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# Letter of Transmittal

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

**from:** Joe Hayes

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

**date:** October 14, 2004

| *Number of Copies* | *Date of Documents* | *Description* |
|---|---|---|
| 1 | October 14, 2004 | ***Semi - Annual Groundwater Monitoring Report Third Quarter 2004*** |

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October 14, 2004
Project H9042.Q

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

**Subject:** **Semi - Annual Groundwater Monitoring Report - Third Quarter 2004**
Harbert Transportation
19984 Meekland Avenue, Hayward, California

Dear Mr. Harbert:

This report describes groundwater monitoring activities conducted by Weber, Hayes and Associates (WHA) at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California, during the third quarter 2004.

This former tank site was recommended for regulatory closure by WHA in August 2003, due to completed remediation action and low residual concentrations of hydrocarbons. Alameda County requested additional information and a restart of semi-annual groundwater monitoring in a letter dated May 13, 2004. WHA submitted a revised Site Conceptual Model, and a Workplan for additional investigation dated July 30, 20004, including:

| | |
|---|---|
| Task 1: | Pre-field Activities |
| Task 2: | Department of Water Resources (DWR) ½ Mile Well Radius Search |
| Task 3: | Field Verification of Wells: Permitted and Un-permitted |
| Task 4: | Site Survey |
| Task 5: | Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone |
| Task 6: | Confirmation Groundwater Grab Sampling at Downgradient Property Line |
| Task 7: | Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004 |
| Task 8: | Reporting of Tasks 1 through 7 |

We are awaiting Alameda County review and response to this workplan, so we can proceed. Meanwhile, we have restarted the semi-annual groundwater monitoring and reporting, as requested in Alameda County letter dated May 13, 2004.

## EXECUTIVE SUMMARY

The groundwater monitoring event for the third quarter 2004 took place on September 23, 2004. Groundwater elevations at the site fell an average of approximately 1.72 feet since the last time groundwater monitoring activities were performed at the site (June, 2003). The calculated groundwater flow direction on September 23, 2004 was to the southwest, which is generally consistent with historical data. Groundwater analytical results from the third quarter 2004 indicate that dissolved PHC concentrations fluctuated somewhat; they increased in on-site wells MW-5 and MW-6, and decreased in off-site well MW-10. **Dissolved PHC concentrations in all off-site wells**

**remained non-detect or well below Alameda County's recommended cleanup goals for off-site plume migration.**

**Methyl - tert - Butyl Ether (MTBE) was not detected in any of the groundwater samples collected this quarter. MTBE has not been detected in soil or groundwater at the site.** Groundwater samples were analyzed for the fuel oxygenates Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether this quarter. No fuel oxygenates were detected in these groundwater samples.

As per the revised sampling schedule issued by Environmental Health in their letter dated May 13, 2004, all groundwater samples were analyzed for the lead scavengers 1,2 Dichloroethane, and 1,2 Dibromoethane. **Neither of these constituents were detected in any of the groundwater samples collected from the site this quarter. No further sampling for these compounds is planned.**

At this time, we recommend continuing semi-annual groundwater monitoring at the site according to the revised schedule issued by AC Environmental Health in their letter dated May 13, 2004, while waiting for approval of our Workplan of July 30, 2004, on site closure.

## INTRODUCTION

This report documents groundwater monitoring activities at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California (the site), during the third quarter 2004. This report has been prepared pursuant to a directive from the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health, May 13, 2004) regarding a release of petroleum hydrocarbons (PHCs) from underground storage tanks (USTs) at the site.

The current sampling schedule is:

| | |
|---|---|
| Semi-Annually | All Monitoring Wells, MW-3 - 12 (First & Third Quarter's) |

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 Screening for contaminants at the site were based on residential land use. Residual concentrations of PHCs are below the residential Risk-Based Screening Levels, so no formal land use restrictions are necessary to protect human health (see below).

**Summary of Site Investigations**

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 indicates the other two monitoring wells were properly destroyed. 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 until the third quarter of 2003. Groundwater sampling at the site has remained inactive post second quarter 2003 sampling. This quarter represents the first round of sampling since June 23, 2003. **Analytical data from the previous and current groundwater monitoring program indicate that shallow groundwater at the site has been impacted by PHCs. However, neither Methyl tert Butyl Ether (MTBE), other fuel oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether), nor lead scavengers (1,2 Dichloroethane, and 1,2 Dibromoethane) 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 first quarter 2002 we recommend that the frequency of sampling in monitoring well MW-7 be reduced to semi-annually (second and fourth quarters) and that the frequency of sampling in monitoring wells MW-4, 8, 11 and 12 be reduced to annually (fourth quarter only). Alameda County Environmental Health concurred with our recommendations in a telephone conversation on July 29, 2002.

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.* The site specific cleanup goals are summarized below.

Comparison of Site Specific Cleanup Goals/Tier 1 RBSLs 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 | 100 mg/kg | 0.045 mg/kg | 2.6 mg/kg | 2.5 mg/kg | 1.0 mg/kg |
| Groundwater Cleanup Goal | 5,000 - 50,000 µg/L | 5,800 µg/L | 530,000 µg/L | 170,000 µg/L | 150,000 µg/L |

Comparison of the site-specific cleanup goals 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 did not pose a threat to human health. 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 did not pose a threat to human health.

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 1/2 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.). 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.

In the second quarter 2003, we recommended closing the fuel leak case at this site in our report dated August 22, 2003, *Fuel Leak Case Closure Request - Groundwater Monitoring Report - Second Quarter 2003*. Our request was ultimately denied by the Alameda County Environmental Health Department in their letter dated May 13, 2004. At their request, a semi-annual groundwater monitoring schedule was re-instated for this site.

## GROUNDWATER MONITORING - THIRD QUARTER 2004

The groundwater monitoring event for the third quarter 2004 took place on September 23, 2004. Field methods followed Weber, Hayes and Associates' standard field methodology for groundwater monitoring, which is described in Appendix A. Field data forms are also presented in Appendix A. Groundwater samples were collected from all site monitoring wells in accordance with directives from Environmental Health dated May 13, 2004, and analyzed for Total Petroleum Hydrocarbons as

gasoline (TPH-g) by EPA Method GC/MS, and benzene, toluene, ethylbenzene, and xylenes (BTEX), Methyl tert Butyl Ether (MTBE), Fuel Oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, tertiary Amyl Methyl Ether, and Ethanol) and Lead Scavengers (1,2 Dichloroethane, and 1,2 Dibromoethane) by EPA Method 8260.

**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 1.72 feet since the previous sampling event (June 2003). Calculated groundwater elevations from the gauging data collected on September 23, 2004 are shown on Figure 2. Data from this quarter indicate that groundwater flow is to the southwest (see Figure 2). The calculated groundwater gradient on September 23, 2004 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. See Table 1for a summary of previous depth to groundwater data.

**Groundwater Analytical Results**

Groundwater samples were collected from all of the ten monitoring wells associated with the site this quarter, in accordance with the directive from Environmental Health dated May 13, 2004. The groundwater analytical results for this quarter are summarized below.

Summary of Petroleum Hydrocabon Groundwater Sample Analytical Results, September 23, 2004 (µg/L, ppb)

| Well ID | TPH-g | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE |
|---|---|---|---|---|---|---|
| MW-3 | 160 | ND | ND | 2.9 | ND | ND |
| MW-4 | ND | ND | ND | ND | ND | ND |
| MW-5 | 7,000 | 470 | 86 | 1,000 | 2,200 | < 6 |
| MW-6 | 4,400 | < 2.5 | < 2.5 | 350 | 79 | < 1.5 |
| MW-7 | ND | ND | ND | 0.73 | ND | ND |
| MW-8 | ND | ND | ND | ND | ND | ND |
| MW-9 | 1,900 | < 2.5 | < 2.5 | 230 | 180 | < 1.5 |
| MW-10 | 600 | ND | ND | ND | ND | ND |
| MW-11 | ND | ND | ND | ND | ND | ND |
| MW-12 | ND | ND | ND | ND | ND | ND |
| PQLs | 25 | 0.5 | 0.5 | 0.5 | 1 | 1 |
| AL/MCL | 1,000 | 1 | 150 | 700 | 1,750 | 5 |
| * ACEH Proposed Cleanup Goals | 10,000 | 10 | 1,500 | 7,000 | 17,500 | 50 |

* = As per the Alameda County Environmental Health letter dated May 13, 2004, the proposed cleanup goals reflect a maximum contaminant concentration that may migrate off-site. A goal of 10x the AL/MCL is considered a reasonable goal by Environmental Health.

The concentration of benzene in well MW-5 exceeded the groundwater quality goal/drinking water MCL of 1 part per billion (ppb). Well MW-5 was the only well to be impacted with benzene this quarter.

The concentrations of TPH-g in wells MW-5, 6, and 9 exceed the respective groundwater quality goal/drinking water Action Level (AL) / Maximum Contaminant Level (MCL) of 1000 ppb, but were all below the Environmental Health proposed cleanup goal (10X AL).

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.**

Environmental Health considered reasonable proposed cleanup goals for contaminants that may migrate off-site to be no greater than 10 times that of the contaminants respective MCL (ACEH letter dated May 13, 2004). **No offsite wells exhibited contaminant concentrations that exceeded their respective MCLs, nor did any of the down-gradient on-site monitoring wells exceed Alameda County's " proposed cleanup goals".**

Analytical results for the groundwater samples collected by Weber, Hayes and Associates since the third quarter 2000 are summarized in Table 1. 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 B. 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 C (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 1.72 feet since the previous sampling event (June 2003).
- The groundwater flow direction on September 23 was to the southwest at a gradient of approximately 0.002 feet per foot. This direction is in general agreement with data collected by us and previous data collected by others at the site.
- Concentrations of dissolved PHCs in on-site monitoring wells MW-5, and 6 increased slightly compared to when they were last sampled on June 23, 2003.
- Concentrations of on-site wells MW-3, and 9 decreased slightly compared to when they were last sampled on June 23, 2003.

- Concentrations of dissolved PHCs in off-site monitoring well MW-10 decreased compared to when it was last sampled on June 23, 2003, while all other off-site wells remained non-detect for PHCs.

- **MTBE was not detected in any of the groundwater samples collected this quarter.**

- TPH-g was detected at a concentration above 1000 ppb in on-site wells MW-5, 6, and 9, yet remain below the ACEH proposed cleanup goals.

- Benzene was detected at a concentration above the drinking water MCL in well MW-5 only. No other detections of were present in groundwater collected this quarter.

- Fuel Oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, tertiary Amyl Methyl Ether, and Ethanol), and Lead Scavengers (1,2 Dichloroethane, and 1,2 Dibromoethane) were not detected in any groundwater samples collected this quarter.

- 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.

## RECOMMENDATIONS

At this time we recommend:

- Continuing semi-annual groundwater monitoring as per the revised monitoring and reporting schedule directed by Alameda County Environmental Health Services letter dated May 13, 2004,

- Upon approval by AC Environmental Health, complete our workplan dated July 30, 2004.

- Obtain regulatory closure.

## SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER

The following activities are scheduled for the first quarter 2005:

- Semi-annual groundwater monitoring according to the schedule directed by Environmental Health. Groundwater monitoring will include measuring the depth-to-groundwater, dissolved oxygen concentration, and physical parameters, and collecting samples from the appropriate monitoring wells and analyzing the for Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method GC/MS, and benzene, toluene, ethylbenzene, and xylenes (BTEX), Methyl

tert Butyl Ether (MTBE), and Fuel Oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, tertiary Amyl Methyl Ether, and Ethanol) by EPA Method 8260

## 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:_____
Patrick Hoban
Senior Geologist

REGISTERED GEOLOGIST
JOSEPH P. HAYES
No. 1029
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

And:_____
Joseph Hayes
Certified Hydrogeologist #373

**Attachments**

| | |
|---|---|
| Table 1 | Summary of Groundwater Elevation and PHC Analytical Data |
| Figure 1 | Location Map |
| Figure 2 | Site Plan with Groundwater Elevations |
| Figure 3 | Site Plan with PHC Concentrations in Groundwater |
| Figure 4 | Site Plan with Extent of TPH-g and Benzene in Groundwater |
| Figure 5 | Site Plan with Dissolved Oxygen Contours |
| Figure 6 | TPH-g and Groundwater Elevation MW-5 and MW-9 |
| Figure 7 | Benzene and Groundwater Elevation MW-5 and MW-9 |

Appendix A Field Methodology for Groundwater Monitoring and Field Data Forms
Appendix B Certified Analytical Report - Groundwater Samples
Appendix C Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.

c: Ms. Bob Schulze, Alameda County Environmental Health
Mr. Jeff Lawson
Ms. Laurie Berger
Mr. Gregg Petersen, Durham Transportation
Mr. Roger Brewer, CRWQCB-San Francisco Bay Region

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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*

