RO-47

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

April 11, 2005
Project H9042.Q

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

Subject: **Semi - Annual Groundwater Monitoring Report - First Quarter 2005**
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 first quarter 2005.

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 Environmental Health (ACEH) requested additional information and a restart of semi-annual groundwater monitoring in a letter dated May 13, 2004. In response to Alameda County directives. WHA submitted a revised Site Conceptual Model, and a Workplan for additional investigation dated July 30, 2004. Alameda County Environmental Health reviewed this report and submitted comments and informational requests in their letter dated December 2, 2005. We submitted a Workplan Addendum dated January 27, 2005 to address the informational requests of ACEH. ACEH has reviewed and approved the Workplan Addendum in their email dated March 30, 2005.

EXECUTIVE SUMMARY

The groundwater monitoring event for the first quarter 2005 took place on March 23, 2005. Groundwater elevations at the site rose an average of approximately 4.15 feet since the last semi-annual groundwater monitoring activities were performed at the site (September 23, 2004). The calculated groundwater flow direction on March 23, 2005 was to the southwest, which is generally consistent with historical data. Groundwater analytical results from the first quarter 2005 indicate that dissolved PHC concentrations decreased up to two orders of magnitude in wells MW-5, 6, and 9. No detections of contaminants were discovered in any of the off-site wells. Only MW-9 marginally exceeded dissolved PHC concentrations above Alameda County's proposed cleanup goals for off-site plume migration (1,100 ppb TPH (g) detected in MW-9 versus goal of 1000 ppb).

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.

Semi-Annual Groundwater Monitoring Report - First Quarter 2005
19984 Meekland Avenue, Hayward, California
April 11, 2005

As per the revised sampling schedule issued by ACEH 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 during the last semi-annual groundwater monitoring event. Sampling for these compounds was not conducted this quarter.**

Biological parameters were collected from a transect of wells (MW-3, 5, 8, 9, & 10) this quarter per our Workplan Addendum dated January 27, 2005. **Overall, the relative concentrations of biological parameters measured on March 23, 2005 indicate that natural attenuation of dissolved petroleum hydrocarbons via biological remediation is occurring at this site through both aerobic, and anaerobic processes.**

At this time, we recommend completing the tasks described in our Workplan Addendum dated January 27, 2005, including deep sampling of soil and groundwater (scheduled for April 18), and responding to ACEH comments in their March 2, 2005 letter, including creating additional geologic cross-sections, an estimate of residual hydrocarbon mass, and evaluation of contaminant trends over time.

INTRODUCTION

This report documents groundwater monitoring activities at the site during the first quarter 2005. This report has been prepared pursuant to a directive from the ACEH dated 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, oxidation reduction potential, and dissolved oxygen concentration in each well
3. Collecting groundwater samples from the appropriate monitoring wells to be analyzed for PHC concentrations
4. Collecting groundwater samples from the appropriate monitoring wells to be analyzed for biological parameters per our *Workplan* Addendum dated January 27, 2005.
5. Submitting the groundwater samples to a state-certified analytical laboratory for analysis of dissolved PHC concentrations, and bio-parameters following proper chain-of-custody procedures
6. Determining groundwater elevations, flow direction, and gradient in the vicinity of the site

7. Mapping the extent of the dissolved PHC plume in groundwater beneath the site
8. 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 was operated as a motor vehicle fueling station since the 1940's. Harbert Transportation used the site as a vehicle and fueling yard before selling the site to Durham Transportation in 1986. Durham used the site for similar activities.

The site is currently vacant. The site s zoned Commercial but nevertheless, all Risk-Based Screening for contaminants at the site were based on criteria for residential land use (residential screening levels are much more restrictive that commercial criteria). Detected 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 & Remedial Activities

The subject site was operated as a motor vehicle fueling station since the 1940's. In the 1960s Harbert Transportation purchased the site and operated it as a vehicle fueling and maintenance facility until 1986. In 1986, Durham Transportation of Austin, Texas purchased the property and operated the site as a fueling and maintenance facility until 1989. A number of environmental investigations and remedial actions have since occurred at the subject site and are documented in the list of environmental reports referenced at the end of this report. Environmental tasks included removal of the fueling facility installation, groundwater pumping and remedial excavation, delineation of soil and groundwater contamination including the installation of a number of groundwater monitoring wells which currently includes eight onsite and 2 off-site wells (Figure 2)

Underground Tank Closures and Initial Monitoring: In August 1989, four underground storage tanks (USTs) were removed from the site. Applied Geosystems, CTTS, and AGI-Technologies completed preliminary subsurface investigations and concluded that soil and groundwater beneath the subject site were impacted by petroleum hydrocarbons (PHCs). Reports indicate that soils excavated following the UST removals were backfilled within a plastic-lined excavations (CTTS, November

1, 1992). Documentation also indicates that two additional USTs located adjacent to dispensers removed in 1989 were pulled in the early 1950's, and that a sump located in the northern portion of the site contained petroleum hydrocarbon contamination (CTTS, November 27, 1990). In March 1990 the site structures were demolished and removed and the site has remained undeveloped and unoccupied since that time. CTTS records indicate quarterly monitoring continued through June 1993, and subsequently decreased to twice in 1994 (third and fourth quarters), once in 1995 (third quarter) and twice in 1996 (first and third quarters).

Groundwater Remediation: Between approximately December 1, 1992 and December 31, 1993 onsite groundwater pump and treat remediation operations were reportedly conducted by CTTS Inc. Monitoring Wells MW-5, 6, and 7 were set up to pump groundwater from the subsurface through three carbon canisters inline with each other to a holding tank and ultimately to the sanitary sewer.

Source Removal - Interim Remedial Action: Soil sampling from a number of exploratory borings and groundwater sampling during ongoing monitoring indicated that elevated concentrations of fuel contamination was present at the former location of the former UST facility removed in 1989 (source). Specifically, sampling confirmed that significant concentrations of petroleum hydrocarbon contamination remained at two isolated areas:

1. beneath the former dispensers (removed 1989) at a location which previously contained two USTs that were removed in the early 1950's, and,
2. beneath the former excavation pit (excavated in 1989) which was reportedly backfilled with the excavated material (CTTS, November 1, 1992).

Despite the presence of elevated petroleum hydrocarbons at the source, groundwater monitoring showed the plume was limited in lateral extent and had no fuel oxygenates including MTBE.

An Interim Remedial Action (IRA) which included removal of the residual petroleum hydrocarbon contamination was approved and in January 2002, six foot- diameter augers were used to drill out 40 foot shafts of contaminated soils from the excavation footprint (former excavation pit and the dispenser areas - see Figure 2). The excavation successfully removed approximately 600 yds^3 contaminated soil from the vadose zone, the soil/groundwater interface, the smear zone. In addition, 400 pounds of Oxygen Release Compound® (ORC) was added to the saturated zone to enhance the ability of aerobic microbes to degrade contaminants (WHA report; February 8, 2002). Fourteen soil samples (12 sidewall and 2 base) confirmed that the remaining source soil was removed to target cleanup levels (see table below):

Maximum IRA Soil Sample Results
All results in parts per million (mg/kg, ppm)

Identification	TPH-g	Benzene	Toluene	Ethyl-benzene	Xylenes
Highest Soil Sample Concentrations	34	0.041	0.014	0.12	0.6
Soil Cleanup Goal ESLs	100	0.044	2.9	3.3	1.5

- ESLs: Environmental Screening Levels, which were established by CRWQCB-SFBR

- This summary shows that residual soil concentrations are *below* ESLs.

Following source soil removal operations, the following data exists for the monitoring well network at the site:

- Groundwater concentrations in closest wells (MW-3, 5, 6, and 9) have continued to show generally decreasing concentration trendlines following source removal operations, although some normal oscillation in concentrations is apparent (see Table 1).

- The remaining upgradient and side gradient wells are now non-detect for constituents of concern and provide good definition regarding the lateral extent of contamination (wells MW-4, -7, -8, -11, and -12).

- Downgradient well MW-10 continues to show a continual decline in hydrocarbon concentrations (see Table 1).

Conclusions of Source Removal Activities: It is our opinion that the excavation of the soil contamination at the former underground tank locations, which included removal of fuel-impacted, saturated soils from the zone of fluctuating groundwater (smear zone), has significantly eliminated the primary source of ongoing groundwater contamination. Only one of the nine wells that make up the monitoring network currently contain elevated levels of Total Petroleum Hydrocarbons (TPH). Specifically, on-site well MW-9, located within 60 feet of the source, contained TPH-gas at a concentration of 1,100 parts per billion (ppb) and only one well, MW-5 - located only a few feet from the former fuel tank pit, contained low level detections of benzene (3.5 ppb, see Figure 3). All remaining wells contain only trace to non-detectable contaminant concentrations including downgradient well MW-10 located 175 feet from the source.

Proposed Risk-Based Cleanup Goals: A number of assessments of risk were completed to assess potential risk to human health and the environment using Risk-Based Cleanup Standards[1] on the basis that shallow groundwater beneath the site was not used as a drinking water resource and there were no sensitive receptors within close proximity to the site that could be potentially impacted by residual petroleum hydrocarbon contamination (PHC). Preliminary communication with Roger Brewer at California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB-SFBR) indicated that the revised site specific clean-up goals were sufficient and that it appeared that the site soil and groundwater concentrations were within the site clean-up goals (e-mail from Roger Brewer, April 18, 2003). A request for site closure was submitted in August 2003 which was subsequently denied in May 2004 in an ACEH Technical Memorandum requiring new clean-up goals and additional information (ACEH directive, dated May 13, 2004).

---

[1]: California Regional Water Quality Control Board, San Francisco Bay Region's publication: *Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater* (2002, revised 2003).

Subsequently, new cleanup goals for groundwater were submitted in the *Revised Site Conceptual Model* report dated July 30, 2004. The proposed cleanup goals were intended to be 10 times the State Maximum Contaminant Levels (MCLs) for drinking water with the exception of TPH which has no established MCL. This was in agreement with levels recommended by ACEH in the May 13, 2004 directive ("the goal of 10x the MCL would be considered a reasonable proposal" for a maximum plume concentration that may migrate beyond the boarders of the subject site, page 4, section 3). However, as requested in the ACEH directive dated December 20, 2004, we revised these proposed modified cleanup levels downward to be more conservative than MCLs for drinking water, and instead have based them on RWQCB-SFBR *Environmental Screening Levels.*

The modified cleanup levels listed below are site-specific concentrations proposed for this low-risk fuel release and are meant to achieve Basin Plan water quality objectives within a reasonable time period. The levels are to be the maximum plume concentrations at the property line of the subject site.

Table: **Proposed Cleanup Levels**
- all concentrations in ug/L (parts per billion, ppb) -

	TPH-gas	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
State MCL's for Drinking Water:	Not Established	1	100	300	1750	13
RWQCB-SFBR **Final ESLs** (basis)	100 (T&O)	1 (DWT)	40 (T&O)	30 (T&O)	13 (AHG)	5 (T&O)
Proposed Cleanup Levels (10 Times the ESLs)	1000	10	400	300	130	50

- **RWQCB-SFBR:** California Regional Water Quality Control Board, San Francisco Bay Region
- **Final ESL's=** "Final" Environmental Screening Levels, based on the lowest (most conservative) screening level (T&O, DWT, or AHG) established by RWQCB-SFBR for the protection of groundwater quality.
- **T&O=** Taste & Odor; **DWT=** Drinking Water Toxicity **AHG:** Aquatic Habitat Goal
- Proposed Cleanup Levels based on shallow groundwater being a potential groundwater resource.

