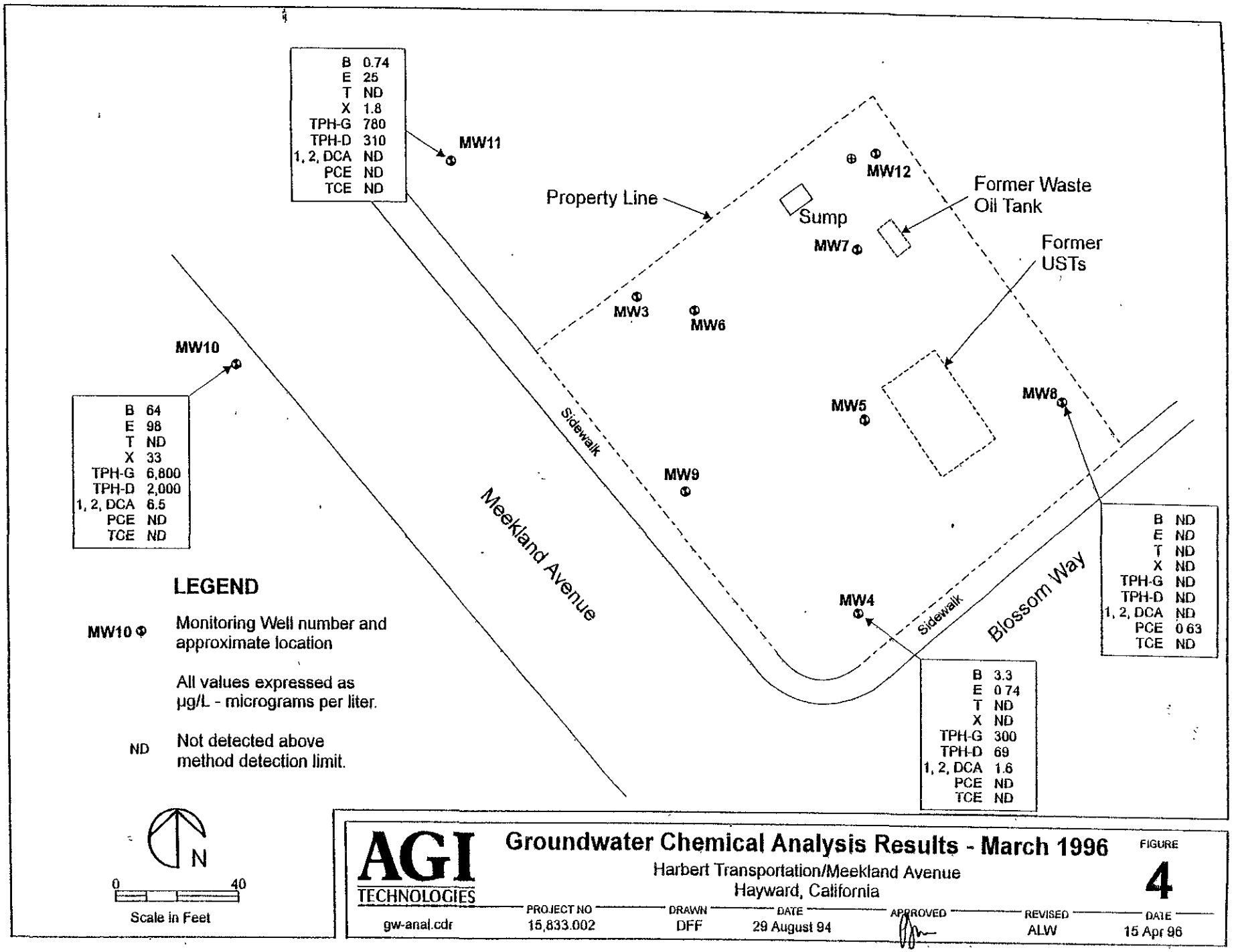

AGI TECHNOLOGIES

Groundwater Chemical Analysis Results - March 1996

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
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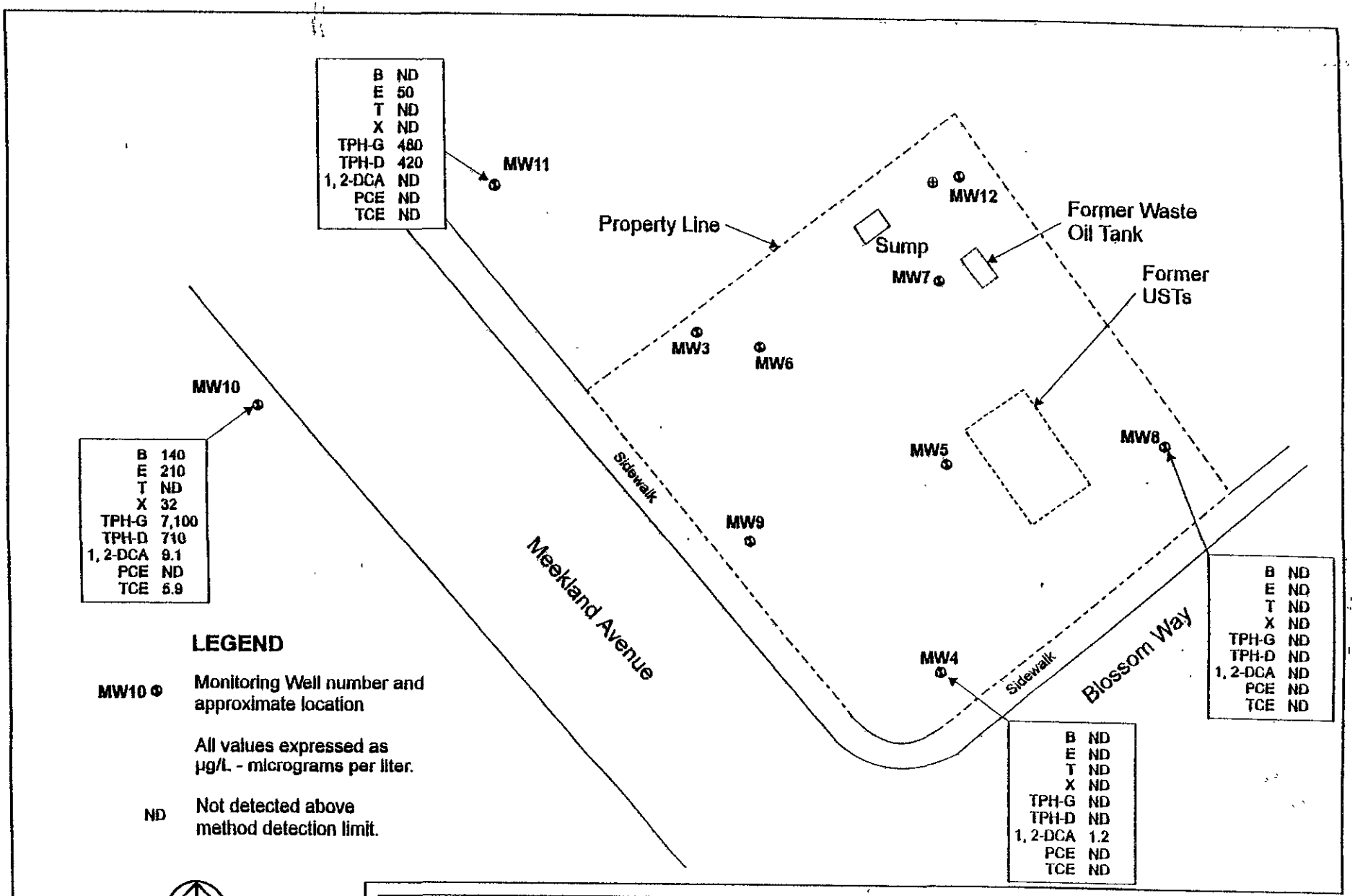

Groundwater Chemical Analysis Results - September 1996

FIGURE 4

AGI TECHNOLOGIES

Harbert Transportation/Meekland Avenue
Hayward, California

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
gw-anal.cdr	15,833.002	DFF	29 August 94	ALW	15 Apr 96