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*

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## Table 1: 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 | | | | | | | | Lead Scavengers | | | |
| Well I.D. | TOC Elevation (feet, MGVD) | 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) | TBA (ug/L) | Ethanol (ug/L) | Fuel Oxygenates (ug/L) | 1,2-DCA (ug/L) | EDB (ug/L) | Dissolved Oxygen (mg/L) | Redox Potential (ORP) (mV) |
| MW-3 | 55.44 | 20 - 40? ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 24 26 | 31 18 | 160 | ND | ND | 2.9 | ND | ND | ND | ND | ND | ND | ND | 0 39 | 112 |
| | | | 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 98 | 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 | 780 | 4 4 | 2 4 | 52 | 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? ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 24 47 | 31 24 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 94 | 297 |
| | | | 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 ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 24 79 | 31 24 | 7,000 | 470 | 86 | 1 000 | 2,200 | < 6 | < 200 | < 2 000 | < 100 | < 10 | < 10 | 0 20 | 64 |
| | | | 06/24/03 | 23 08 | 32 95 | 3,800 | 100 | 58 | 310 | 870 | < 1 5* | -- | -- | -- | -- | -- | 0 05 | -87 |
| | | | 03/21/03 | 22 99 | 33 04 | 4,800 | 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 | 380 | 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 | 280 | 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 ▲ | | | | | | | | | | | | | | | | |
| | | | 08/23/04 | 24 81 | 31 20 | 4,400 | < 2 5 | < 2.5 | 350 | 79 | < 1 5 | < 50 | < 500 | < 25 | < 2 5 | < 2 5 | 0 16 | 34 |
| | | | 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 | 6.6 | 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 1: 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 | | | | | | | | Lead Scavengers | | | |
| 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) | TBA (ug/L) | Ethanol (ug/L) | Fuel Oxygenates (ug/L) | 1,2-DCA (ug/L) | EDB (ug/L) | Dissolved Oxygen (mg/L) | Redox Potential (ORP) (mV) |
| MW-7 | 56.56 | 25 - 45 ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 25.38 | 31.28 | ND | ND | ND | 0.73 | ND | ND | ND | ND | ND | ND | ND | 0.90 | 301 |
| | | | 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 | -- |
| | | | 06/29/01 | 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 | 6.5 | 11 | ND | ND | -- | -- | ND | -- | -- | 0.5 | -- |
| MW-8 | 56.16 | 20 - 40 ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 24.81 | 31.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.92 | 301 |
| | | | 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 | 23.62 | 32.54 | 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 ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 24.00 | 31.21 | 1,900 | < 2.5 | < 2.5 | 230 | 180 | < 1.5 | < 50 | < 500 | < 25 | < 2.5 | < 2.5 | 0.26 | 190 |
| | | | 06/24/03 | 22.30 | 32.91 | 2,900 | 25 | 9.1 | 230 | 270 | < 1.5* | -- | -- | -- | -- | -- | 0.06 | -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 ▲ | | | | | | | | | | | | | | | | |
| | | | 09/23/04 | 23.81 | 30.93 | 600 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.63 | 160 |
| | | | 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 | 8.9 | 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 1: 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well I.D. | TOC Elevation (feet, NGVD) | Screen Interval (feet, bgs) | Date Sampled | Depth to Groundwater (feet, TOC) | Groundwater Elevation (feet, NGVD) | Total Petroleum Hydrocarbons | Volatile Organic Compounds | | | | | | | | Lead Scavengers | | Dissolved Oxygen | Redox Potential (ORP) |
| | | | | | | Gasoline (ug/L) | Benzene (ug/L) | Toluene (ug/L) | Ethylbenzene (ug/L) | Xylenes (ug/L) | MTBE (ug/L) | TBA (ug/L) | Ethanol (ug/L) | Fuel Oxygenates (ug/L) | 1,2-DCA (ug/L) | EDB (ug/L) | (mg/L) | (mV) |
| MW-11 | 55 20 | 25 - 40 ▲ | 09/23/04 | 24 04 | 31 16 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 50 | 301 |
| | | | 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 67 | 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 ▲ | 09/23/04 | 25 16 | 31 33 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 92 | 298 |
| | | | 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: | | | | | | 25 / 50 | 0.5 | 0.5 | 0.5 | 1 | 1 | 10 | 100 | 5 | 0.5 | 0.5 | -- | -- |
| Maximum Contaminant Levels (MCLs) / Action Levels (ALs) | | | | | | 1,000 | 1 | 150 | 700 | 1,750 | ****5 | ***12 | -- | -- | 0.5 | 0.5 | -- | -- |
| ♦ ACEH Proposed Cleanup Goals | | | | | | 10,000 | 10 | 1,500 | 7,000 | 17,500 | 50 | 120 | NA | NA | 5 | 5 | -- | -- |

*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)*

*1,2-DCA = 1,2-Dichloroethane*

*EDB= 1 2-Dibromoethane*

*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*

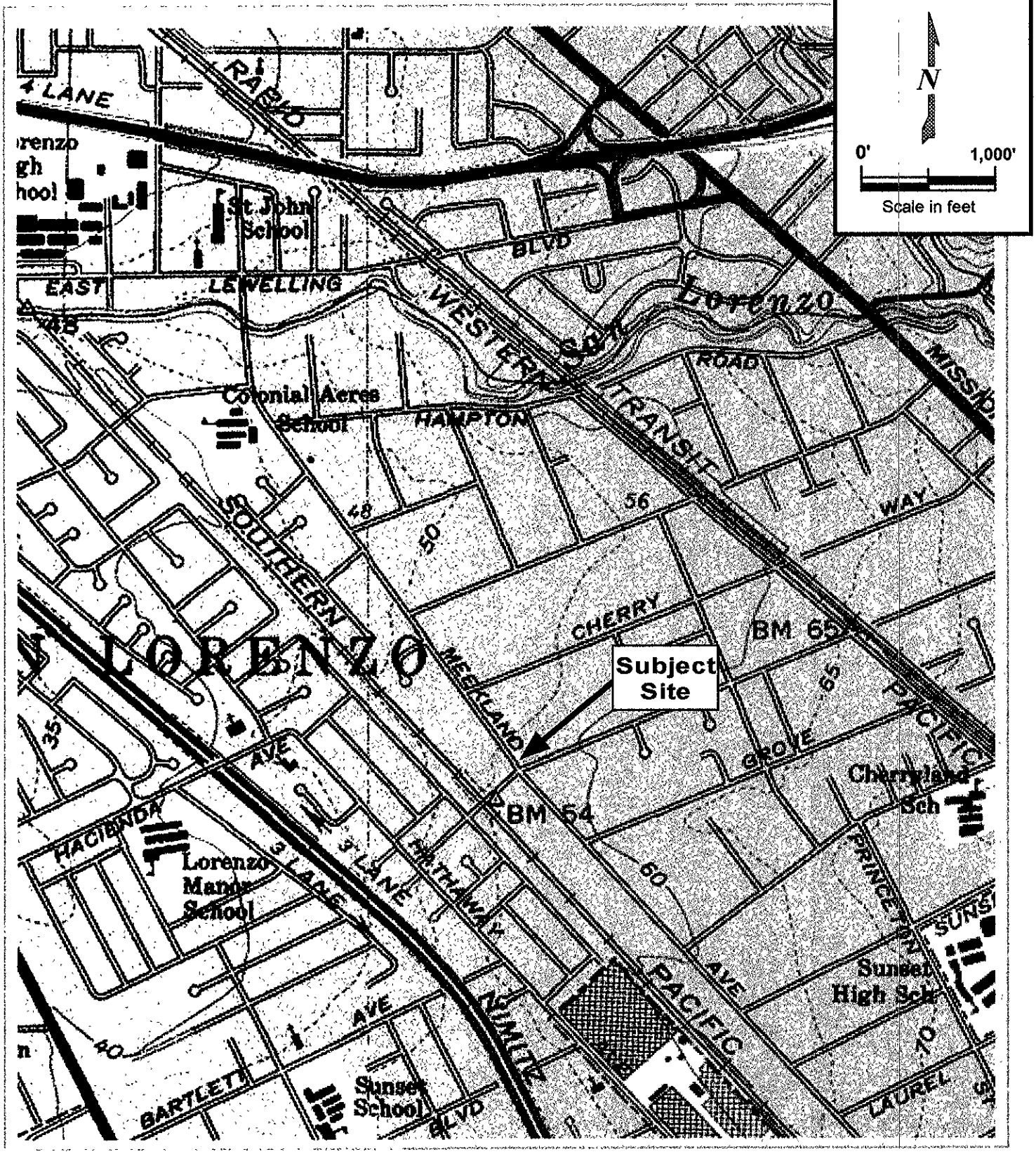
*** = Action Level *** = Secondary MCL / water quality goal*

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

*▲= Groundwater samples collected on September 23, 2004 have all been analyzed by EPA Method GC - MS / 8260B. This analytical method is more accurate and as a result the laboratory's Practical Quantitation Limit for TPH-g is 25 ppb*

*♦ = As per the Alameda County Environmental Health letter dated May 13, 2004 the proposed cleanup goals reflect a maximum contaminant concentration that may migrate beyond the boundries of the subject site*

*A goal of 10 X the MCL is considered a reasonable goal by the Alameda County Environmental Health Department.*




ajob\h9042\figures\F1-loc.CNV

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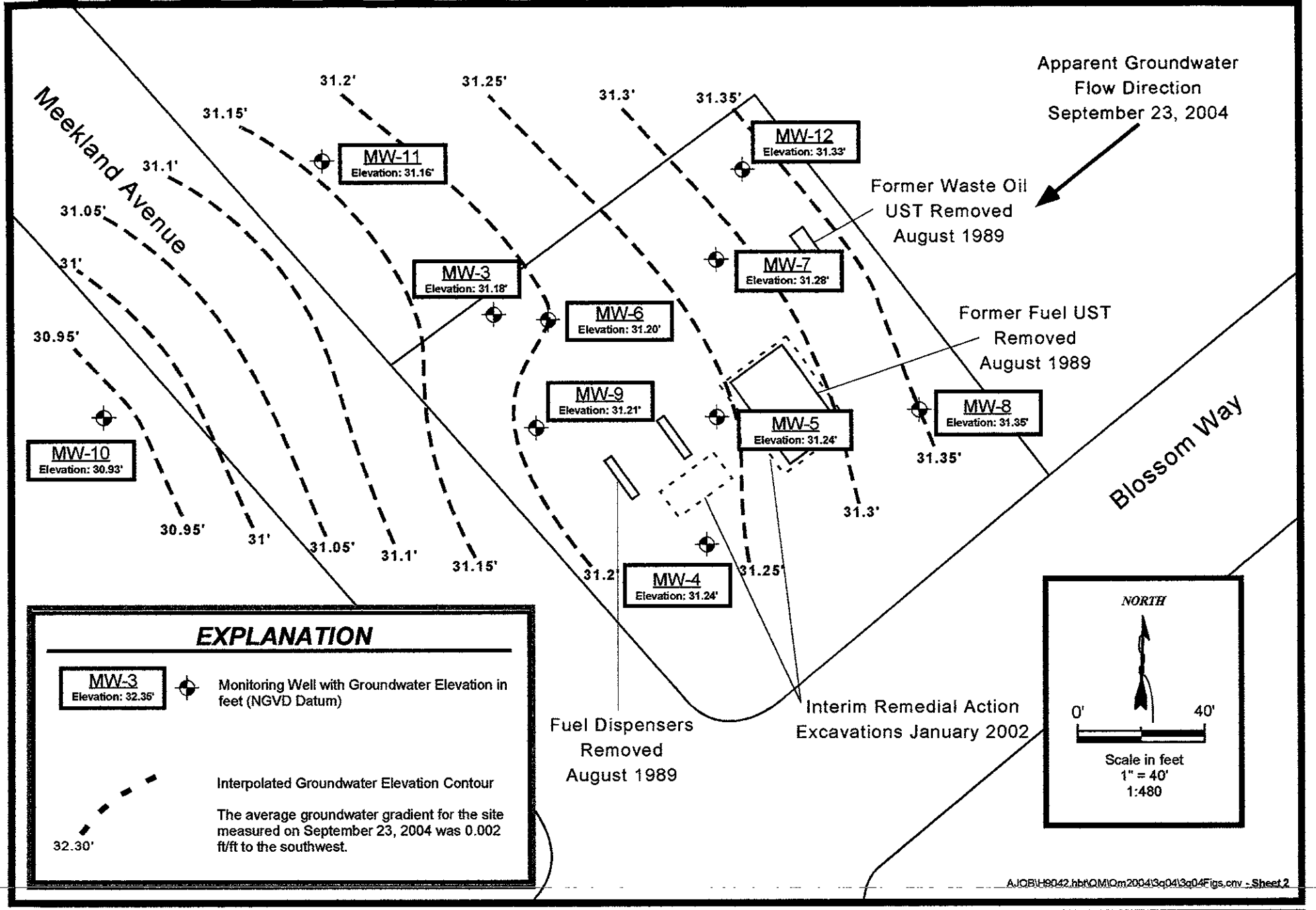
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