Exposure pathways are limited and the risk to human health and the environment is considered insignificant due to the following conditions:

- Soil contamination has been satisfactorily remediated to health-based levels.
- Shallow groundwater contamination in access of proposed cleanup levels is limited to within the property boundaries and no documented shallow groundwater pumping occurs within 500 feet of the subject site which is well beyond the extent of the known plume limits.
- Deeper groundwater will be investigated during the current phase of drilling and sampling (*Workplan Addendum*, January 27, 2005).
- There is virtually no potential for indoor air impacts as: 1) there are no structures on the site; 2) the plume of dissolved contaminants in groundwater is aged gas (majority

of volatile compounds have degraded); 3) groundwater is encountered at relatively deep depths (30 feet bgs); and, 4) the source of shallow impacted soils has been removed and dissolved contaminants in groundwater are encountered below relatively low-permeability soils.

- In addition, the Tier 1 screening level for protection of indoor air under a residential exposure scenario is set at 1,900 ug/L (ppb) for benzene in groundwater (RWQCB-ESLs, Table E-1a).

Conclusions of Summary of Previous Investigations: Based on ACEH Technical Memorandum (ACEH, Dec 2, 2004), WHA has revised the groundwater clean-up goals to levels directed by Alameda County Environmental Health which are protective of a drinking water supply. Our *Revised Soil and Groundwater Investigation Workplan* (January 27, 2005) targets data gaps identified in the response to comments and text portions of our January 27, 2005 *Workplan Addendum* report.

GROUNDWATER MONITORING - FIRST QUARTER 2005

The groundwater monitoring event for the first quarter 2005 took place on March 23, 2005. 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) by EPA Method 8260. Per our *Workplan Addendum* dated January 27, 2005, groundwater samples collected from wells MW-3, 5, 8, 9, and 10 were additionally analyzed for Bio-parameters including ORP, methane, nitrate, sulfate, and dissolved ferrous iron.

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 rose an average of approximately 4.15 feet since the previous sampling event (September 23, 2005). Calculated groundwater elevations from the gauging data collected on March 23, 2005 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 March 23, 2005 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,
March 23, 2005
(µg/L, ppb)

Well ID	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	540	ND	ND	2.0	ND	ND
MW-4	ND	ND	ND	ND	ND	ND
MW-5	120	3.5	0.67	4.5	9.3	ND
MW-6	160	ND	ND	1.6	ND	ND
MW-7	ND	ND	ND	ND	ND	ND
MW-8	ND	ND	ND	ND	ND	ND
MW-9	1,100	< 1	< 1	48	31	< 6
MW-10	ND	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
MCL	1,000	1	150	700	1,750	5
RWQCB - SFBR **Final ESLs**	100 (T&O)	1 (DWT)	40 (T&O)	30 (T&O)	13 (AHG)	5 (T&O)
ACEH Proposed Cleanup Goals (10 times the ESLs)	1000	10	400	300	130	50

- **RWQCB-SFBR:** California Regional Water Quality Control Board, San Francisco Bay Region
- **Final ESL's**= "Final" Environmental Screening Levels, based on the lowest (most conservative) screening level (T&O, DWT, or AHG) established by RWQCB-SFBR for the protection of groundwater quality.
- **T&O**= Taste & Odor; **DWT**= Drinking Water Toxicity **AHG:** Aquatic Habitat Goal
- Proposed Cleanup Levels based on shallow groundwater being a potential groundwater resource.

Only well MW-5 contained a concentrations of benzene that marginally exceeded the proposed cleanup levels of 1 part per billion (ppb). Well MW-5 was the only well to be impacted with benzene this quarter.

Only well MW-9 contained a concentration of TPH-g that marginally exceeded the proposed cleanup levels set at 1,000 ppb. No other wells exceeded this goal.

No other PHCs exceed their respective proposed cleanup levels

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

ACEH considered reasonable proposed cleanup goals for contaminants that may migrate off-site to be no greater than 10 times that of the contaminants most conservative screening level. **All offsite wells exhibited no contaminant concentrations this quarter. Only on-site well MW-9 marginally exceeded the respective "proposed cleanup goals" of 1000 ppb TPH (g), with 1,100 ppb TPH (g) detected.**

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 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).

Biological Parameters

Monitoring wells MW-3, 5, 8, 9, and 10 were analyzed for bio-parameters during the recent groundwater monitoring event to provide further evidence of biodegradation. 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.

Summary of Bio-Parameter Groundwater Sample Analytical Results,
March 23, 2005

Well I.D.	ORP (mV)	Dissolved Oxygen (mg/L)	Methane (µg/ml)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)
MW-3	153	0.30	0.048	6.2	29	1.2
MW-5	196	0.36	0.027	5.1	35	0.30
MW-8	339	1.76	ND	0.89	48	ND
MW-9	237	0.21	0.017	1.4	22	ND
MW-10	167	0.23	ND	ND	1.8	ND
Laboratory Reporting / Detection Limit	NA	NA	0.010	0.2	0.5	0.1

NOTE: ORP and Dissolved Oxygen concentrations were measured in the field using a QED Model MP20 Flow Cell Meter.

During biodegradation certain electron acceptors such as dissolved oxygen, nitrate , and sulfate are consumed (i.e. reduced). As these particular electron acceptors are reduced as part of a microbially-catalyzed biodegradation process, an inverse correlation can be made between the contaminant and the electron acceptor (Buscheck & O'Reilly, 1995).

The evaluation of bio-parameters is intended to be qualitative. For instance, dissolved oxygen concentrations varying by > 2 ppm across a contaminant plume suggest the potential for aerobic biodegradation, and concentrations of alternative electron acceptors such as nitrate, sulfate, and ferrous iron varying more than several ppm may suggest that anaerobic process are also be contributing to the configuration of the contaminant plume (Buscheck & O'Reilly, 1995).

Bio-parameters obtained from clean upgradient well MW-8 are intended to provide some sense of site background concentrations, as this well has never been impacted with hydrocarbons. This well exhibits the highest D.O., ORP, and sulfate concentrations of the five transect wells included in the bio-parameter analysis, which should be expected as biodegradation of contaminants in not active in this well. Methane and ferrous iron concentrations in this well were not-detected at the laboratory's reporting / detection limit. Methane is a metabolic by-product of strongly anaerobic conditions (Buscheck & O'Reilly, 2002). The non-detect concentrations of these parameters can again be attributed to the lack of reducing biological activity. Contrary to all other biological parameters measured in well MW-8, the nitrate concentration is surprisingly low relative to all other wells in the transect. With the relatively non-reducing condition as indicated by all other parameters measured in this well, one would expect to have some of the highest nitrate concentrations.

On-site core impacted well MW-3, 5, and 9 exhibit comparable, and relatively lower concentrations of D.O., ORP, and sulfate relative to upgradient well MW-8. The relatively lower D.O.

concentrations, and detections of methane suggest that anaerobic biodegradation is occurring in the shallow aquifer surrounding these monitoring wells, as the environment for aerobic degradation appears to be limited in the necessary resources (i.e. D.O.). The detections of ferrous iron in wells MW-3, and 5 further suggests the activity of anaerobic bio-degradation, as ferric iron (Fe^{3+}) is used as an electron acceptor during anaerobic biodegradation of petroleum hydrocarbons (Buscheck & O'Reilly, 1995).

Down-gradient well MW-10 exhibits some of the lowest concentrations of D.O., ORP, nitrate, and sulfate in comparison to the other transect wells. These lower concentrations suggest that downgradient aquifer is experiencing anaerobic biodegradation. However, methane and ferrous iron were not detected in well MW-10, suggesting the contradiction that anaerobic processes are not active in this well. The lower concentrations of anaerobic biodegradation indicators may be a result of this wells position in the anoxic shadow of the on-site impacted wells.

Overall, the relative concentrations of biological parameters measured on March 23, 2005 indicate that natural attenuation of dissolved petroleum hydrocarbons via biological remediation is occurring at this site through both aerobic, and anaerobic processes.

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, 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 4.15 feet since the previous sampling event (September 2004).
- The groundwater flow direction on March 23, 2005 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 decreased by up to two orders of magnitude since they were last sampled in September 2004.

- Concentrations in downgradient on-site well MW-9 decreased slightly compared to when it was last sampled in September 2004.
- The concentration of TPH-g in onsite well MW-3 increased slightly from when it was last sampled in September 2004.
- Concentrations of dissolved PHCs in off-site monitoring well MW-10 were not detected this quarter.
- MTBE was not detected in any of the groundwater samples collected this quarter.
- TPH-g was detected at a concentration of 1,100 pb in MW-9, exceeding Cleanup Goals of 1000 ppb.
- Fuel Oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, tertiary Amyl Methyl Ether, and Ethanol) were not detected in any groundwater samples collected this quarter.
- No other PHCs were detected above their respective cleanup goals.
- Current and historic measurements of dissolved oxygen collected at the site indicate aerobic bioremediation is occurring in the PHC-impacted groundwater.
- Biological parameters collected this sampling event indicate that natural attenuation of dissolved petroleum hydrocarbons via biological remediation is occurring at this site through both aerobic, and anaerobic processes.

RECOMMENDATIONS

At this time we recommend:

- Responding to ACEH Comments included in their March 2, 2005 letter, including creating additional geologic cross-sections, an estimate of residual hydrocarbon mass, and evaluation of contaminant trends over time.
- Completing our approved *Workplan* and *Workplan Addendum* dated July 30, 2004, and January 27, 2005, respectively.
- Obtain regulatory closure.

SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER

If additional groundwater monitoring is required by ACEH, the following activities are scheduled for the third quarter 2005:

- Semi-annual groundwater monitoring according to the schedule directed by ACEH. 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

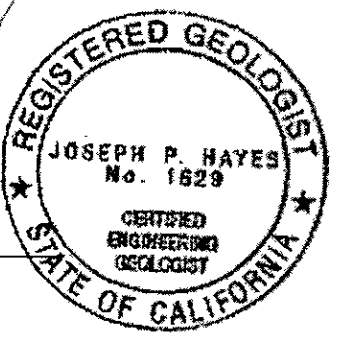
Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and proposals in this report are based on sampling and testing 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:_____
Jered Chaney
Staff Geologist



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
Appendix A	Field Methodology for Groundwater Monitoring and Field Data Forms
Appendix B	Certified Analytical Report - Groundwater Samples

Cc: 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

REFERENCES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REFERENCES (continued)

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

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

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

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

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

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

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

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

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*

Alameda County Health Care Services Agency, Environmental Health Services, May 13, 2004 (letter).- *Re: SWI, SCM and Case Closure Request for Durham Transportation, 19984 Meekland Avenue, Alameda County*

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

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

REFERENCES (continued)

Bushek, Tim, and Kirk O'Reilly, April 2002; *Guidelines to Demonstrate MTBE Natural Attenuation*, Chevron Texaco Research and Technology Company, Richmond, CA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REFERENCES (continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REFERENCES (continued)

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

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

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

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

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

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

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

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

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

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

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

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

Weber, Hayes and Associates, July 2, 2003. *Groundwater Monitoring Report - First Quarter 2004, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, August 22, 2003. *Fuel Leak Case Closure Request, Groundwater Monitoring Report - First Quarter 2004, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, July 30, 2004 *Revised Site Conceptual Model, Former Durham Transportation Facility, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, July 30, 2004 *Soil and Groundwater Investigation Workplan, Former Durham Transportation Facility, 19984 Meekland Avenue, Hayward, CA*

REFERENCES (continued)

Weber, Hayes and Associates, October 14, 2004 *Semi-Annual Groundwater Monitoring Report, Former Durham Transportation Facility, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, January 27, 2005 *Workplan Addendum including An Updated Site Conceptual Model, and A Revised Soil & Groundwater Investigation Workplan, Former Durham Transportation Facility, 19984 Meekland Avenue, Hayward, CA*

Table 1

Summary of Groundwater Elevation and PHC Analytical Data

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

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-3	55.44	20 - 40? ▲	03/23/05	20.16	35.28	540	ND	ND	2.0	ND	ND	ND	ND	ND	–	–	0.30	153
			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	21.96	33.48	240	0.94	2.5	12	11.7	ND	–	–	–	–	–	0.1	–
			12/18/01	23.59	31.85	270	1.6	1.7	13	5.4	ND	–	–	–	–	–	–	–
			09/20/01	24.16	31.28	380	1.7	2.6	32	8.9	ND	–	–	–	–	–	0.4	–
			06/20/01	23.55	31.89	760	4.4	2.4	62	23	ND*	–	–	–	–	–	–	–
			03/29/01	22.02	33.42	170	1.1	ND	10	1.6	ND	–	–	–	–	–	0.6	–
			01/12/01	23.41	32.03	310	2.4	2.2	4.4	10	ND	–	–	–	–	–	0.7	–
			09/27/00	23.09	32.35	430	ND	ND	44	ND	ND	–	–	ND	–	–	1	–
MW-4	55.71	20 - 40? ▲	03/23/05	20.45	35.26	ND	ND	ND	ND	ND	ND	ND	ND	ND	–	–	0.14	341
			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 ▲	03/23/05	20.14	35.89	120	3.5	0.67	4.5	9.3	ND	ND	ND	ND	–	–	0.36	196
			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	670	< 1.5*	–	–	–	–	–	0.05	-67
			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	360	11	9.4	28	62	ND	–	–	–	–	–	0.1	–
			12/18/01	23.15	32.88	780	21	12	86	94	ND*	–	–	–	–	–	–	–
			09/20/01	24.75	31.28	2,300	46	41	280	330	ND*	–	–	–	–	–	0.3	–
			06/20/01	24.15	31.88	6,500	120	130	740	940	ND*	–	–	–	–	–	–	–
			03/29/01	22.69	33.34	13,000	220	510	1000	2700	ND*	–	–	–	–	–	0.4	–
			01/12/01	23.97	32.06	1,100	62	40	150	290	ND*	–	–	–	–	–	0.3	–
			09/27/00	23.69	32.34	18,000	840	2.9	1200	3500	< 30	–	–	ND	–	–	0.4	–
MW-6	56.01	25 - 45 ▲	03/23/05	20.71	35.30	160	ND	ND	1.6	ND	ND	ND	ND	ND	–	–	0.19	166
			09/23/04	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	1,300	< 1.25	4.7	67	5.3	< 1.5*	–	–	–	–	–	0.53	233
			03/21/02	23.[illegible]	32.30	750	0.77	1.2	39	3.2	ND*	–	–	–	–	–	0.1	–
			12/18/01	24.16	31.85	3,[illegible]	33	8.7	320	110	< 1.5*	–	–	–	–	–	–	–
			09/20/01	24.72	31.29	2,500	[illegible]	3.6	240	94	ND*	–	–	–	–	–	0.3	–
			06/20/01	24.13	31.88	1,300	14	4.6	60	79	ND*	–	–	–	–	–	–	–
			03/29/01	22.56	33.45	610	2.2	ND	37	46	ND*	–	–	–	–	–	0.5	–
			01/12/01	23.97	32.04	2,300	16	3.5	290	33	ND*	–	–	–	–	–	0.5	–
			09/27/00	23.56	32.45	1,000	ND	4.3	200	17	ND	–	–	ND	–	–	0.5	–
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	–	–
RWQCB-SFBR Final ESLs (basis)						100 (T&O)	1 (DWT)	40 (T&O)	30 (T&O)	13 (AHG)	5 (T&O)	–	–	–	–	–	–	–
Proposed Cleanup Levels (10 times the ESLs)						1,000	10	400	300	130	50	–	–	–	–	–	–	–

Table 1

Summary of Groundwater Elevation and PHC Analytical Data

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

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	56.66	25 - 45																
			03/23/05	21.23	35.43	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	0.16	279
		▲	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	--
			06/20/01	24.68	31.98	430	2.4	0.96	30	9.7	ND*	--	--	--	--	--	--	--
			03/29/01	23.10	33.56	ND	ND	ND	ND	ND	ND	--	--	--	--	--	0.5	--
			01/12/01	24.49	32.17	1,600	13	0.86	150	35	ND*	--	--	--	--	--	0.5	--
			09/27/00	24.18	32.48	270	13	6.6	11	ND	ND	--	--	ND	--	--	0.5	--
MW-8	56.16	20 - 40																
			03/23/05	20.70	35.46	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	1.76	339
		▲	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	23.54	32.62	ND	ND	ND	ND	ND	ND	--	--	--	--	--	1.96	394
			03/21/02	22.51	33.65	ND	ND	ND	ND	ND	ND	--	--	--	--	--	2.4	--
			12/18/01	24.16	32.00	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--
			09/20/01	24.68	31.48	ND	ND	ND	ND	ND	ND	--	--	--	--	--	1.6	--
			06/20/01	24.09	32.07	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--
			03/29/01	22.56	33.60	ND	ND	0.8	ND	ND	ND	--	--	--	--	--	1.9	--
			01/12/01	23.93	32.23	ND	ND	ND	ND	ND	ND	--	--	--	--	--	2.1	--
			09/27/00	23.59	32.57	ND	ND	ND	ND	ND	ND	--	--	ND	--	--	1.9	--
MW-9	55.21	20 - 40																
			03/23/05	19.98	35.23	1,100	< 1	< 1	48	31	< 6	< 20	< 200	< 10	--	--	0.21	237
		▲	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*	--	--	--	--	--	0.08	-66
			03/21/03	22.17	33.04	5,900	190	24	470	630	< 5*	--	--	--	--	--	0.10	-84
			12/30/02	21.09	34.12	2,800	140	25	200	370	ND*	--	--	--	--	--	0.15	276
			08/27/02	23.69	31.52	310	27	2.5	20	20	ND*	--	--	--	--	--	0.18	154
			06/13/02	22.76	32.45	5,100	140	21	490	300	< 1.5*	--	--	--	--	--	0.14	135
			03/21/02	21.76	33.45	510	26	4.6	50	52	ND	--	--	--	--	--	0.1	--
			12/18/01	23.38	31.83	6,400	640	120	630	1300	< 1.5*	--	--	--	--	--	--	--
			09/20/01	23.94	31.27	3,400	270	38	390	430	ND*	--	--	--	--	--	0.3	--
			06/20/01	23.36	31.85	8,300	330	88	850	1700	< 0.6*	--	--	--	--	--	--	--
			03/29/01	21.61	33.60	1,600	110	14	240	150	ND*	--	--	--	--	--	0.4	--
			01/12/01	23.17	32.04	10,000	550	110	1200	2200	ND*	--	--	--	--	--	0.5	--
			09/27/00	22.90	32.31	1,000	40	6.7	110	55	ND	--	--	ND	--	--	0.5	--
MW-10	54.74	25 - 40																
			03/23/05	19.67	35.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	0.23	167
		▲	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	1,300	< 2.5	15	3.3	5	ND*	--	--	--	--	--	0.14	183
			06/13/02	22.56	32.18	1,700	0.77	6.2	3.3	2.9	< 0.3*	--	--	--	--	--	0.28	201
			03/21/02	21.53	33.21	1,500	ND	11	3.1	ND	ND*	--	--	--	--	--	0.1	--
			12/18/01	21.11	33.63	1,500	7.9	2.9	ND	ND	< 0.6*	--	--	--	--	--	--	--
			09/20/01	23.70	31.04	1,200	6	9.9	1.2	3.9	ND*	--	--	--	--	--	0.4	--
			06/20/01	23.17	31.57	810****	3	1.6	5.1	13	ND*	--	--	--	--	--	--	--
			03/29/01	21.63	33.11	600****	2	0.65	ND	0.72	ND	--	--	--	--	--	0.5	--
			01/12/01	22.99	31.75	530	3.7	1.9	2.1	4.5	ND	--	--	--	--	--	0.6	--
			09/27/00	22.72	32.02	380	ND	ND	ND	ND	ND	--	--	ND	--	--	0.4	--
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*	--	--
RWQCB-SFBR Final ESLs (basis):						*100 (T&O)*	*1 (DWT)*	*40 (T&O)*	*30 (T&O)*	*13 (AHG)*	*5 (T&O)*	--	--	--	--	--	--	--
Proposed Cleanup Levels (10 times the ESLs):						*1,000*	*10*	*400*	*300*	*130*	*50*	--	--	--	--	--	--	--