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

**Figure 1**
**Job # H9042**

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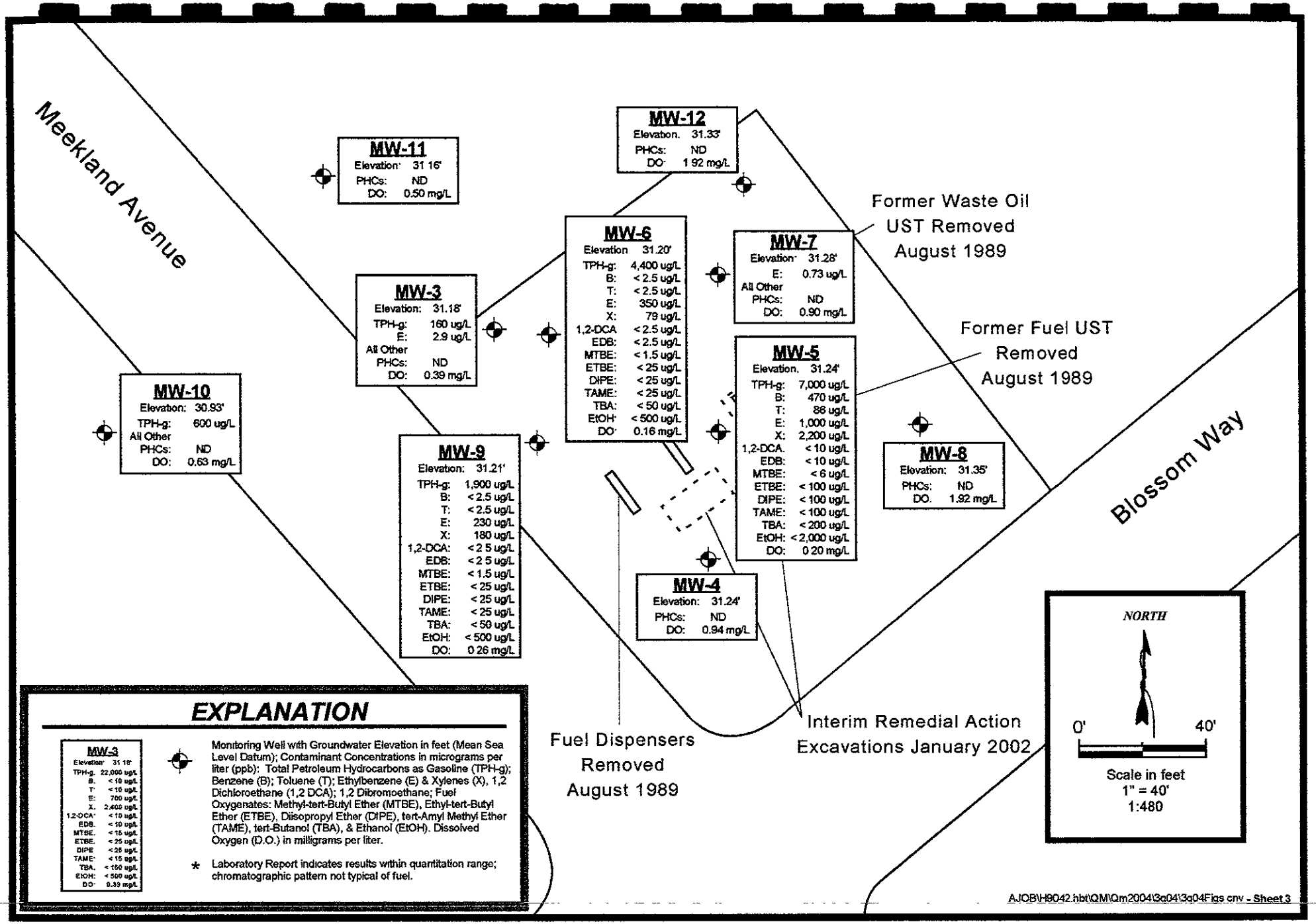
**Site Plan with Groundwater Elevations**
**September 23, 2004**
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

**Figure 2**
**Project H9042**




AJOB\H9042.hbt\QM\Qm2004\3q04\3q04Figs.cnv - Sheet 3

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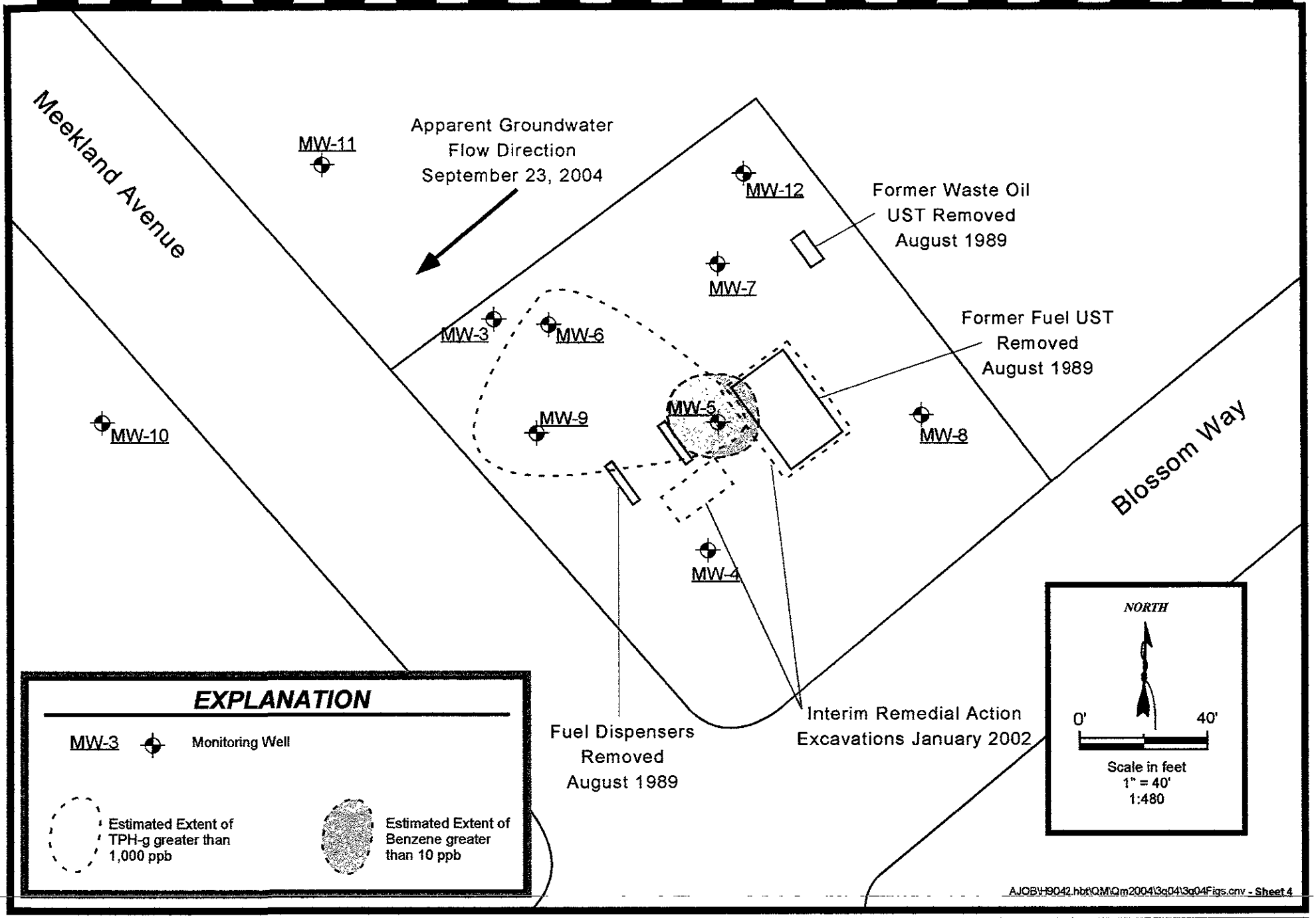
**Site Plan with PHC Concentrations in Groundwater**
**September 23, 2004**
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

**Figure 3**
**Project H9042**

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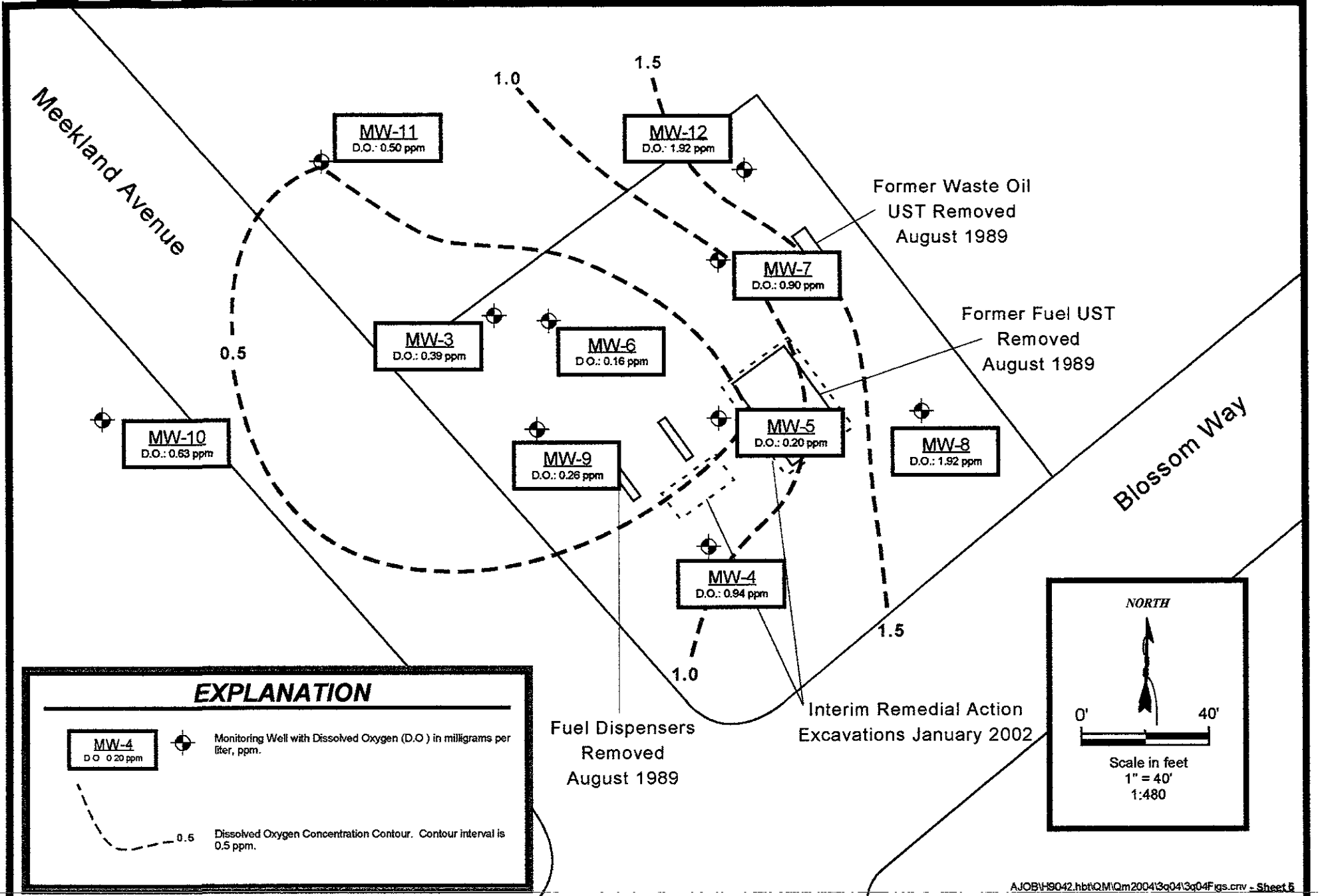
**Site Plan with Extent of TPH-g and Benzene in Groundwater, September 23, 2003**
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

**Figure 4**
**Project H9042**




AJOB\H9042.hbt\QM\Qm2004\3q04\3q04Figs.cnv - Sheet 5

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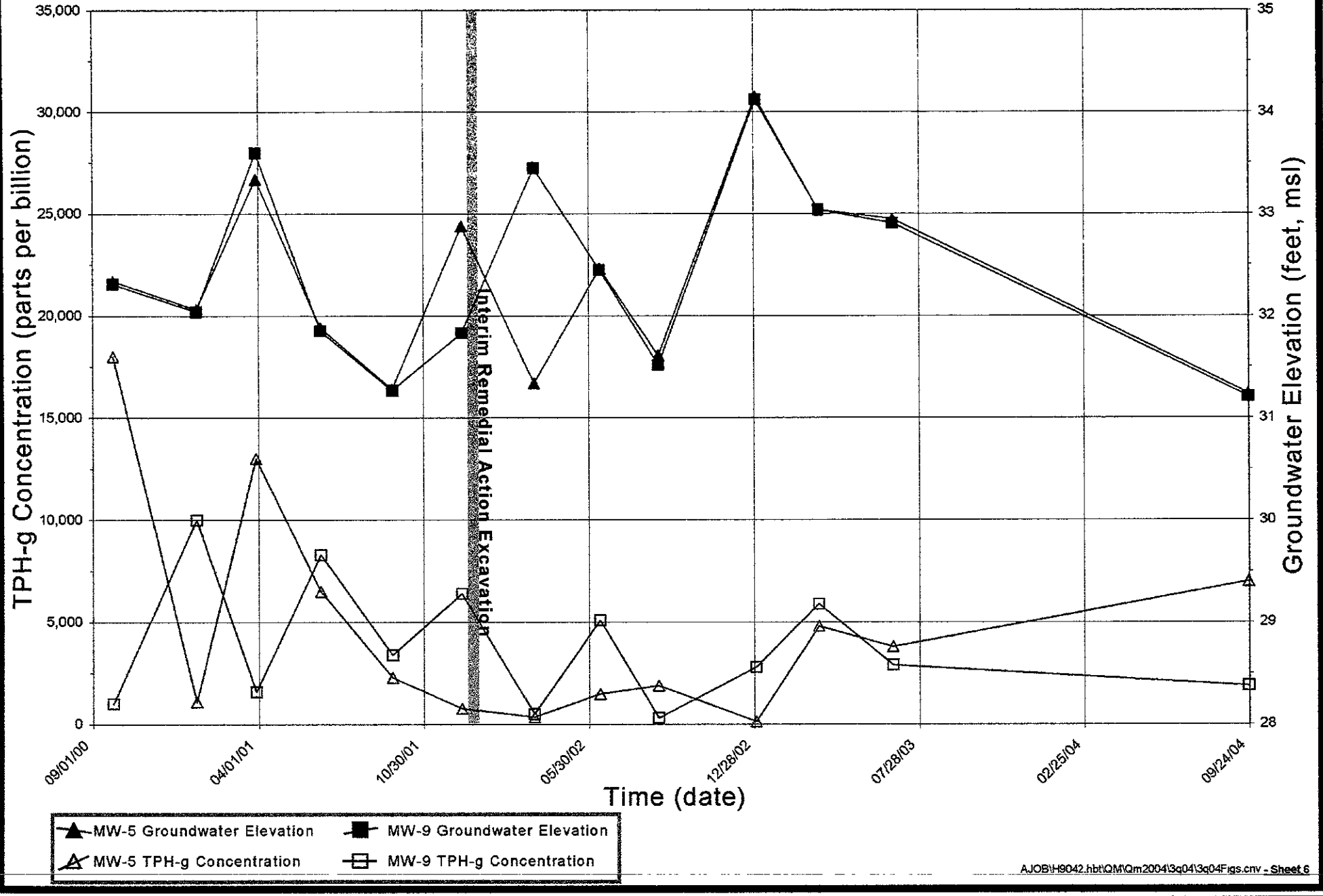
**Site Plan with Dissolved Oxygen Contours**
**September 23, 2004**
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

**Figure 5**
**Project H9042**

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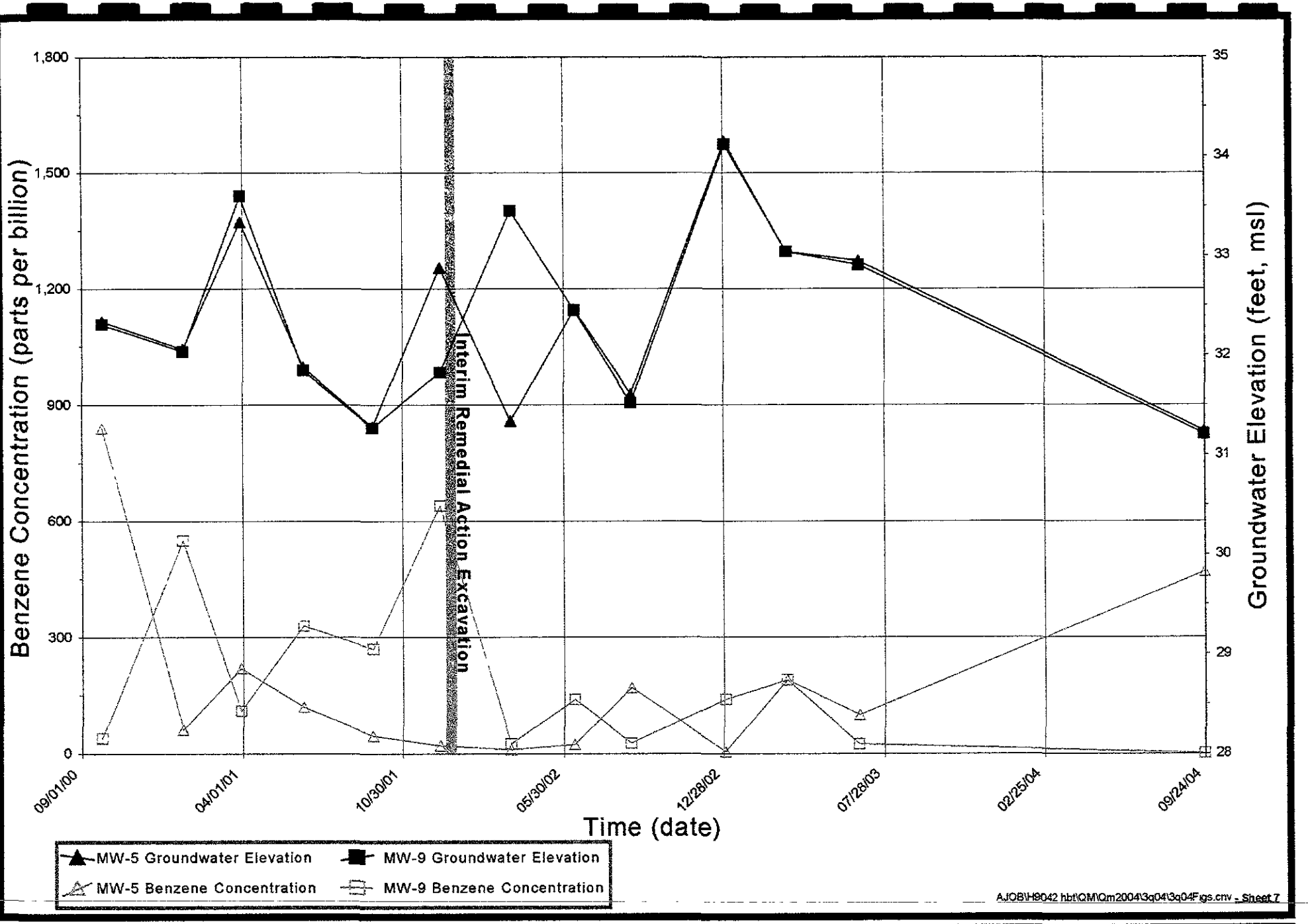
**TPH-g and Groundwater Elevation in MW-5 and MW-9 Through September 23, 2004**
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

**Figure 6 Project H9042**

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**Benzene and Groundwater Elevation in MW-5 and MW-9 Through September 23, 2004**
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

**Figure 7**
**Project 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.

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Text Page__/__
INDICATE ATTACHMENTS THAT APPLY
___ Site Map
___ Data Sheets
___ Geologic Logs
___ Photo Sheets
___ COC's
___ Chargeable Materials

| | | | | |
|---|---|---|---|---|
| Client: **Harbert Transportation** | | | | Date: **September 23, 2004** |
| Site Location: **19984 Meekland Avenue, Hayward** | | | | Study #: **H9042.Q** |
| Field Tasks: | ☐ Drilling | ☑ Sampling | ☑ Other (see below): | Weather Conditions: |
| **3rd Quarter 2004 Groundwater Monitoring** | | | | Cool to Warm & Sunny |
| Personnel / Company On-Site: | **Jered Chaney (Weber, Hayes and Associates: WHA)** | | | |

## FIELD WORK PLANNING:

Performed on: **September 22, 2004**

Meet with Project Manager: ☒ Yes ☐ No
Number of Wells to be Sampled: **10 Wells with Dissolved Oxygen (D.O.) & Depth to Groundwater in all site wells.**
Sample Wells: **MW-3 through MW-10.**
Analyze for: **TPH-g, BTEX, Fuel Oxygenates by Method GC-MS / 8260, 1,2 - DCA, & EDB.**
Proposed Sampling Date: **September 23, 2004**

## ON-SITE FIELD WORK:

Arrive on-site at 0710 to conduct 3rd Quarter 2004 Quarterly Groundwater Monitoring Well Sampling.

## LABORATORY:

JC Send all analytical to: **Entech Analytical Laboratory, 408.588.0200 - 3334 Victor Court, Santa Clara, CA**

## GROUNDWATER MONITORING FIELD WORK STANDARD OPERATING PROCEDURES:

(Initial)

JC
- All sampling is conducted according to Standard Operating Procedure (SOP) 10I/
- All pertinant information regarding the well, including water quality physical parameters are recorded on the following pages.
- All samples are placed in a refrigerated cooler immediately after sampling.
- All groundwater monitoring/purging/sampling equipment is decontaminated according to SOP 10B/at the beginning of on-site work, in between each well, and at the end of work
- All purge water is propoerly containenzed in 55-gallon drums, or another suitable container, for later removal by a licensed subcontractor.
- All samples are recorded on field Chain-of-Custody sheets for documentation of proper transportation to the appropriate Laboratory.

## INSTRUMENT CALIBRATION:

QED MP20 Flow Through Cell: **Temperature =** 16.9 °C **pH =** 7.00 & 10.00 **Electrical Conductivity =** 718 **Barometric Pressure =** 760

**D.O. % Saturation =** 100 % **Oxidation Reduction Potential (ORP) =** 242

## BEGIN SAMPLING WELLS:

MW-12, MW-7, MW-8, MW-4, MW-11, MW-10, MW-3, MW-6, MW-9, MW-4

## COMMENTS:

All wells will be purged until the QED MP20 unit indicates that the physical parameters of the water (pH, Conductivity, Temp, D.O., and ORP) have stabilized to within ~ 15%, or once four casing volumes in the well column requiring sampling have been removed (see Groundwater Monitoring Well Sampling Field Data Sheet(s) for details). Wells will be purged form the bottom up and all WHA SOPs. Wells will only be sampling using a Bladder Pump or a disposable bailer, as per RWQCB guidlines.

9/23/04
*Signature of Field Personel & Date*

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Fax (831) 722-1159

| Location | Groundwater Depth | Total Depth of Well | D.O. (mg/L) | ORP (mV) | Floating Product (comments) |
|---|---|---|---|---|---|
| MW-3 | 24.26' | 40' | 0.39 | 112 | No FP; No Odor |
| MW-4 | 24.47' | 40' | 0.94 | 297 | No FP; No Odor |
| MW-5 | 24.79' | 45' | 0.20 | 64 | No FP; Moderate to High Odor |
| MW-6 | 24.81' | 45' | 0.16 | 34 | No FP; Moderate Odor |
| MW-7 | 25.38' | 40' | 0.90 | 301 | No FP; No Odor |
| MW-8 | 24.81' | 40' | 1.92 | 301 | No FP; No Odor |
| MW-9 | 24.00' | 40' | 0.26 | 190 | No FP; Moderate Odor |
| MW-10 | 23.81' | 40' | 0.63 | 160 | No FP; Very Slight Odor |
| MW-11 | 24.04' | 40' | 0.50 | 301 | No FP; No Odor |
| MW-12 | 25.16' | 40' | 1.92 | 298 | No FP; No Odor |

JC
9/23/04

HOW MANY PURGE DRUMS WERE LEFT ON-SITE: 7 APPROXIMATE VOLUME (gallons): 165
CALL PURGE WATER REMOVAL SUBCONTRACTOR ON: _____
DRUMS WILL BE PURGED ON: _____

COMMENTS:

9/23/04
*Signature of Field Personel & Date*

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Herbert / H9042.02 **Date:** 9/23/04

**Sample No.:** MW-12 **Sample Location:** MW-12

**Samplers Name:** Jarad Chaney **Recorded by:** JC

**Purge Equipment:**

- ____ Bailer: Disposable or Acrylic
- K Whaler # 1
- ____ Bladder Pump
- ____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

(TPH-gas, BTEX, MTBE, EDB, 1,2 - DCA, 8260 Fuel Oxygenates, Ethanol)

~~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-12

**Depth to Water:** 25.16 TOC

**Well Depth:** 40' BGS or TOC

**Height W-Column:** 14.84' feet (well depth - depth to water)

**Volume in Well:** 2.374 gallons (casing volume X height)

**Gallons to purge:** 9.49 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:** Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 0758 | 0 | 17.59 | 0.425 | 8.19 | 6.51 | 288 | Moderate: Brown, Mod. fines | |
| 0759 | 1 | 18.01 | 0.561 | 4.81 | 6.49 | 291 | ↓ ↓ ↓ | |
| 0800 | 2 | 19.02 | 0.601 | 3.36 | 6.50 | 294 | Low: Clear brown, Minor fines | |
| 0801 | 3 | 18.04 | 0.619 | 3.10 | 6.51 | 295 | | |
| 0802 | 4 | 18.05 | 0.623 | 2.50 | 6.51 | 296 | | |
| 0803 | 5 | 1805 | 0.625 | 6.03 | 6.52 | 296 | ↓ ↓ ↓ | |
| 0805 | 7 | 18.07 | 0.631 | 5.15 | 6.53 | 297 | Low: Clear, Minor fines | |
| 0807 | 10 | 18.09 | 0.634 | 1.92 | 6.54 | 298 | ↓ ↓ ↓ | |
| Stop: | 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 = 14.84' x 0.8 = 11.87' - (Well Depth) 40' = Depth to water 28.13'