Table 1

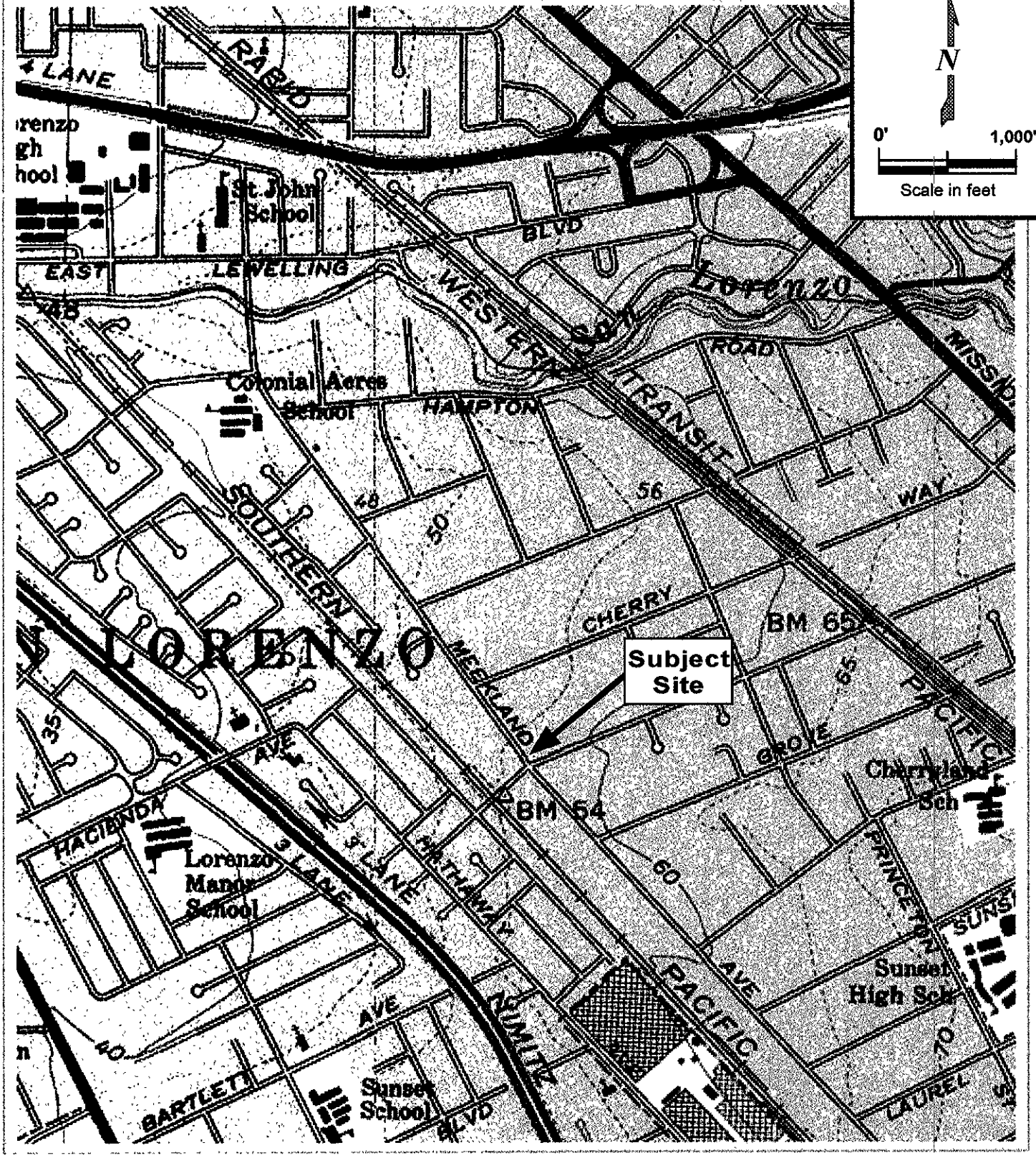
Summary of Groundwater Elevation and PHC Analytical Data

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

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 Gasoline (ug/L)*	*Volatile Organic Compounds 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)*	*Lead Scavengers 1,2-DCA (ug/L)*	*EDB (ug/L)*	*Dissolved Oxygen (mg/L)*	*Redox Potential (ORP) (mV)*
MW-11	55.20	25 - 40																
			03/23/05	19.93	35.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	–	–	0.28	347
		▲	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	23.87	31.33	ND	ND	ND	ND	ND	ND	–	–	–	–	–	0.4	–
			06/20/01	23.39	31.81	ND	ND	ND	ND	ND	ND	–	–	–	–	–	–	–
			03/29/01	21.84	33.36	ND	ND	4.5	ND	ND	ND	–	–	–	–	–	0.6	–
			01/12/01	23.21	31.99	ND	ND	2.1	ND	ND	ND	–	–	–	–	–	0.6	–
			09/27/00	22.43	32.77	63	ND	ND	ND	ND	ND	–	–	ND	–	–	0.6	–
MW-12	56.49	25 - 40																
			03/23/05	21.02	35.47	ND	ND	ND	ND	ND	ND	ND	ND	ND	–	–	1.28	323
		▲	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	–	–
RWQCB-SFBR Final ESLs (basis):						100 (T&O)	1 (DWT)	40 (T&O)	30 (T&O)	13 (AHG)	5 (T&O)	–	–	–	–	–	–	–
Proposed Cleanup Levels (10 times the ESLs):						1,000	10	400	300	130	50	–	–	–	–	–	–	–

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).
RWQCB-SFBR = California Regional Water Quality Control Board San Francisco Bay Region
Final ESLs = "Final" Environmental Screening Levels based on the lowest (most conservative) screening level (T&C, DWT or AHG) established by RWQCB-SFBR for the protection of groundwater quality
T&O = Taste & Odor DWT = Drinking Water Toxicity AHG = Aquatic Habitat Goal
Proposed Cleanup Levels = based on shallow groundwater being a potential groundwater resource
** 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 [illegible] Practical Quantitation Limit for TPH-g is 25 ppb. All groundwater samples collected from this date forward will be analyzed
All groundwater samples collected from this date forward will be analyzed by these EPA Methods

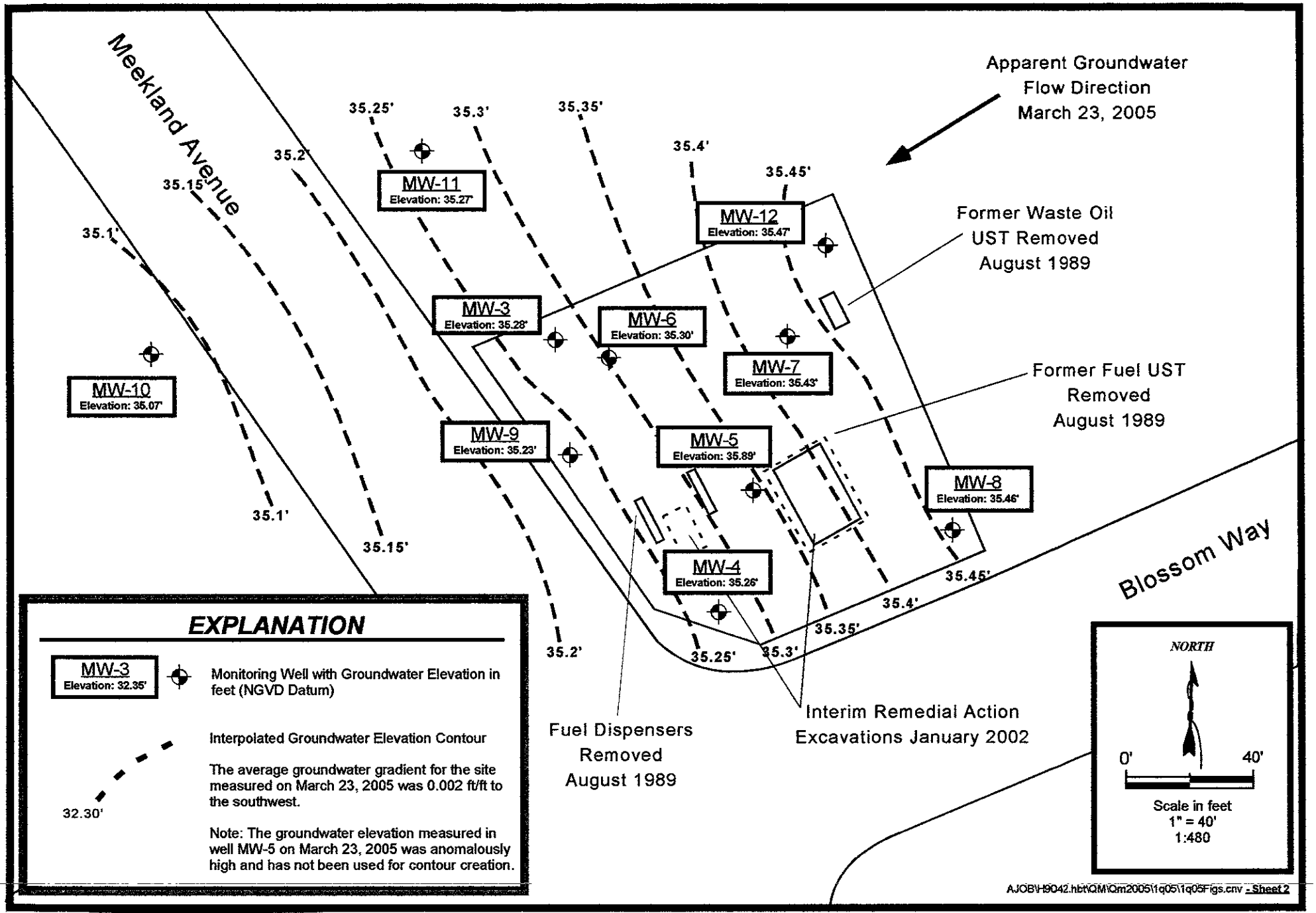


ajob\h9042\figures\F1-loc.CNV

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

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

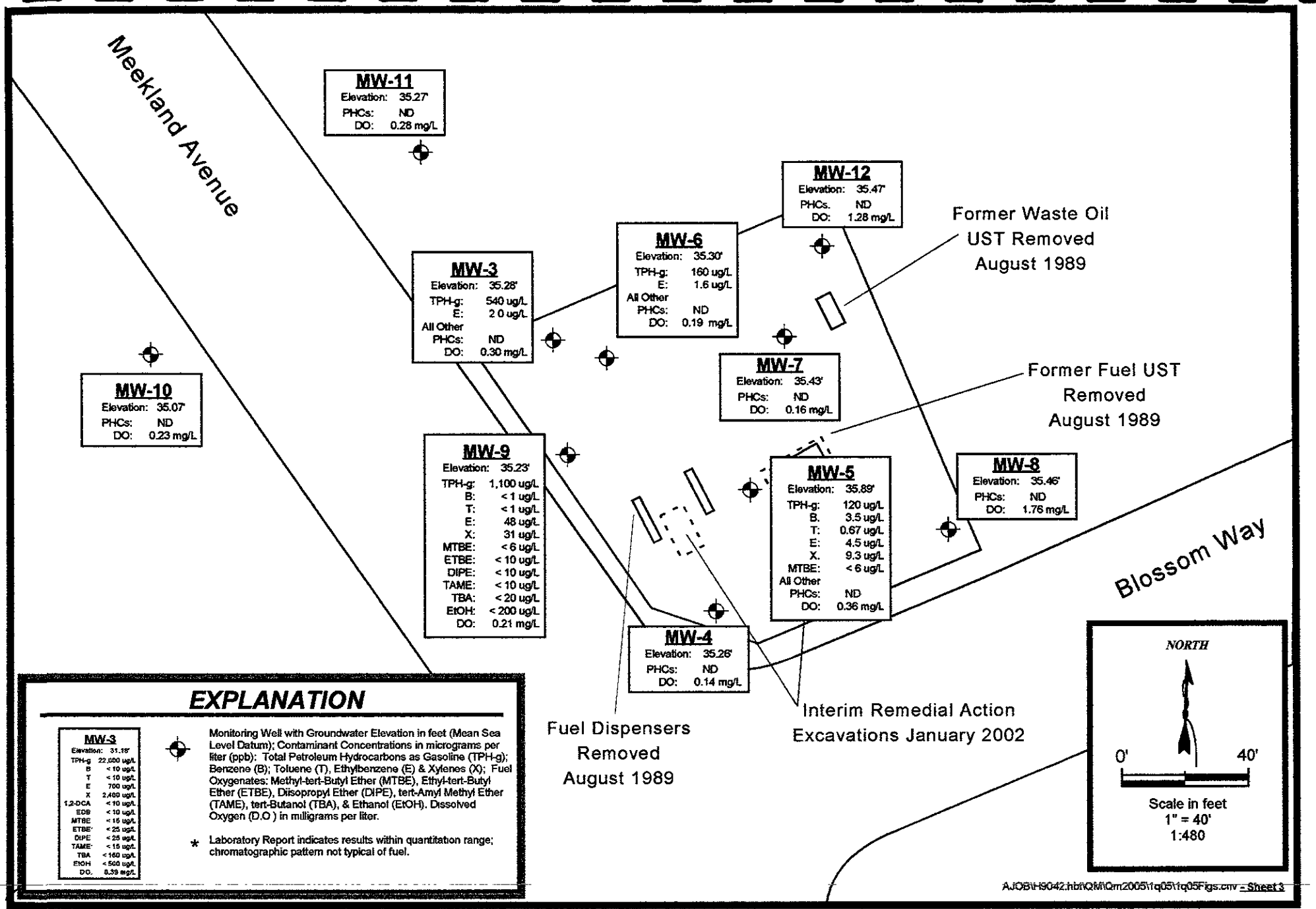
Figure 1
Job # H9042



Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with Groundwater Elevations
March 23, 2005
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 2
Project H9042