0810

Time: ~~25.21~~ 1st measured depth to water, 25.21 feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No____

Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____

Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____

Sample Well

Time: 0810 Sample ID: MW-12 Depth: 25.21' feet below TOC

Comments: No floating Product; No Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Harbert / 49042.Q **Date:** 9/23/04

**Sample No.:** MW-7 **Sample Location:** MW-7

**Samplers Name:** Jared Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
X Whaler # 1
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

(TPH-gas, BTEX, MTBE, EDB, 1,2 - DCA, 8260 Fuel Oxygenates, Ethanol)
~~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-7

**Depth to Water:** 25.38' TOC

**Well Depth:** 40' BGS or TOC

**Height W-Column:** 14.62 feet (well depth - depth to water)

**Volume in Well:** 9.503 gallons (casing volume X height)

**Gallons to purge:** 38.01 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:** Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 0829 | 0 | 18.33 | 0.548 | 8.57 | 6.68 | 300 | Low: Clear, Minor Fines | |
| 0830 | 1 | 18.30 | 0.622 | 3.44 | 6.70 | 300 | | |
| 0831 | 2 | 18.35 | 0.633 | 2.31 | 6.70 | 301 | | |
| 0833 | 5 | 18.43 | 0.646 | 1.79 | 6.70 | 301 | | |
| 0836 | 8 | 18.44 | 0.645 | 1.29 | 6.70 | 301 | | |
| 0840 | 12 | 18.47 | 0.646 | 0.90 | 6.70 | 301 | | ✓ |
| Stop: Purge Complete, Parameters Stabilized | | | | | | | | |
| JC 9/23/04 | | | | | | | | |

**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 = 14.62' x 0.8 = 11.69' - (Well Depth) 40' = Depth to water 28.30'

Time: 0843 1st measured depth to water, 25.91' 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: 0843 Sample ID: MW-7 Depth: 25.91' feet below TOC

Comments: No floating Product; No Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Herbert / 49042.0 **Date:** 9/23/04

**Sample No.:** MW-8 **Sample Location:** MW-8

**Samplers Name:** Jared Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
x Whaler # 1
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

(TPH-gas, BTEX, MTBE, EDB, 1,2 - DCA, 8260 Fuel Oxygenates, Ethanol)
~~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-8
**Depth to Water:** 24.81' TOC
**Well Depth:** 40' BGS or TOC
**Height W-Column:** 15.91' feet (well depth - depth to water)
**Volume in Well:** 9.873 gallons (casing volume X height)
**Gallons to purge:** 39.49 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~~ Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Parameters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 0905 | 0 | 18.44 | 0.499 | 8.07 | 6.91 | 301 | Low: Clear, Minor Fines | |
| 0906 | 1 | 18.33 | 0.595 | 4.34 | 6.91 | 302 | ↓ | |
| 0907 | 2 | 18.37 | 0.626 | 3.05 | 6.91 | 303 | ↓ | |
| 0910 | 5 | 18.43 | 0.632 | 1.62 | 6.90 | 303 | ↓ | |
| 0913 | 8 | 18.46 | 0.629 | 1.65 | 6.88 | 302 | ↓ | |
| 0916 | 12 | 18.48 | 0.630 | 1.92 | 6.86 | 301 | ↓ | ✓ |
| Stop: Purge Complete; Parameters Stabilized | | | | | | | | |
| JC 9/23/04 | | | | | | | | |

**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 = 15.91' x 0.8 = 12.72' - (Well Depth) 40' = Depth to water 27.27'

Time: 0919 1st measured depth to water, 25.82' 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: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____

Sample Well

Time: 0919 Sample ID: MW-8 Depth: 25.82' feet below TOC

Comments: No floating Product; No Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Hayhurst / H2042.Q **Date:** 9/23/04

**Sample No.:** MW-4 **Sample Location:** MW-4

**Samplers Name:** Jared Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
X Whaler # 1
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

(TPH-gas, BTEX, MTBE, EDB, 1,2 - DCA, 8260 Fuel Oxygenates, Ethanol)
~~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-4

**Depth to Water:** 24.47' TOC

**Well Depth:** 40' BGS or TOC

**Height W-Column:** 15.53' feet (well depth - depth to water)

**Volume in Well:** 2.484 gallons (casing volume X height)

**Gallons to purge:** 9.92 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:** Driver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 0942 | 0 | 20.53 | 0.206 | 9.23 | 6.83 | 293 | High: Brown, Many Fines | |
| 0943 | 1 | 19.36 | 0.633 | 5.93 | 6.77 | 297 | Low: Clear, Miner Fines | |
| 0944 | 2 | 19.29 | 0.643 | 3.35 | 6.76 | 298 | ↓ ↓ ↓ | |
| 0945 | 3 | 19.27 | 0.645 | 1.82 | 6.76 | 298 | | |
| 0946 | 4 | 19.26 | 0.645 | 1.50 | 6.76 | 298 | | |
| 0948 | 6 | 19.27 | 0.643 | 0.95 | 6.76 | 298 | | |
| 0950 | 8 | 19.29 | 0.641 | 0.94 | 6.75 | 297 | ↓ ↓ ↓ | ✓ |
| Stop: Purge Complete; Paramaters Stabilized | | | | | | | | |
| | | | | | | | | |

**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 = 15.53' x 0.8 = 12.42' - (Well Depth) 40' = Depth to water 27.57'

Time: 0953 1st measured depth to water, 24.59' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No____
Time: JC 1st measured depth to water, JC feet below TOC. Is well within 80% of original well casing volume: Yes JC No____
Time: JC 1st measured depth to water, JC feet below TOC. Is well within 80% of original well casing volume: Yes JC No____

Sample Well

Time: 0953 Sample ID: MW-4 Depth: 24.59' feet below TOC

Comments: No floating Product; No Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Herbert / #9042.9 **Date:** 9/23/04

**Sample No.:** MW-11 **Sample Location:** MW-11

**Samplers Name:** Jerad Chaney **Recorded by:** JC

**Purge Equipment:**

- ____ Bailer: Disposable or Acrylic
- X Whaler # 1
- ____ Bladder Pump
- ____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

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

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

~~Intrinsic Bio. Parameters~~

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

**Well Number:** MW-11

**Depth to Water:** 24.04' TOC

**Well Depth:** 40' BGS or TOC

**Height W-Column:** 15.96' feet (well depth - depth to water)

**Volume in Well:** 2.553 gallons (casing volume X height)

**Gallons to purge:** 10.21 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:** Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 1024 | 0 | 22.99 | 0.022 | 9.00 | 6.64 | 291 | Low: Clear-brown, Minor | |
| 1026 | 1 | 19.20 | 0.722 | 7.55 | 6.63 | 298 | ↓ ↓ ↓ | |
| 1029 | 2 | 18.62 | 0.821 | 4.26 | 6.62 | 300 | | |
| 1028 | 3 | 18.48 | 0.826 | 2.98 | 6.62 | 301 | Low: Clear, Minor fines | |
| 1029 | 4 | 18.43 | 0.824 | 1.73 | 6.62 | 301 | | |
| 1031 | 6 | 18.39 | 0.831 | 1.17 | 6.64 | 301 | | |
| 1033 | 8 | 18.34 | 0.831 | 0.57 | 6.64 | 301 | | |
| 1036 | 11 | 19.33 | 0.832 | 0.80 | 6.65 | 301 | ↓ ↓ ↓ | |
| Stop: | 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 = 15.96 x 0.8 = 12.76' - (Well Depth) 40 = Depth to water 27.23'

Time: 1038 1st measured depth to water, 24.21' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No____

Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____

Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____

Sample Well

Time: 1038 Sample ID: MW-11 Depth: 24.21' feet below TOC

Comments: No floating product; No Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Harbert / #9042.02 **Date:** 9/23/04

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

**Samplers Name:** Jered Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
X Whaler # 2
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

***Analyses Requested (cricle all that apply):***

(TPH-gas, BTEX, MTBE, EDB, 1,2 - DCA, 8260 Fuel Oxygenates, Ethanol)
~~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:** 23.81' TOC
**Well Depth:** 40' BGS or TOC
**Height W-Column:** 16.19' feet (well depth - depth to water)
**Volume in Well:** 10.52 gallons (casing volume X height)
**Gallons to purge:** 42.0 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 |
|---|---|---|---|---|---|---|---|---|
| 1105 | 0 | 21.82 | 0.871 | 8.04 | 6.66 | 277 | Low: Clear, Minor fines | |
| 1106 | 1 | 19.02 | 0.817 | 1.36 | 6.60 | 264 | ↓ | |
| 1107 | 2 | 19.01 | 0.800 | 0.91 | 6.60 | 240 | ↓ | |
| 1108 | 5 | 19.08 | 0.796 | 0.61 | 661 | 197 | ↓ | |
| 1112 | 10 | 19.10 | 0.778 | 0.74 | 6.62 | 167 | ↓ | |
| 1114 | 14 | 19.15 | 0.766 | 0.63 | 6.63 | 160 | ↓ | ✓ |
| Stop: | Purge Complete; Parameters Stabilized. | | | | | | | |
| JC 9/23/04 | | | | | | | | |

**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 = 16.19' x 0.8 = 12.95' - (Well Depth) 40' = Depth to water 27.04'

Time: 1116 1st measured depth to water, 24.06' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No____
Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____
Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC. Is well within 80% of original well casing volume: Yes ~~JC~~ No____

Sample Well

Time: 1116 Sample ID: MW-10 Depth: 24.06' feet below TOC

Comments: No floating product; Very Slight Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Harbert / 19042.Q **Date:** 9/23/04

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

**Samplers Name:** Jerad Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
X Whaler # 2
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

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

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

**Well Number:** MW-3

**Depth to Water:** 24.26' TOC

**Well Depth:** 40' BGS or TOC

**Height W-Column:** 15.74' feet (well depth - depth to water)

**Volume in Well:** 2.518 gallons (casing volume X height)

**Gallons to purge:** 10.07 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:** Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 1145 | 0 | 23.27 | 0.641 | 8.04 | 6.68 | 246 | Low: Clear, Minor Fines | |
| 1146 | 1 | 19.51 | 0.700 | 3.37 | 6.68 | 226 | | |
| 1147 | 2 | 19.11 | 0.737 | 1.55 | 6.70 | 193 | | |
| 1147 | 3 | 18.98 | 0.737 | 1.01 | 6.73 | 176 | | |
| 1148 | 4 | 18.94 | 0.735 | 0.86 | 6.73 | 159 | | |
| 1149 | 6 | 18.90 | 0.735 | 0.71 | 6.75 | 139 | | |
| 1151 | 8 | 18.88 | 0.733 | 0.51 | 6.77 | 121 | | |
| 1153 | 11 | 18.88 | 0.733 | 0.39 | 6.79 | 112 | | |
| Stop: | 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 = 15.74' x 0.8 = 12.59' - (Well Depth) 40' = Depth to water 27.40'

Time: 1154 1st measured depth to water, 24.91' 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: 1154 Sample ID: MW-3 Depth: 24.91' feet below TOC

Comments: No floating product; No Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Halbert / 149042.Q **Date:** 9/23/04

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

**Samplers Name:** Jared Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
X Whaler # 2
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

~~TPH-gas~~, BTEX, MTBE, EDB, 1,2 - DCA, 8260 Fuel Oxygenates, Ethanol
~~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:** 24.81 TOC
**Well Depth:** 45' BGS or TOC
**Height W-Column:** 20.19' feet (well depth - depth to water)
**Volume in Well:** 13.12 gallons (casing volume X height)
**Gallons to purge:** 52.49 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:** Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 1211 | 0 | 19.71 | 0.700 | 6.50 | 6.74 | 150 | MW: Clear, Minor fines | |
| 1212 | 1 | 18.96 | 0.726 | 1.45 | 6.72 | 115 | | |
| 1213 | 2 | 18.88 | 0.726 | 1.00 | 6.72 | 90 | | |
| 1216 | 6 | 18.98 | 0.725 | 0.76 | 6.74 | 52 | | |
| 1219 | 12 | 19.06 | 0.723 | 0.34 | 6.77 | 32 | | |
| 1223 | 18 | 19.01 | 0.715 | 0.16 | 6.75 | 34 | | ✓ |
| Stop: Purge Complete; Parameters Stabilized | | | | | | | | |
| JC 9/23/04 | | | | | | | | |

**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 = 20.19' x 0.8 = 16.15' - (Well Depth) 45' = Depth to water 28.84'

Time: 1225 1st measured depth to water, 27.62' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No ____
Time: JC 1st measured depth to water, JC feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____
Time: JC 1st measured depth to water, JC feet below TOC. Is well within 80% of original well casing volume: Yes JC No ____

Sample Well

Time: 1225 Sample ID: MW-6 Depth: 27.62' feet below TOC

Comments: No floating Product; Moderate Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Harbert / H2092.Q **Date:** 9/23/04

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

**Samplers Name:** Jared Chaney **Recorded by:** JC

**Purge Equipment:**

_____ Bailer: Disposable or Acrylic
X Whaler # 2
_____ Bladder Pump
_____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

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

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

**Well Number:** MW.9

**Depth to Water:** 24.00' TOC

**Well Depth:** 40' BGS or TOC

**Height W-Column:** 16.00' feet (well depth - depth to water)

**Volume in Well:** 10.4 gallons (casing volume X height)

**Gallons to purge:** 41.6 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:** Deliver

| Time (24 hr.) | Volume Purged (Gallons) | Temperature (°C) | Conductivity (ms/cm) | D.O. (ppm) | pH | ORP (mV) | Turbidity: Color, Fines | Micropurge Paramaters Stabilized |
|---|---|---|---|---|---|---|---|---|
| 1252 | 0 | 20.10 | 0.556 | 4.98 | 7.00 | 198 | Low; Clear, Minor Fines | |
| 1257 | 1 | 19.31 | 0.561 | 1.61 | 7.02 | 198 | | |
| 1253 | 2 | 19.26 | 0.561 | 0.26 | 7.01 | 199 | | |
| 1255 | 5 | 19.28 | 0.559 | 0.14 | 7.03 | 197 | | |
| 1258 | 10 | 19.34 | 0.556 | 0.20 | 7.05 | 192 | | |
| 1301 | 14 | 19.36 | 0.552 | 0.26 | 7.05 | 190 | | ✓ |
| Stop: | Purge | Complete; | Parameters | Stabilized | | | | |
| JC 9/23/04 | | | | | | | | |

**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 = 16' x 0.8 = 12.8' - (Well Depth) 40' = Depth to water 27.20'

Time: 1303 1st measured depth to water, 25.16' feet below TOC.
Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC.
Time: ~~JC~~ 1st measured depth to water, ~~JC~~ feet below TOC.

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

Sample Well

Time: 1303 Sample ID: MW.9 Depth: 25.16' feet below TOC

Comments: No Floating Product; Moderate Odor

# GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

**Project Name/No.:** Herbert / #9042.0 **Date:** 9/23/04

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

**Samplers Name:** Jered Chaney **Recorded by:** JC

**Purge Equipment:**

- ____ Bailer: Disposable or Acrylic
- X Whaler # 2
- ____ Bladder Pump
- ____ Redi-flow Pump (Grundfus)

**Sample Equipment:**

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

**Analyses Requested (cricle all that apply):**

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

~~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-5

**Depth to Water:** 24.79' TOC

**Well Depth:** 45' BGS or TOC

**Height W-Column:** 20.21' feet (well depth - depth to water)

**Volume in Well:** 13.13 gallons (casing volume X height)

**Gallons to purge:** 52.5 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 |
|---|---|---|---|---|---|---|---|---|
| 1320 | 0 | 21.74 | 0.546 | 6.42 | 6.90 | 219 | High: Brown, Many Fines | |
| 1321 | 1 | 19.03 | 0.586 | 1.89 | 6.85 | 220 | Low: Clear, Minor Fines | |
| 1321 | 2 | 18.92 | 0.586 | 0.89 | 6.85 | 221 | ↓ | |
| 1323 | 5 | 18.98 | 0.575 | 0.16 | 6.83 | 200 | ↓ | |
| 1328 | 12 | 19.12 | 0.503 | 0.19 | 6.81 | 84 | ↓ | |
| 1330 | 16 | 19.13 | 0.503 | 0.20 | 6.81 | 64 | ↓ | ✓ |
| Stop: Purge Complete; Parameters Stabilized | | | | | | | | |
| JC 9/23/04 | | | | | | | | |

**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 = 20.21' x 0.8 = 16.16' - (Well Depth) 45' = Depth to water 28.83'

Time: 1353 1st measured depth to water, 32.58' feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ✓

Time: 1343 1st measured depth to water, 28.80' feet below TOC. Is well within 80% of original well casing volume: Yes ✓ No ____

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

Sample Well

Time: 1343 Sample ID: MW-5 Depth: 28.80' feet below TOC

Comments: No floating product; Moderate to High Odor

# Appendix B

# Certified Analytical Report - Groundwater Samples

# Entech Analytical Labs, Inc.

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

Jered Chancy
Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076

**Certificate ID: 40553 - 9/30/2004 12:20:50 PM**

**Order:** 40553
**Project Name:** Harbert Transportation
**Project Number:** H9042.Q

**Date Collected:** 9/23/2004
**Date Received:** 9/23/2004
**P.O. Number:** H9042.Q

## Certificate of Analysis - Final Report

On September 23, 2004, samples were received under chain of custody for analysis. Entech analyzes samples "as received" unless otherwise noted. The following results are included:

| Matrix | Test | Method | Comments |
|---|---|---|---|
| Liquid | 8260Petroleum | EPA 8260B | 8260Petroleum=1,2DCA+EDB+BTEX+Oxy's+Ethanol for all samples |
| | TPH as Gasoline - GC/MS | GC-MS | |

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

for Laurie GG

Laurie Glantz-Murphy
Laboratory Director

# Entech Analytical Labs, Inc.

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

**Weber, Hayes and Associates**
**120 Westgate Drive**
**Watsonville, CA 95076**
**Attn: Jered Chaney**

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-001 **Sample ID:** MW-3 **Matrix:** Liquid **Sample Date:** 9/23/2004 11:54 AM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | 2.9 | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 64 - 125 |
| Dibromofluoromethane | 101 | 23 - 172 |
| Toluene-d8 | 104 | 70 - 134 |

Analyzed by: TAF
Reviewed by MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 160 | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 97.0 | 64 - 125 |
| Dibromofluoromethane | 91.4 | 23 - 172 |
| Toluene-d8 | 95 7 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

# Entech Analytical Labs, Inc.

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Attn: Jered Chaney

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-002 **Sample ID:** MW-4 **Matrix:** Liquid **Sample Date:** 9/23/2004 9:53 AM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 64 - 125 |
| Dibromofluoromethane | 101 | 23 - 172 |
| Toluene-d8 | 104 | 70 - 134 |

Analyzed by TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 97.5 | 64 - 125 |
| Dibromofluoromethane | 103 | 23 - 172 |
| Toluene-d8 | 96.2 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments

ND = Not Detected at or above the Detection Limit.

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**Attn: Jered Chaney**

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-003 **Sample ID: MW-5** **Matrix:** Liquid **Sample Date:** 9/23/2004 1:43 PM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 470 | | 20 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | 86 | | 20 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | 1000 | | 20 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | 2200 | | 20 | 20 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 20 | 6 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Note: Methyl-t-butyl Ether is being reported to the MDL. | | | | | | | | | |
| Ethyl-t-butyl Ether | ND | | 20 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 20 | 200 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 20 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 20 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 20 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 20 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 20 | 2000 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 64 - 125 |
| Dibromofluoromethane | 105 | 23 - 172 |
| Toluene-d8 | 104 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 7000 | | 40 | 1000 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 91.5 | 64 - 125 |
| Dibromofluoromethane | 94.1 | 23 - 172 |
| Toluene-d8 | 91.8 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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**Attn: Jered Chaney**

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-004 **Sample ID: MW-6** **Matrix:** Liquid **Sample Date:** 9/23/2004 12:25 PM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | 350 | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | 79 | | 5 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 5 | 1.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Note: Methyl-t-butyl Ether is being reported to the MDL. | | | | | | | | | |
| Ethyl-t-butyl Ether | ND | | 5 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 5 | 50 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 5 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 5 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 5 | 500 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 103 | 64 - 125 |
| Dibromofluoromethane | 106 | 23 - 172 |
| Toluene-d8 | 103 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 4400 | | 5 | 130 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 87.2 | 64 - 125 |
| Dibromofluoromethane | 99.5 | 23 - 172 |
| Toluene-d8 | 88.0 | 70 - 134 |

Analyzed by: XBian
Reviewed by BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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**Attn: Jered Chaney**

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-005 **Sample ID: MW-7** **Matrix:** Liquid **Sample Date:** 9/23/2004 8:43 AM

**Method: EPA-8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | 0.73 | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 64 - 125 |
| Dibromofluoromethane | 101 | 23 - 172 |
| Toluene-d8 | 104 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| *TPH as Gasoline* | ND | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 99.9 | 64 - 125 |
| Dibromofluoromethane | 104 | 23 - 172 |
| Toluene-d8 | 98.7 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Attn: Jered Chaney

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-006 **Sample ID:** MW-8 **Matrix:** Liquid **Sample Date:** 9/23/2004 9:19 AM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 64 - 125 |
| Dibromofluoromethane | 102 | 23 - 172 |
| Toluene-d8 | 105 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 98.3 | 64 - 125 |
| Dibromofluoromethane | 104 | 23 - 172 |
| Toluene-d8 | 98.6 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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**Attn: Jered Chaney**

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-007 **Sample ID:** MW-9 **Matrix:** Liquid **Sample Date:** 9/23/2004 1:03 PM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | 230 | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | 180 | | 5 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 5 | 1.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Note: Methyl-t-butyl Ether is being reported to the MDL. | | | | | | | | | |
| Ethyl-t-butyl Ether | ND | | 5 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 5 | 50 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 5 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 5 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 5 | 2.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 5 | 500 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 64 - 125 |
| Dibromofluoromethane | 102 | 23 - 172 |
| Toluene-d8 | 104 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 1900 | | 5 | 130 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 89.0 | 64 - 125 |
| Dibromofluoromethane | 94.2 | 23 - 172 |
| Toluene-d8 | 89.3 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

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Attn: Jered Chaney

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
*Sampled By: Client*

## Certificate of Analysis - Data Report

**Lab # :** 40553-008 **Sample ID: MW-10** **Matrix:** Liquid **Sample Date:** 9/23/2004 11:16 AM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 64 - 125 |
| Dibromofluoromethane | 106 | 23 - 172 |
| Toluene-d8 | 105 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 600 | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 99.1 | 64 - 125 |
| Dibromofluoromethane | 94.8 | 23 - 172 |
| Toluene-d8 | 94.5 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

# Entech Analytical Labs, Inc.

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

**Weber, Hayes and Associates**
**120 Westgate Drive**
**Watsonville, CA 95076**
**Attn: Jered Chaney**

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-009 **Sample ID: MW-11** **Matrix:** Liquid **Sample Date:** 9/23/2004 10:38 AM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 101 | 64 - 125 |
| Dibromofluoromethane | 103 | 23 - 172 |
| Toluene-d8 | 103 | 70 - 134 |

Analyzed by: TAF
Reviewed by: MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 96.5 | 64 - 125 |
| Dibromofluoromethane | 101 | 23 - 172 |
| Toluene-d8 | 97.1 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

# Entech Analytical Labs, Inc.

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

Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076
Attn: Jered Chaney

Project Number: H9042.Q
Project Name: Harbert Transportation
Date Received: 9/23/2004
P.O. Number: H9042.Q
Sampled By: Client

## Certificate of Analysis - Data Report

**Lab # :** 40553-010 **Sample ID:** MW-12 **Matrix:** Liquid **Sample Date:** 9/23/2004 8:10 AM

**Method: EPA 8260B / EPA 5030B / Purge & Trap**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Toluene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl Benzene | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Xylenes, Total | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Methyl-t-butyl Ether | ND | | 1 | 1 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethyl-t-butyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Butanol (TBA) | ND | | 1 | 10 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Diisopropyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| tert-Amyl Methyl Ether | ND | | 1 | 5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dichloroethane | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| 1,2-Dibromoethane (EDB) | ND | | 1 | 0.5 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |
| Ethanol | ND | | 1 | 100 | µg/L | N/A | N/A | 09/27/2004 | WMS2040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 64 - 125 |
| Dibromofluoromethane | 105 | 23 - 172 |
| Toluene-d8 | 103 | 70 - 134 |

Analyzed by TAF
Reviewed by MTU

**Method: GC-MS**

| Parameter | Result | Flag | DF | Detection Limit | Units | Prep Date | Prep Batch | Analysis Date | QC Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | | 1 | 25 | µg/L | N/A | N/A | 09/27/2004 | WMS1040927 |

| Surrogate | Surrogate Recovery | Control Limits (%) |
|---|---|---|
| 4-Bromofluorobenzene | 95.8 | 64 - 125 |
| Dibromofluoromethane | 101 | 23 - 172 |
| Toluene-d8 | 96.7 | 70 - 134 |