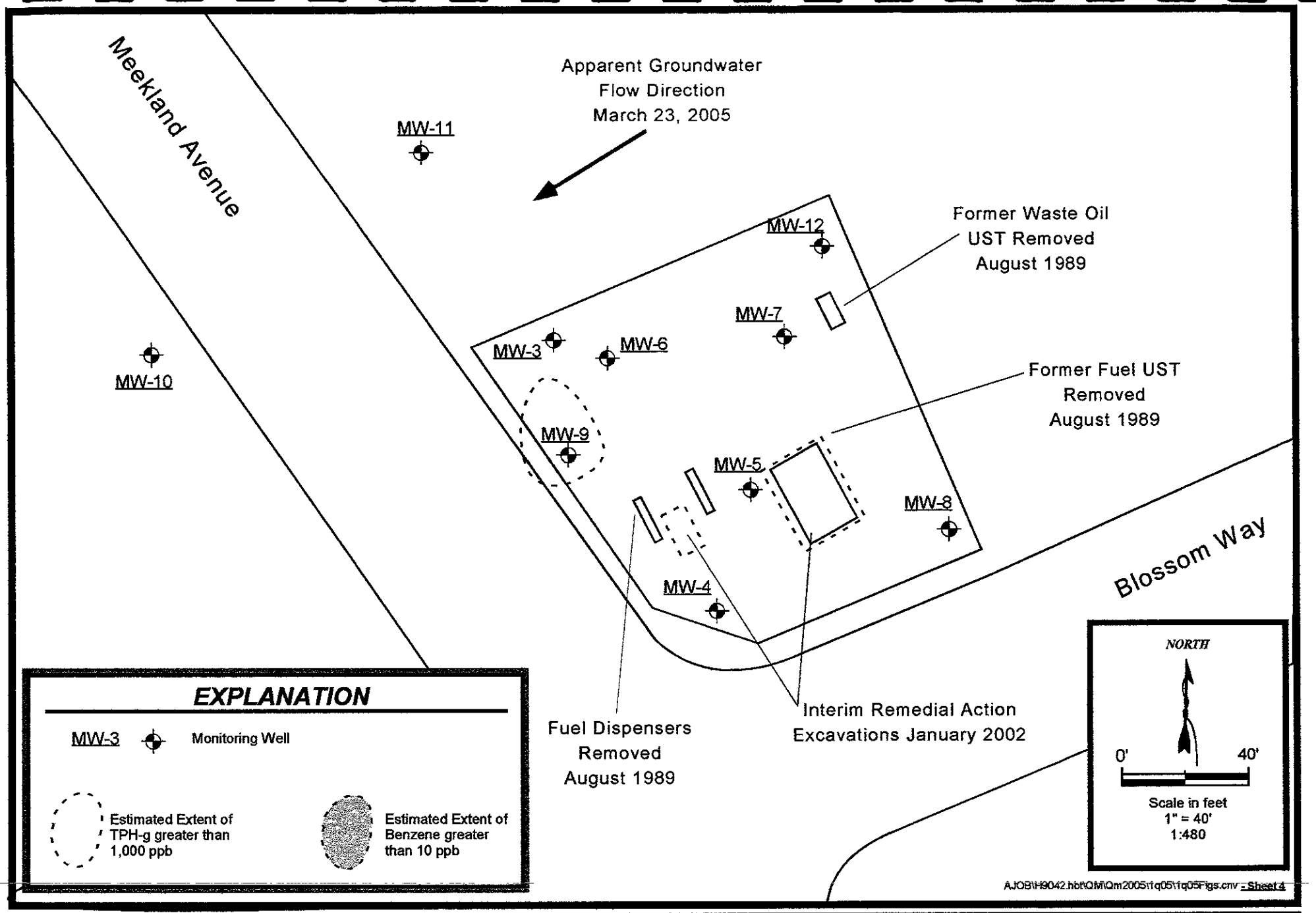


AJOB\H9042.hbf\QM\Qm2005\1q05\1q05Figs.cnv - Sheet 3

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with PHC Concentrations in Groundwater
March 23, 2005
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

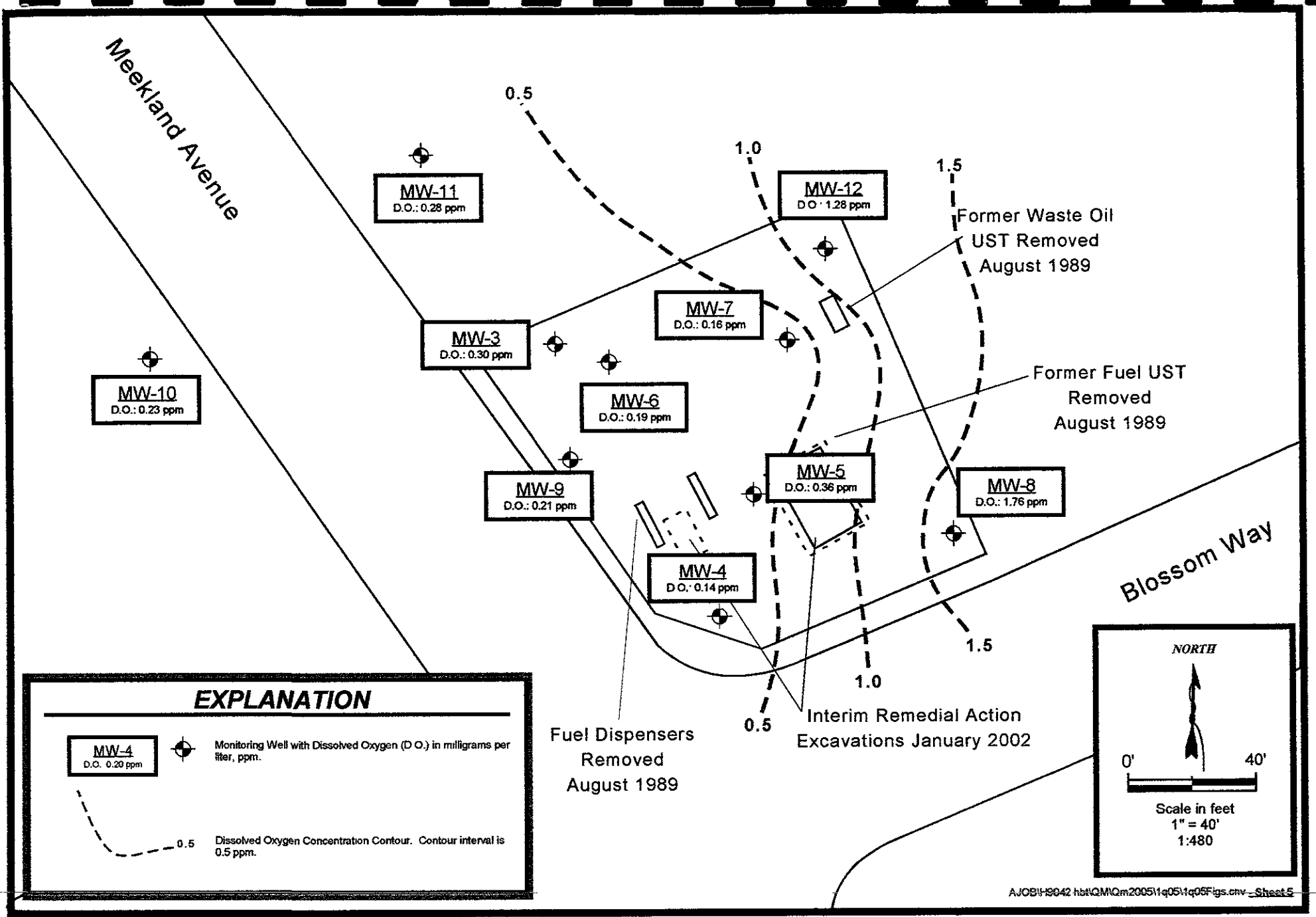
Figure 3
Project H9042



Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with Extent of TPH-g and Benzene in Groundwater, March 23, 2005
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 4
Project H9042



AJOB\H9042 hbt\QM\Qm2005\1q05\1q05Figs.cnv - Sheet 5

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with Dissolved Oxygen Contours
March 23, 2005
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 5
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.

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

Text Page 1 / 2
INDICATE ATTACHMENTS THAT APPLY
___ Site Map
all Data Sheets
___ Geologic Logs
___ Photo Sheets
___ COC's
___ Chargeable Materials

Client: **Harbert Transportation**				Date: **March 23, 2005**
Site Location: **19984 Meekland Avenue, Hayward, CA**				Study #: **H9042.Q**
Field Tasks: ☐ Drilling	☑ Sampling	☑ Other (see below):		Weather Conditions:
1st Quarter 2005 Groundwater Monitoring				Rain → to Partly Cloudy
Personnel / Company On-Site: **Jered Chaney (Weber, Hayes and Associates: WHA)**				

FIELD WORK PLANNING:

Performed on: **March 22, 2005**

Meet with Project Manager: [X] Yes [ ] No
Number of Wells to be Sampled: **10 wells, including depth to groundwater, DO, and ORP measurments in all wells.**
Sample Wells: **MW-3 through 12.**
Analyze for: **TPH-g, BTEX, Fuel Oxygenates by EPA Method GC-MS / 8269 in all wells, Bio-Parameters in wells MW-3, 5, 8, 9, & 10 (includes methane, nitrate, sulfate, & disolved ferrous iron).**
Proposed Sampling Date: **March 23, 2005**

ON-SITE FIELD WORK:

Arrive on-site at 0720 to conduct 1st Quarter 2005 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 containerized 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 = 11.70 C pH = 7.00 & 10.00 Electrical Conductivity = 3.49 mS/cm Barometric Pressure = 760 mmHg
D.O. % Saturation = 100% Oxidation Reduction Potential (ORP) = 498 mV

BEGIN SAMPLING WELLS:

MW-12, MW-8, MW-4, MW-11, MW-10, MW-7, MW-3, MW-9, MW-6, MW-5

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.