Analyzed by: XBian
Reviewed by: BDHABALIA

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

# Entech Analytical Labs, Inc.

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

## Quality Control - Method Blank

### Liquid

Validated by: MTU - 09/30/04

**QC Batch ID: WMS2040927**

**Analysis Date: 9/27/2004**

**Method Blank** **Method: EPA 8260B**

| Parameter | Result | DF | PQLR | Units |
|---|---|---|---|---|
| 1,2-Dibromoethane (EDB) | ND | 1 | 0.5 | µg/L |
| 1,2-Dichloroethane | ND | 1 | 0.5 | µg/L |
| Benzene | ND | 1 | 0.5 | µg/L |
| Diisopropyl Ether | ND | 1 | 5 | µg/L |
| Ethanol | ND | 1 | 100 | µg/L |
| Ethyl Benzene | ND | 1 | 0.5 | µg/L |
| Ethyl-t-butyl Ether | ND | 1 | 5 | µg/L |
| Methyl-t-butyl Ether | ND | 1 | 1 | µg/L |
| tert-Amyl Methyl Ether | ND | 1 | 5 | µg/L |
| tert-Butanol (TBA) | ND | 1 | 10 | µg/L |
| Toluene | ND | 1 | 0.5 | µg/L |
| Xylene, m+p | ND | 1 | 1 | µg/L |
| Xylene, o | ND | 1 | 0.5 | µg/L |
| Xylenes, Total | ND | 1 | 1 | µg/L |

| Surrogate for Blank | % Recovery | Control Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 64 - 125 |
| Dibromofluoromethane | 97.9 | 23 - 172 |
| Toluene-d8 | 105 | 70 - 134 |

## Quality Control - Laboratory Control Spike / Duplicate Results

### Liquid

Reviewed by: MTU - 09/30/04

**QC Batch ID: WMS2040927**

**Analysis Date: 9/27/2004**

**LCS** **Method: EPA 8260B** Conc. Units: µg/L

| Parameter | Blank | Spike Amt | SpikeResult | QC Type | Analysis Date | % Recovery | RPD | RPD Limits | Recovery Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.5 | 20.0 | 19.4 | LCS | 9/27/2004 | 97 | | | 77 - 154 |
| Methyl-t-butyl Ether | <1 | 20.0 | 20.7 | LCS | 9/27/2004 | 100 | | | 58 - 127 |
| Toluene | <0.5 | 20.0 | 20.5 | LCS | 9/27/2004 | 100 | | | 47 - 137 |

| Surrogate | % Recovery | Control Limits |
|---|---|---|
| 4-Bromofluorobenzene | 102 | 64 - 125 |
| Dibromofluoromethane | 101 | 23 - 172 |
| Toluene-d8 | 102 | 70 - 134 |

**LCSD** **Method: EPA 8260B** Conc. Units: µg/L

| Parameter | Blank | Spike Amt | SpikeResult | QC Type | Analysis Date | % Recovery | RPD | RPD Limits | Recovery Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.5 | 20.0 | 19.9 | LCSD | 9/27/2004 | 100 | 2.4 | 25 | 77 - 154 |
| Methyl-t-butyl Ether | <1 | 20.0 | 20.6 | LCSD | 9/27/2004 | 100 | 0.5 | 25 | 58 - 127 |
| Toluene | <0.5 | 20.0 | 20.9 | LCSD | 9/27/2004 | 100 | 2.0 | 25 | 47 - 137 |

| Surrogate | % Recovery | Control Limits |
|---|---|---|
| 4-Bromofluorobenzene | 100 | 64 - 125 |
| Dibromofluoromethane | 100 | 23 - 172 |
| Toluene-d8 | 101 | 70 - 134 |

# Entech Analytical Labs, Inc.

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

## Quality Control - Method Blank

## Liquid

Validated by: BDHABALIA - 09/28/04

**QC Batch ID: WMS1040927**

***Analysis Date: 9/27/2004***

**Method Blank** **Method: GC-MS**

| Parameter | Result | DF | PQLR | Units |
|---|---|---|---|---|
| TPH as Gasoline | ND | 1 | 25 | µg/L |

| Surrogate for Blank | % Recovery | Control Limits |
|---|---|---|
| 4-Bromofluorobenzene | 99.4 | 64 - 125 |
| Dibromofluoromethane | 99.3 | 23 - 172 |
| Toluene-d8 | 101 | 70 - 134 |

## Quality Control - Laboratory Control Spike / Duplicate Results

## Liquid

Reviewed by: BDHABALIA - 09/28/04

**QC Batch ID: WMS1040927**

**Analysis Date: 9/27/2004**

**LCS** **Method: GC-MS** **Conc. Units: µg/L**

| Parameter | Blank | Spike Amt | SpikeResult | QC Type | Analysis Date | % Recovery | RPD | RPD Limits | Recovery Limits |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | <25 | 125 | 128 | LCS | 9/27/2004 | 100 | | | 65 - 135 |

| Surrogate | % Recovery | Control Limits |
|---|---|---|
| 4-Bromofluorobenzene | 97.7 | 64 - 125 |
| Dibromofluoromethane | 95.8 | 23 - 172 |
| Toluene-d8 | 97.9 | 70 - 134 |

**LCSD** **Method: GC-MS** **Conc. Units: µg/L**

| Parameter | Blank | Spike Amt | SpikeResult | QC Type | Analysis Date | % Recovery | RPD | RPD Limits | Recovery Limits |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | <25 | 125 | 121 | LCSD | 9/27/2004 | 97 | 5.7 | 25 | 65 - 135 |

| Surrogate | % Recovery | Control Limits |
|---|---|---|
| 4-Bromofluorobenzene | 95.9 | 64 - 125 |
| Dibromofluoromethane | 97.5 | 23 - 172 |
| Toluene-d8 | 102 | 70 - 134 |

**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: Weber, Hayes & Associates - Attention: Jered Chaney

ELECTRONIC DELIVERABLE FORMAT: [X] YES [ ] NO

LABORATORY: Entech

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

GLOBAL I.D.: T0600100475

Sampler: Jered Chaney

Date: 9/23/04

| Field Point Name (Geo Tracker) | 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: TPH-Diesel | Total Recoverable Petroleum Hydrocarbons | TPH-Gasoline by EPA Method GC - MS | Volatile Organics: Fuel Oxygenates & BTEX EPA Method# 8260 | EDB EPA Method# 8260 | Methanol EPA Method# 8015M | 1,2-DCA by EPA Method# 8260 | Additional Analysis: Total Lead | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-3 | MW-3 | 24.91 | 9/23/04 | 1154 | Aq | 3 | | | | | | X | X | X | | X | 1/0553 | 001 |
| MW-4 | MW-4 | 24.99 | | 0953 | | 3 | | | | | | X | X | X | | X | | 002 |
| MW-5 | MW-5 | 24.30 | | 1343 | | 3 | | | | | | X | X | X | | X | | 003 |
| MW-6 | MW-6 | 24.62 | | 1225 | | 3 | | | | | | X | X | X | | X | | 004 |
| MW-7 | MW-7 | 25.91 | | 0843 | | 3 | | | | | | X | X | X | | X | | 005 |
| MW-8 | MW-8 | 25.82 | | 0919 | | 3 | | | | | | X | X | X | | X | | 006 |
| MW-9 | MW-9 | 25.16 | | 1303 | | 3 | | | | | | X | X | X | | X | | 007 |
| MW-10 | MW-10 | 24.00 | | 1146 | | 3 | | | | | | X | X | X | | X | | 008 |
| MW-11 | MW-11 | 24.21 | | 1038 | | 3 | | | | | | X | X | X | | X | | 009 |
| MW-12 | MW-12 | 25.21 | ↓ | 0910 | ↓ | 3 | | | | | | X | X | X | | X | | 010 |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| RELEASED BY: | Date & Time | RECEIVED BY: | Date & Time |
|---|---|---|---|
| 1) | 9/23/04 1507 | Joseph Machado | 9/23/04 1507 |
| 2) | | | |
| 3) | | | |
| 4.) | | | |
| 5) | | | |

SAMPLE CONDITION: (circle 1)

| | | |
|---|---|---|
| Ambient | (Refrigerated) | Frozen |
| Ambient | Refrigerated | Frozen |
| Ambient | Refrigerated | Frozen |
| Ambient | Refrigerated | Frozen |
| Ambient | Refrigerated | Frozen |

**NOTES:**

[ ] *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*

[ ] *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 email an EDF of theses results to frances@weber-hayes.com
- Fuel oxygenates should include MTBE, DIPE, TAME, ETBE, TBA, & Ethanol.

# Appendix C

# 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 | | | | |
| | | 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 |
| 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 | 1,800 [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 TPH-G | TPH-D | TPH-MO | 8020 Benzene | Ethylbenzene | Toluene | Total Xylenes | 8010 TCE | PCE | 1,2-DCA | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 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 | 2,600 | 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 | 1,600 | 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 | | | 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 |
| 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 | 480 | 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 | | | 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 |
| 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 | 2,600 | 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] | | 8,865 | 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**
Halbert Transportation/Meekland Avenue
Hayward, California

| Well | Date Sampled | EPA Test Methods | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 8015 M | | BETX 5030/8020 | | | | 8010 | | |
| | | TPH Gasoline µg/L | TPH Diesel µg/L | Benzene µg/L | Ethylbenzene µg/L | Toluene µg/L | Xylenes µg/L | 1,2-DCA µg/L | PCE µg/L | TCE 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 | 280 | 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

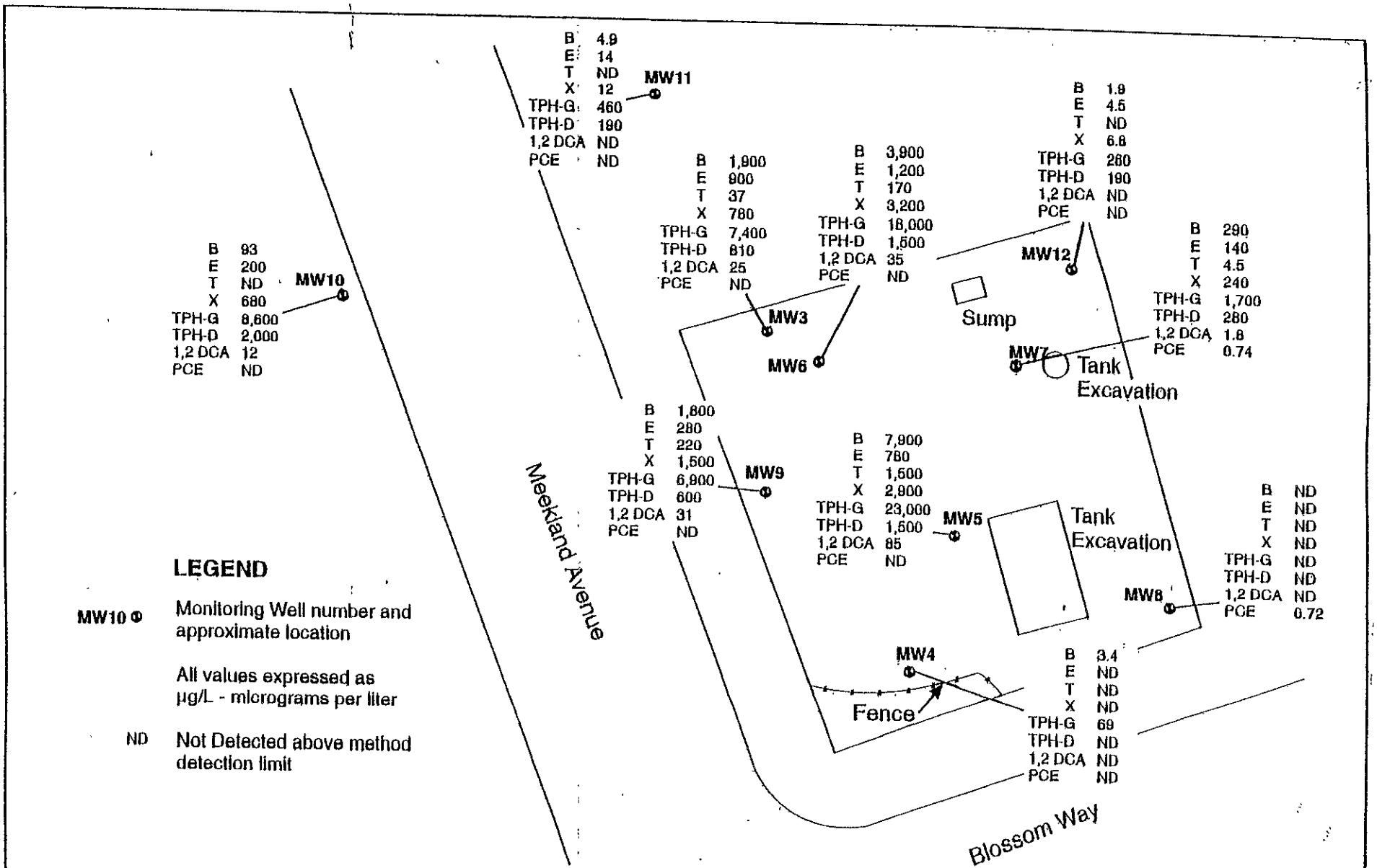
| Well | Date Sampled | EPA Test Methods | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 8015 M | | BETX 5030/8020 | | | | 8010 | | |
| | | TPH Gasoline | TPH Diesel | Benzene | Ethylbenzene | Toluene | Xylenes | 1,2-DCA | PCE | TCE |
| | | µg/L | µg/L | µg/L | | | | µg/L | µg/L | 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] | 6.2 | 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 µg/L | TPH Diesel µg/L | Benzene | Ethylbenzene | Toluene | Xylenes | 1,2-DCA µg/L | PCE µg/L | TCE 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 ($C_6$-$C_{12}$), possibly gasoline.
c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product ($C_6$-$C_{12}$) 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