Jered Chaney 3/23/05
Signature of Field Personel & Date

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

Location	Groundwater Depth	Total Depth of Well	D.O. (mg/L)	ORP (mV)	Floating Product (comments)
MW-3	20.16'	40'	0.30	153	No FP; No Odor
MW-4	20.45'	40'	0.14	341	No FP; No Odor
MW-5	20.14'	45'	0.36	196	No FP; No Odor
MW-6	20.71'	45'	0.19	166	No FP; No Odor
MW-7	21.23'	40'	0.16	279	No FP; No Odor
MW-8	20.70'	40'	1.76'	339	No FP; No Odor
MW-9	19.98'	40'	0.21	237	No FP; Slight Odor
MW-10	19.67'	40'	0.23	167	No FP; Slight to Moderate Odor
MW-11	19.93'	40'	0.28	347	No FP; No Odor
MW-12	21.02'	40'	1.28	323	No FP; No Odor

JC
3/23/05

HOW MANY PURGE DRUMS WERE LEFT ON-SITE: 7 APPROXIMATE VOLUME (gallons): 200
CALL PURGE WATER REMOVAL SUBCONTRACTOR ON: 3/24/05
DRUMS WILL BE PURGED ON: ???

COMMENTS: Clearwater Environmental Management Inc. to pumpout purge water from 4 drums on Site.

3/23/05
Signature of Field Personel & Date

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 8/25/05

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

Samplers Name: *Jered 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~~, 1,2 ~~-DCA, EDB~~, ~~8260 Fuel Oxygenates~~, ~~Methanol, Ethanol~~

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

~~Bio Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron~~

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl

~~*2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber*~~

Well Number: MW-12 **Well Diameter:** 2" **with Casing Volume of:**

Depth to Water: 21.02' TOC (2" = (0.16 Gallon/Feet))

Well Depth: 40' BGS or TOC 4" = (0.65 Gallon/Feet)

Height W-Column: 18.98' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)

Volume in Well: 3.03 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)

Gallons to purge: 12.14 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: *Entech Analytical* **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
0811	0	16.15	0.655	3.27	6.24	307	Low: Clear, brown, Minor Fines	
0812	1	17.88	0.653	3.09	6.43	312	Low: Clear, Minor Fines	
0813	2	17.98	0.652	2.49	6.48	316	↓ ↓ ↓	
0814	3	18.04	0.653	1.98	6.47	318		
0815	5	18.11	0.650	1.39	6.49	320		
0817	7	18.18	0.650	1.28	6.48	323		✓
Stop:	Purge Complete; Parameters Stabilized.							
JR								
8/25/05								

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 = 18.98' x 0.8 = 15.18' - *(Well Depth)* 40' = *Depth to water* 24.82'

Time: 0813 1st measured depth to water, 21.09' 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: 0818 Sample ID: MW-12 Depth: 21.09' feet below TOC

Comments: No Floating Product ; No Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/23/05

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

Samplers Name: *Jered 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, ~~1,2- DCA, EDB~~, ~~8260 Fuel Oxygenates~~, Methanol, Ethanol

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

Bio Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl

2 x 40 mL VOA's, 1 x 250 mL Poly , 1 x 250 mL Amber

Well Number: MW-8
Depth to Water: 20.70' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 19.30' feet (well depth - depth to water)
Volume in Well: 12.54 gallons (casing volume X height)
Gallons to purge: 50.18 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 Analytical* **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
0839	0	14.40	0.633	3.66	6.38	343	Low: Clear, Trace Fines	
0840	1	18.00	0.658	2.19	6.80	341		
0840	2	18.21	0.669	1.38	6.80	341		
0842	4	18.28	0.663	0.86	6.79	340		
0845	8	18.28	0.654	1.33	6.77	339		
0848	12	18.24	0.650	1.31	6.72	339		
0850	14	18.30	0.651	1.36	6.72	339		✓
Stop: Purge Complete; Parameters Stabilized								
JC 3/23/05								

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 = 19.30' x 0.8 = 15.44' - (Well Depth) 40' = Depth to water 24.56'

Time: 0851 1st measured depth to water, 21.91' 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: 0851 Sample ID: MW-8 Depth: 21.91' feet below TOC

Comments: No Floating Product ; No Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/23/15

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

Samplers Name: *Jered 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~~ ~~1,2-DCA, EDB~~ ~~8260 Fuel Oxygenates~~ ~~Methanol~~, ~~Ethanol~~
~~TPH-diesel, TPH Motor Oil, TPH-Heating Oil~~
~~Bio Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron~~

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl
~~*2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber*~~

Well Number: MW-4 **Well Diameter:** 2" with Casing Volume of:

Depth to Water: 20.95' TOC — 2" = (0.16 Gallon/Feet)
Well Depth: 40' BGS or TOC — 4" = (0.65 Gallon/Feet)
Height W-Column: 19.05' feet (well depth - depth to water) — 5" = (1.02 Gallon/Feet)
Volume in Well: 3.12 gallons (casing volume X height) — 6" = (1.47 Gallon/Feet)
Gallons to purge: 12.51 gallons (volume X 4) — 8" = (2.61 Gallon/Feet)

Lab: *Entech Analytical* **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
0913	0	16.92	0.644	6.66	6.64	342	Light Clear, Trace Fines	
0914	1	18.68	0.650	2.28	6.66	343		
0915	2	18.77	0.649	1.36	6.65	344		
0916	3	18.85	0.649	0.91	6.67	344		
0917	4	18.84	0.681	0.77	6.66	344		
0918	6	18.89	0.653	0.52	6.68	343		
0921	10	18.93	0.656	0.15	6.63	341		
0922	11	18.94	0.654	0.14	6.62	341		✓
Stop!	Purge Complete; Parameters 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 = 19.55' x 0.8 = 15.64' - (Well Depth) 40' = Depth to water 24.36'

Time: 0923 1st measured depth to water, 21.52' 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 orginal 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: 0923 Sample ID: MW-4 Depth: 21.52' feet below TOC

Comments: No Floating Product; No Odor.

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/23/05

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

Samplers Name: *Jered 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~~ 1,2- ~~DCA, EDB~~, (8260 Fuel Oxygenates) ~~Methanol~~ (Ethanol)
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Bio Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron~~

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl
~~*2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber*~~

Well Number: MW-11
Depth to Water: 19.93' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 20.07' feet (well depth - depth to water)
Volume in Well: 3.21 gallons (casing volume X height)
Gallons to purge: 12.8 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 Analytical* **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
0953	0	15.86	0.839	7.24	6.46	343	Moderate; Brown, Med. Fines	
0958	1	17.53	0.851	2.30	6.52	344	Low; Clear, Minor Fines	
0959	2	17.68	0.851	1.50	6.51	346		
0959	3	17.76	0.861	0.93	6.52	346		
1000	4	17.81	0.849	0.63	6.52	347		
1002	6	17.84	0.848	0.40	6.50	347		
1004	8	17.86	0.848	0.28	6.48	347		✓
Stop: Purge Complete; Parameters Stabilized								
JC 3/23/05								

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 = 20.07' x 0.8 = 16.05' - (Well Depth) 40' = Depth to water 23.94'

Time: 1005 1st measured depth to water, 20.16' feet below TOC.
Time: ___ 1st measured depth to water, ___ feet below TOC.
Time: ___ 1st measured depth to water, ___ feet below TOC.

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

Sample Well

Time: 1005 Sample ID: MW-11 Depth: 20.16' feet below TOC

Comments: No floating product; No Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/23/05

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

Samplers Name: *Jered 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) ~~1,2-DCA, EDB~~, (8260 Fuel Oxygenates) Methanol (Ethanol)
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
Bio Parameters including (Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron)

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl
2 x 40 mL VOA's, 1 x 250 mL Poly , 1 x 250 mL Amber

Well Number: MW-10
Depth to Water: 19.67' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 20.33' feet (well depth - depth to water)
Volume in Well: 13.21 gallons (casing volume X height)
Gallons to purge: 52.85' 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 Analytical* **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
1023	0	17.48	0.761	6.27	6.43	289	Local Clear, Trace Fines	
1024	1	18.85	0.732	2.18	6.49	281		
1024	2	19.36	0.731	1.25	6.51	223		
1026	4	18.89	0.767	0.35	6.50	203		
1029	8	18.93	0.764	0.23	6.48	180		
1031	12	18.94	0.760	0.22	6.49	169		
1035	17	19.00	0.765	0.23	6.49	167		✓
Stop:	Purge Complete; Parameters Stabilized.							
JC 3/23/05								

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 = 20.33' x 0.8 = 16.26' - (Well Depth) 40' = Depth to water 23.73'

Time: 1037 1st measured depth to water, 19.79' 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: 1037 Sample ID: MW-10 Depth: 19.79' feet below TOC

Comments: No Floating Product; Slight to Moderate Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/23/05

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

Samplers Name: *Jered 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,) ~~1,2 - DCA, EDB,~~ (8260 Fuel Oxygenates) ~~Methanol,~~ (Ethanol)
~~TRH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Bio Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron~~

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl
~~*2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber*~~

Well Number: MW-7
Depth to Water: 21.23' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 18.77' feet (well depth - depth to water)
Volume in Well: 12.2 gallons (casing volume X height)
Gallons to purge: 48.8 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 Analytical* **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
1117	0	16.42	0.629	2.17	6.48	276	Lgt. Clear, Trace Fines	
1118	1	18.14	0.552	2.20	6.60	280	↓	
1119	2	18.33	0.654	1.17	6.61	281	↓	
1120	4	18.40	0.651	0.92	6.60	281	↓	
1124	8	18.44	0.653	0.26	6.59	281	↓	
1127	12	18.46	0.653	0.24	6.57	280	↓	
1129	15	18.48	0.654	0.16	6.56	279	↓	✓
Stop: Purge Complete; Parameters Stabilized.								
JC 3/23/05								

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 = 18.77' x 0.8 = 15.01' - (Well Depth) 40' = Depth to water 24.99'

Time: 1130 1st measured depth to water, 21.91' 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: 1130 Sample ID: MW-7 Depth: 21.91' feet below TOC

Comments: No floating product; No Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 8/23/05

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

Samplers Name: *Jered 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) ~~1,2 DCA, EDB, 8260 Fuel Oxygenates~~ ~~Methanol~~, (Ethanol)
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
Bio Parameters including (Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron)

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl
2 x 40 mL VOA's, 1 x 250 mL Poly , 1 x 250 mL Amber

Well Number: MW-3
Depth to Water: 20.16 TOC
Well Depth: 40' BGS or TOC
Height W-Column: 19.84' feet (well depth - depth to water)
Volume in Well: 3.17 gallons (casing volume X height)
Gallons to purge: 12.69 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 Analytical* **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
1151	0	17.15	0.350	6.76	6.47	263	Low; Clear, Trace fines	
1152	1	18.46	0.757	2.55	6.55	229		
1152	2	18.58	0.750	1.11	6.59	216		
1154	4	18.65	0.746	0.40	6.61	183		
1156	6	18.69	0.746	0.24	6.62	161		
1157	8	18.68	0.744	0.30	6.60	153		✓
Stop: Purge Complete; Parameters Stabilized								
JC								
8/23/05								

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 = 19.84' x 0.8 = 15.87' - (Well Depth) 40' = Depth to water 24.13'

Time: 1158 1st measured depth to water, 20.23' 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____
Time: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No____

Sample Well

Time: 1158 Sample ID: MW-3 Depth: 20.23 feet below TOC

Comments: No Floating Product; No Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/23/05

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

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 (circle all that apply):

~~TPH-gas~~, BTEX, MTBE, ~~1,2- DCA, EDB~~, (8260 Fuel Oxygenates) ~~Methanol~~, (Ethanol)
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
Bio Parameters including (Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron)

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl
2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber

Well Number: MW-9
Depth to Water: 19.98' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 20.02' feet (well depth - depth to water)
Volume in Well: 13.01 gallons (casing volume X height)
Gallons to purge: 52.0 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 Analytical* **Transportation:** *Deliver*

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Parameters Stabilized
1224	0	17.90	0.664	6.34	6.72	280	Light Clear, Trace Fines	
1225	1	18.10	0.619	1.82	6.78	238	↓	
1226	2	19.93	0.613	0.88	6.78	274	↓	
1228	4	19.08	0.610	0.40	6.81	220	↓	
1231	8	19.16	0.630	0.21	6.74	261	↓	
1233	12	19.21	0.596	0.13	6.84	234	↓	
1236	16	19.25	0.585	0.21	6.84	237	↓	✓
Stop! Purge Complete; Parameters Stabilized								
JC 3/23/05								

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 = 20.02' x 0.8 = 16.01' - (Well Depth) 40' = Depth to water 23.98'

Time: 1237 1st measured depth to water, 20.57' 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: ____ 1st measured depth to water, ____ feet below TOC. Is well within 80% of orginal well casing volume: Yes ~~JC~~ No____

Sample Well

Time: 1237 Sample ID: MW-9 Depth: 20.57' feet below TOC

Comments: No Floating product; Slight Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 3/28/05

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

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, ~~1,2- DCA, EDB~~, 8260 Fuel Oxygenates, ~~Methanol~~, (Ethanol)

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

~~Bio-Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron~~

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl

~~*2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber*~~

Well Number: MW-6

Depth to Water: 20.71' TOC

Well Depth: 40' BGS or TOC

Height W-Column: 19.29' feet (well depth - depth to water)

Volume in Well: 12.53 gallons (casing volume X height)

Gallons to purge: 50.18 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 Analytical* **Transportation:** *Deliver*

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Parameters Stabilized
1308	0	17.11	0.599	7.85	6.45	278	Lots Clear, Minor Fines	
1309	1	18.34	0.639	1.31	6.52	262		
1310	2	18.50	0.642	0.80	6.52	254		
1311	4	18.75	0.568	0.51	6.53	246		
1314	8	19.00	0.414	2.32	6.53	245		
1316	12	19.03	0.432	2.60	6.53	226		
1325	25	19.15	0.666	0.34	6.54	175		
1327	29	19.14	0.689	0.19	6.53	166		✓
Stop: Purge Complete; Parameters 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 = 19.29' x 0.8 = 15.43' - (Well Depth) 40' = Depth to water 24.56'

Time: 1328 1st measured depth to water, 21.25' 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: 1328 Sample ID: MW-6 Depth: 21.25' feet below TOC

Comments: No floating product; No Odor

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Name/No.: *Harbert Transportation / H9042.Q* **Date:** 8/23/05

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 (circle all that apply):

(TPH-gas, BTEX, MTBE, ~~1,2 - DCA, EDB,~~ 8260 Fuel Oxygenates) Methanol Ethanol
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
Bio Parameters including: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron

Number and Types of Bottle Used:

3 x 40 mL VOA's w/ HCl

2 x 40 mL VOA's, 1 x 250 mL Poly, 1 x 250 mL Amber

Well Number: MW-5
Depth to Water: 20.14' TOC
Well Depth: 45' BGS or TOC
Height W-Column: 24.86' feet (well depth - depth to water)
Volume in Well: 16.15 gallons (casing volume X height)
Gallons to purge: 64.63 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 Analytical* **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
1406	0	18.14	0.057	9.48	6.81	271	Low: Clear, brown, Minor Fines	
1407	1	18.56	0.057	9.01	6.80	272	↓ ↓ ↓	
1410	5	18.69	0.071	8.45	6.84	272	↓ ↓ ↓	
1413	10	18.64	0.114	7.36	6.79	271	Low: Clear, Minor Fines	
1416	15	18.56	0.282	4.32	6.74	276	↓ ↓ ↓	
1423	25	18.64	0.278	1.78	6.66	236	↓ ↓ ↓	
1434	45	18.65	0.356	0.36	6.71	196	↓ ↓ ↓	✓
Stop: Purge Complete; Parameters Stabilized.								
JC 8/23/05								

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 = 24.86' x 0.8 = 19.88' - (Well Depth) 45' = Depth to water 25.12'

Time: 1436 1st measured depth to water, 34.30' feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ✓
Time: 1502 1st measured depth to water, 24.61' 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: 1502 Sample ID: MW-5 Depth: 24.61' feet below TOC

Comments: No floating product; No 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 Chaney
Weber, Hayes and Associates
120 Westgate Drive
Watsonville, CA 95076

Certificate ID: 42929 - 3/31/2005 8:54:17 AM

Order:	42929	**Date Collected:**	3/23/2005
Project Name:	Harbert Transportation	**Date Received:**	3/23/2005
Project Number:	H9042.Q	**P.O. Number:**	H9042.Q

Subcontract Report

On March 23, 2005, samples were received under chain of custody for analysis. Entech subcontacted this work as listed below.

Matrix	Subcontract information
Liquid	Methane - Air Toxics LTD

Results and turn around time for subcontracted work is completely under control of the subcontract laboratory.
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific
E-mail to:samplereceiving@airtoxics.com

@ AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0503458

Work Order Summary

CLIENT:	Mr. Simon Hague Entech Analytical Labs, Inc 3334 Victor Ct Santa Clara, CA 95054	**BILL TO:**	Ms. Laurie Glantz-Murphy Entech Analytical Labs, Inc 3334 Victor Ct Santa Clara, CA 95054
PHONE:	408-588-0200	**P.O. #**	42929
FAX:	408-588-0201	**PROJECT #**	42929
DATE RECEIVED:	03/24/2005	**CONTACT:**	Taryn Badal
DATE COMPLETED:	03/30/2005		

FRACTION #	NAME	TEST
01A	MW-3	Mod. RSK-175
01AA	MW-3 Duplicate	Mod. RSK-175
02A	MW-5	Mod. RSK-175
03A	MW-8	Mod. RSK-175
04A	MW-9	Mod. RSK-175
05A	MW-10	Mod. RSK-175
06A	Lab Blank	Mod. RSK-175
07A	LCS	Mod. RSK-175

CERTIFIED BY: _____ DATE: 03/30/05

Laboratory Director

Certification numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified RSK 175
Entech Analytical Labs, Inc
Workorder# 0503458

Five VOA Vial-40 mL samples were received on March 24, 2005. The laboratory performed analysis via Modified RSK 175 for Methane using GC/FID. The method involves placing an aliquot of the sample in a headspace vial. The vial is then placed into HP7694 Headspace Autosampler equipped with oven, shaker and 1 mL sample loop. Sample is incubated and then equilibrated at 40°C for 15 minutes with high agitation. Finally, a direct injection of the headspace is performed. See the data sheets for the reporting limits for each compound.

Requirement	*RSK 175*	*ATL Modifications*
Sample Collection	Collect sample in 60 mL crimp-top vial.	Collect sample in 40 mL VOA vial.
Headspace Generation	Headspace is generated in 60 mL sample vial by displacing volume of liquid with Helium. The amount of liquid should be 10% of sample volume in bottle, up to 10 mL.	5.0 mL of sample is displaced with 5.0 mL Nitrogen and transferred to a Nitrogen purged and capped autosampler vial. Headspace is then generated in the autosampler vial.
Sample Preparation	Sample is shaken 5 min. to equilibrate analyte between headspace and liquid phase.	Prior to injection, autosampler shakes sample for 15 min. while heating to 40°C.
Headspace Injection	Syringe injection of 300 mL headspace into GC.	Autosampler pressurizes sample to fill 1.0 mL loop with headspace sample.
Calibration and Quantitation	Direct injections of gas phase standards are used to obtain a Calibration Curve. Henry's Law is used to calculate mg of gas per Liter of water. Calculation requires recording total volume of serum bottle and headspace, and sample temperature.	Calibration standards are prepared by addition of a gaseous spike solution to clean water. Response factors are calculated for each level of a multi point calibration, and the mean is used to calculate quantitation for each target analyte.
Initial Calibration Curve (ICAL)	Linear regression	% RSD </= 30%, use average RF to quantify results
Lab Blanks	Blank subtraction is performed.	No blank subtraction; Lab Blank must be less than the Reporting Limit.
Specified Detectors	FID or ECD	FID or TCD

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4±2 °C. Coolant in the form of blue ice was present. The discrepancy was noted

in the Sample Receipt Confirmation email/fax and the analysis proceeded.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AIR TOXICS LTD.

SAMPLE NAME: MW-3

ID#: 0503458-01A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032906	Date of Collection:	3/23/05
Dil. Factor:	1.00	Date of Analysis:	3/29/05 04:31 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.048

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: MW-3 Duplicate

ID#: 0503458-01AA

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032907	Date of Collection:	3/23/05
Dil. Factor:	1.00	Date of Analysis:	3/29/05 04:52 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.052

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: MW-5

ID#: 0503458-02A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032908	Date of Collection:	3/23/05
Dil. Factor:	1.00	Date of Analysis:	3/29/05 05:13 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.027

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: MW-8

ID#: 0503458-03A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032909	Date of Collection:	3/23/05
Dil. Factor:	1.00	Date of Analysis:	3/29/05 05:35 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: MW-9

ID#: 0503458-04A

MODIFIED METHOD RSK-175 GC/FID

File Name:	70329I0	Date of Collection:	3/23/05
Dil. Factor:	1.00	Date of Analysis:	3/29/05 05:56 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.017

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: MW-10

ID#: 0503458-05A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032911	Date of Collection: 3/23/05	
Dil. Factor:	1.00	Date of Analysis: 3/29/05 06:17 PM	

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0503458-06A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032903	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 3/29/05 03:27 PM	

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected

Container Type: NA - Not Applicable

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0503458-07A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7032902	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis:	3/29/05 02:20 PM

Compound	%Recovery
Methane	74

Container Type: NA - Not Applicable

0503458

Entech Analytical Labs, Inc.

CA ELAP # 1-2346

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

Subcontract Chain of Custody

Subcontract Lab:	Entech Project Name:	Date Sent:	Due Date:	PO Number:
Air Toxics LTD	42929	3/23/05	3/30/05	42929

Entech Sample Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time	Bottle Type	Preservative
01A 42929-001	MW-3	Liquid	Methane - Air Toxics LTD	3/23/200	11:58		
02A 42929-002	MW-5	Liquid	Methane - Air Toxics LTD	3/23/200	15:02		
03A 42929-003	MW-8	Liquid	Methane - Air Toxics LTD	3/23/200	8:51		
04A 42929-004	MW-9	Liquid	Methane - Air Toxics LTD	3/23/200	12:37		
05A 42929-005	MW-10	Liquid	Methane - Air Toxics LTD	3/23/200	10:17		

CUSTODY SEAL INTACT?
Y N NONE TEMP 8.6°C

Relinquished By:	Received By:	Date:	Time:
Joseph Machado	California Overnight	03-23-05	1830
Relinquished By:	Received By	Date:	Time:
	Laura A. Thomas ATL.	3/24/05	9:10
Relinquished By:	Received By	Date:	Time:

Cal Over B100803744453

Entech Analytical Labs, Inc.