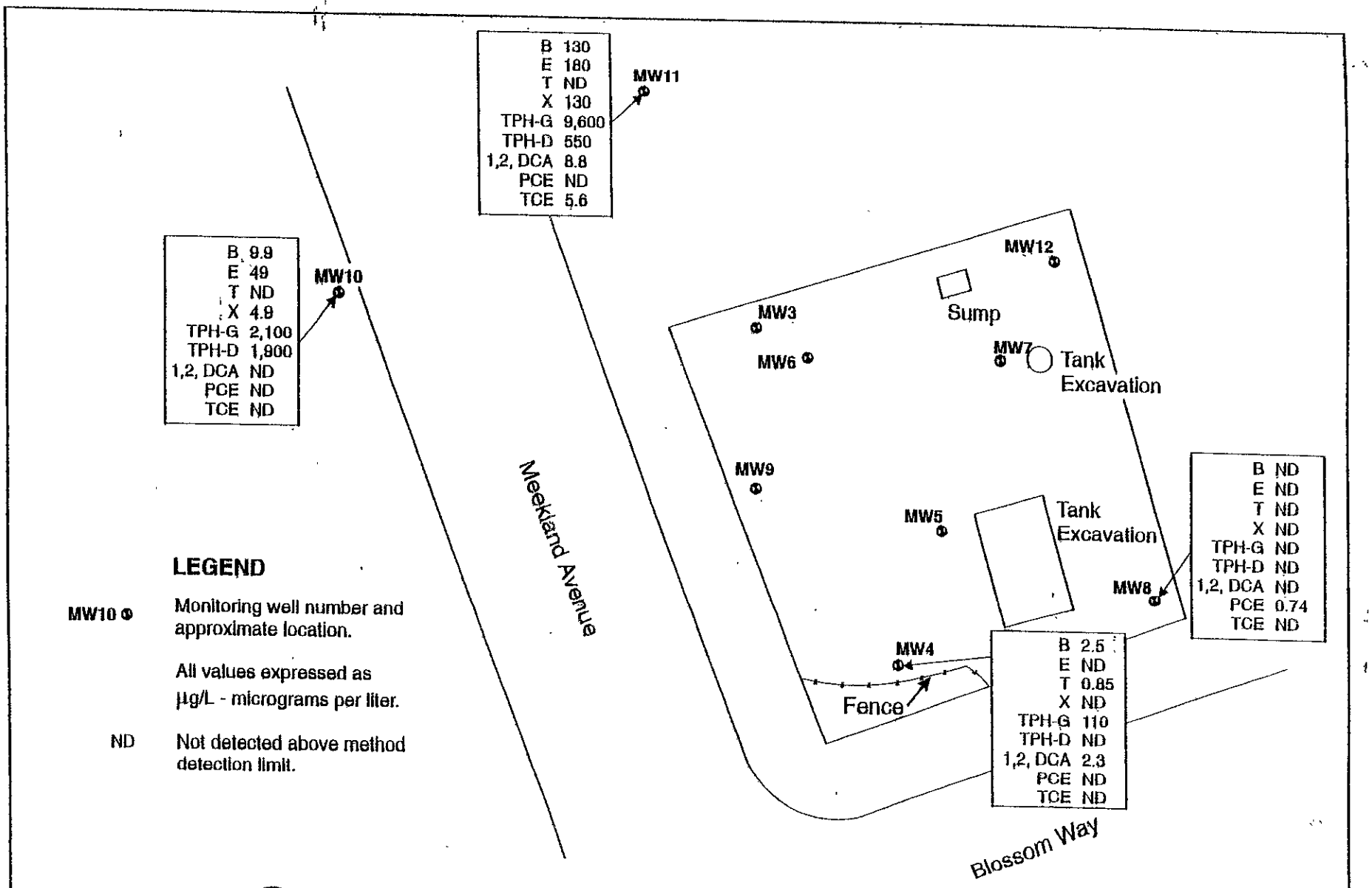
AGI TECHNOLOGIES

# 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 | | |



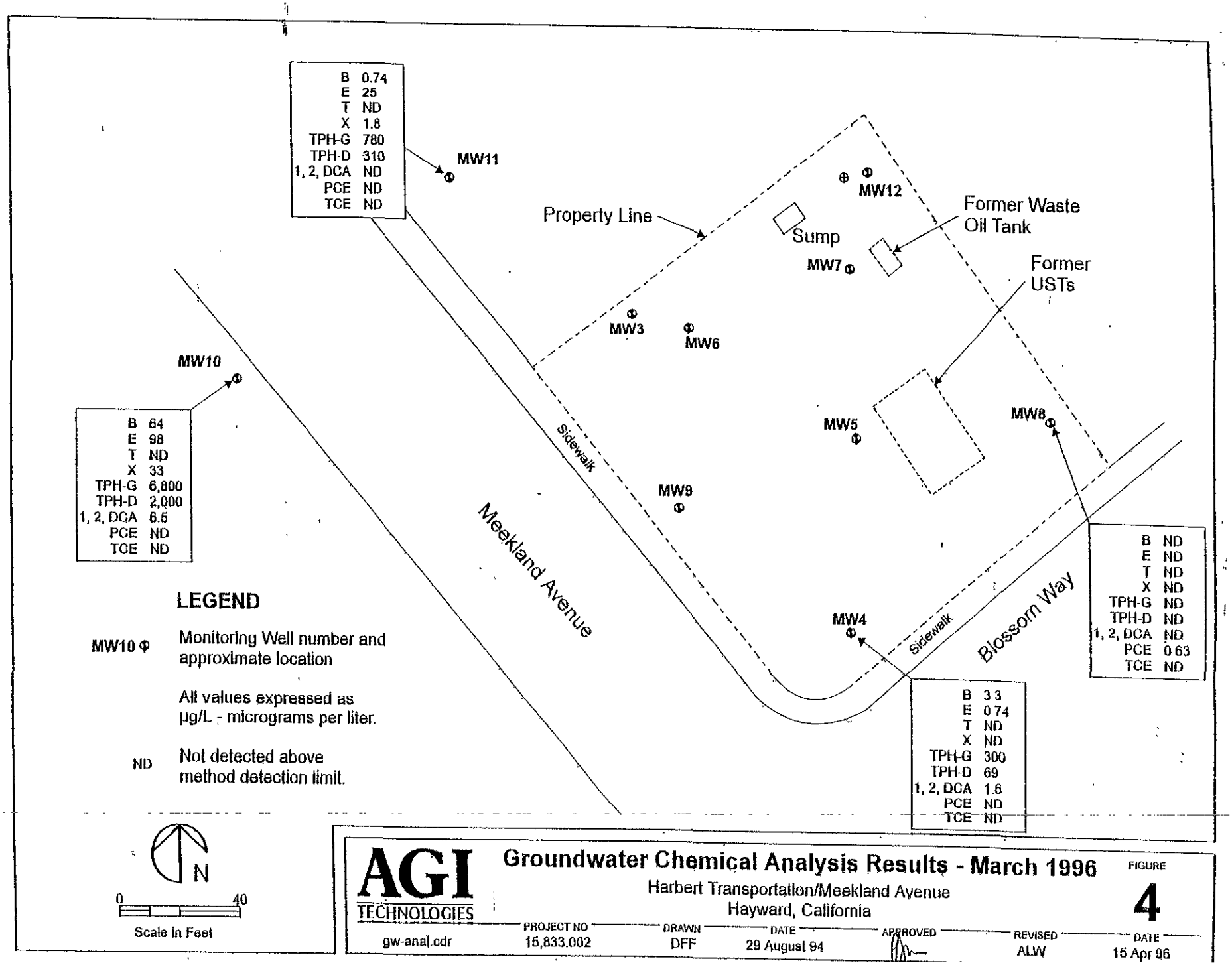

AGI TECHNOLOGIES

# Groundwater Chemical Analysis Results - 9/15/95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

| PROJECT NO | DRAWN | DATE | APPROVED | REVISED | DATE |
|---|---|---|---|---|---|
| 83300201.cdr | 15,833.002 | DFF | 1 Feb 95 | BJA | 8 Nov 95 |



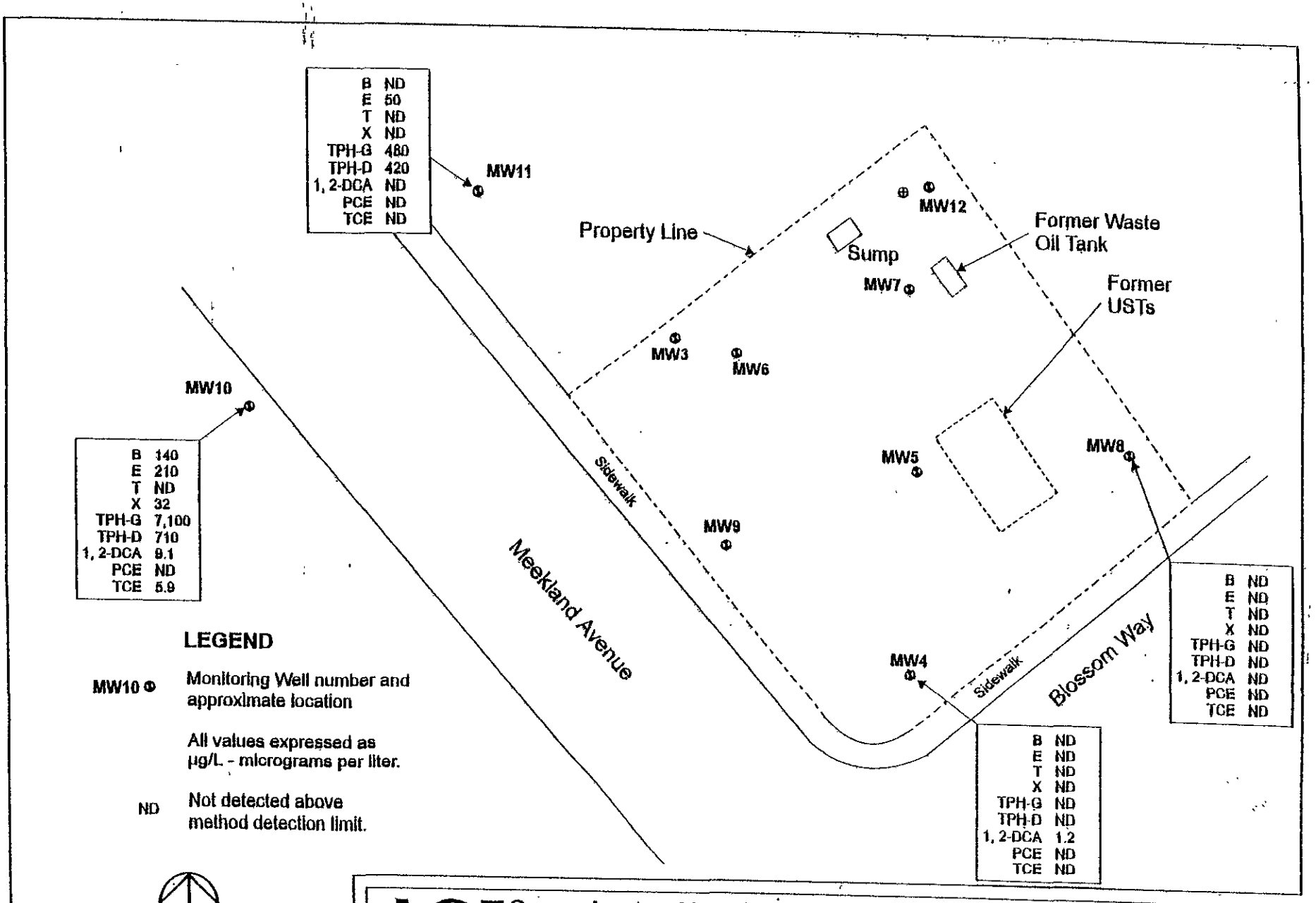

AGI TECHNOLOGIES

# Groundwater Chemical Analysis Results - March 1996

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

| PROJECT NO | DRAWN | DATE | APPROVED | REVISED | DATE |
|---|---|---|---|---|---|
| gw-anal.cdr | 16,833.002 | DFF 29 August 94 | | ALW | 15 Apr 96 |




AGI TECHNOLOGIES

# Groundwater Chemical Analysis Results - September 1996

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

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