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

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

Certificate ID: 42929 - 3/30/2005 5:58:55 PM

Order Number: 42929
Project Name: Harbert Transportation
Project Number: H9042.Q

Date Received: 3/23/2005 4:27:55 PM
P.O. Number: H9042.Q

Certificate of Analysis - Final Report

Note: Subcontracted work will follow under separate cover.

On March 23, 2005, 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	
	Iron, Ferrous-Diss	SM 3500 - Fe	
	Nitrate as N	EPA 300.0	
	Subcontract	Subcontract	Methane - Air Toxics LTD
	Sulfate by IC	EPA 300.0	
	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,

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-001 **Sample ID: MW-3** **Matrix:** Liquid **Sample Date:** 3/23/2005 11:58 AM

Method: EPA 300.0 - Ion Chromatography

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	6.2		1	0.2	mg/L	N/A	N/A	03/23/2005	WIC050323
Sulfate	29		1	0.5	mg/L	N/A	N/A	03/23/2005	WIC050323

Analyzed by: EQueja
Reviewed by: DQUEJA

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	2.0		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105	75 - 125
Dibromofluoromethane	108	75 - 125
Toluene-d8	110	75 - 125

Analyzed by: TAF
Reviewed by: MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	540		1	25	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.2	75 - 125
Dibromofluoromethane	95.2	75 - 125
Toluene-d8	96.7	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

Method: SM 3500 - Fe - Ferrous Iron

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Iron, Ferrous	1.2		2	0.2	mg/L	N/A	N/A	03/25/2005	WFE050325

Analyzed by: Rlazaro
Reviewed by: DQUEJA

Detection Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
DF = Dilution and/or Prep Factor including sample volume adjustments.

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-002 **Sample ID: MW-4** **Matrix:** Liquid **Sample Date:** 3/23/2005 9:23 AM

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	107	75 - 125
Dibromofluoromethane	107	75 - 125
Toluene-d8	111	75 - 125

Analyzed by: TAF
Reviewed by: MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98 6	75 - 125
Dibromofluoromethane	95.2	75 - 125
Toluene-d8	96.3	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

Detection Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
DF = Dilution and/or Prep Factor including sample volume adjustments.

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-003 **Sample ID: MW-5** **Matrix:** Liquid **Sample Date:** 3/23/2005 3:02 PM

Method: EPA 300.0 - Ion Chromatography

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	5.1		1	0.2	mg/L	N/A	N/A	03/23/2005	WIC050323
Sulfate	35		1	0.5	mg/L	N/A	N/A	03/23/2005	WIC050323

Analyzed by: EQueja
Reviewed by: DQUEJA

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	3.5		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Toluene	0.67		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	4.5		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	9.3		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105	75 - 125
Dibromofluoromethane	109	75 - 125
Toluene-d8	110	75 - 125

Analyzed by TAF
Reviewed by MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	120		1	25	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.9	75 - 125
Dibromofluoromethane	96.2	75 - 125
Toluene-d8	95.5	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

Method: SM 3500 - Fe - Ferrous Iron

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Iron, Ferrous	0.30		1	0.1	mg/L	N/A	N/A	03/25/2005	WFE050325

Analyzed by: Rlazaro
Reviewed by: DQUEJA

Detection Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
DF = Dilution and/or Prep Factor including sample volume adjustments

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-004 **Sample ID:** MW-6 **Matrix:** Liquid **Sample Date:** 3/23/2005 1:28 PM

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method:* EPA 5030B - *Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	1.6		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	106	75 - 125
Dibromofluoromethane	111	75 - 125
Toluene-d8	110	75 - 125

Analyzed by Tfulton
Reviewed by MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.9	75 - 125
Dibromofluoromethane	98.0	75 - 125
Toluene-d8	95.7	75 - 125

Analyzed by Tfulton
Reviewed by MTU

Detection Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
DF = Dilution and/or Prep Factor including sample volume adjustments.

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-005 **Sample ID: MW-7** **Matrix:** Liquid **Sample Date:** 3/23/2005 11:30 AM

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	103	75 - 125
Dibromofluoromethane	109	75 - 125
Toluene-d8	110	75 - 125

Analyzed by: TAF
Reviewed by. MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	65.4***	75 - 125
Dibromofluoromethane	96.8	75 - 125
Toluene-d8	95.5	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-006 **Sample ID: MW-8** **Matrix:** Liquid **Sample Date:** 3/23/2005 8:51 AM

Method: EPA 300.0 - Ion Chromatography

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	0.89		1	0.2	mg/L	N/A	N/A	03/23/2005	WIC050323
Sulfate	48		1	0 5	mg/L	N/A	N/A	03/23/2005	WIC050323

Analyzed by. EQueja
Reviewed by. DQUEJA

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	106	75 - 125
Dibromofluoromethane	109	75 - 125
Toluene-d8	109	75 - 125

Analyzed by. TAF
Reviewed by: MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.5	75 - 125
Dibromofluoromethane	96.3	75 - 125
Toluene-d8	95.0	75 - 125

Analyzed by: Tfulton
Reviewed by MTU

Method: SM 3500 - Fe - Ferrous Iron

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Iron, Ferrous	ND		1	0.1	mg/L	N/A	N/A	03/25/2005	WFE050325

Analyzed by: Rlazaro
Reviewed by. DQUEJA

Detection Limit = Detection Limit for Reporting
ND = Not Detected at or above the Detection Limit
DF = Dilution and/or Prep Factor including sample volume adjustments.

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-007 **Sample ID: MW-9** **Matrix:** Liquid **Sample Date:** 3/23/2005 12:37 PM

Method: EPA 300.0 - Ion Chromatography

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	1.4		1	0.2	mg/L	N/A	N/A	03/23/2005	WIC050323
Sulfate	22		1	0 5	mg/L	N/A	N/A	03/23/2005	WIC050323

Analyzed by: EQueja
Reviewed by. DQUEJA

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		2	1	µg/L	N/A	N/A	03/25/2005	WMS2050325
Toluene	ND		2	1	µg/L	N/A	N/A	03/25/2005	WMS2050325
Ethyl Benzene	48		2	1	µg/L	N/A	N/A	03/25/2005	WMS2050325
Xylenes, Total	31		2	1	µg/L	N/A	N/A	03/25/2005	WMS2050325
Methyl-t-butyl Ether	ND		2	6	µg/L	N/A	N/A	03/25/2005	WMS2050325
Note: Methyl-t-butyl Ether is being reported to the MDL.									
Ethyl-t-butyl Ether	ND		2	10	µg/L	N/A	N/A	03/25/2005	WMS2050325
tert-Butanol (TBA)	ND		2	20	µg/L	N/A	N/A	03/25/2005	WMS2050325
Diisopropyl Ether	ND		2	10	µg/L	N/A	N/A	03/25/2005	WMS2050325
tert-Amyl Methyl Ether	ND		2	10	µg/L	N/A	N/A	03/25/2005	WMS2050325
Ethanol	ND		2	200	µg/L	N/A	N/A	03/25/2005	WMS2050325

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	106	75 - 125
Dibromofluoromethane	104	75 - 125
Toluene-d8	110	75 - 125

Analyzed by: TAF
Reviewed by: MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	1100		2	50	µg/L	N/A	N/A	03/25/2005	WMS2050325

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.8	75 - 125
Dibromofluoromethane	92.5	75 - 125
Toluene-d8	95.6	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

Method: SM 3500 - Fe - Ferrous Iron

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Iron, Ferrous	ND		1	0.1	mg/L	N/A	N/A	03/25/2005	WFE050325

Analyzed by: Rlazaro
Reviewed by DQUEJA

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-008 **Sample ID: MW-10** **Matrix:** Liquid **Sample Date:** 3/23/2005 10:37 AM

Method: EPA 300.0 - Ion Chromatography

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Nitrate as N	ND		1	0.2	mg/L	N/A	N/A	03/23/2005	WIC050323
Sulfate	1.8		1	0 5	mg/L	N/A	N/A	03/23/2005	WIC050323

Analyzed by EQueja
Reviewed by DQUEJA

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0 5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	103	75 - 125
Dibromofluoromethane	110	75 - 125
Toluene-d8	112	75 - 125

Analyzed by. TAF
Reviewed by MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.6	75 - 125
Dibromofluoromethane	97.3	75 - 125
Toluene-d8	97 1	75 - 125

Analyzed by: Tfulton
Reviewed by. MTU

Method: SM 3500 - Fe - Ferrous Iron

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Iron, Ferrous	ND		1	0 1	mg/L	N/A	N/A	03/25/2005	WFE050325

Note: Samples were filtered and preserved in the lab upon receipt (3/23/05)

Analyzed by Rlazaro
Reviewed by. DQUEJA

Detection Limit = Detection Limit for Reporting.
ND = Not Detected at or above the Detection Limit.
DF = Dilution and/or Prep Factor including sample volume adjustments.

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-009 **Sample ID: MW-11** **Matrix:** Liquid **Sample Date:** 3/23/2005 10:05 AM

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: *EPA 5030B - Purge-and-Trap for Aqueous Samples*

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	03/24/2005	WMS2050324
Toluene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	*104*	75 - 125
Dibromofluoromethane	110	75 - 125
Toluene-d8	110	75 - 125

Analyzed by: TAF
Reviewed by: MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	*95.7*	75 - 125
Dibromofluoromethane	97.4	75 - 125
Toluene-d8	95.9	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

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: 3/23/2005
P.O. Number: H9042.Q
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 42929-010 **Sample ID: MW-12** **Matrix:** Liquid **Sample Date:** 3/23/2005 8:18 AM

Method: EPA 8260B - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324
Toluene	ND		1	0 5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl Benzene	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Xylenes, Total	ND		1	0.5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Methyl-t-butyl Ether	ND		1	1	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethyl-t-butyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
tert-Butanol (TBA)	ND		1	10	µg/L	N/A	N/A	03/24/2005	WMS2050324
Diisopropyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
ert-Amyl Methyl Ether	ND		1	5	µg/L	N/A	N/A	03/24/2005	WMS2050324
Ethanol	ND		1	100	µg/L	N/A	N/A	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
-Bromofluorobenzene	103	75 - 125
Dibromofluoromethane	112	75 - 125
Toluene-d8	110	75 - 125

Analyzed by: TAF
Reviewed by MTU

Method: GC-MS - Gas Chromatography/Mass Spectrometry (GC/MS)
Prep Method: EPA 5030B - Purge-and-Trap for Aqueous Samples

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	03/24/2005	WMS2050324

Surrogate	Surrogate Recovery	Control Limits (%)
-Bromofluorobenzene	99.0	75 - 125
Dibromofluoromethane	99.0	75 - 125
Toluene-d8	95.7	75 - 125

Analyzed by: Tfulton
Reviewed by: MTU

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

QC Batch ID: WMS2050324 Validated by: MTU - 03/28/05

QC Batch ID Analysis Date: 3/24/2005

Method Blank **Method: EPA 8260B**

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0 50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethanol	ND	1	100	µg/L
Ethanol	ND	1	100	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	105	75 - 125
Dibromofluoromethane	108	75 - 125
Toluene-d8	110	75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Laboratory Control Spike / Duplicate Results

Liquid

Reviewed by. MTU - 03/28/05

QC BatchID: WMS2050324

Analysis Date: 3/24/2005

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

LCS

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.2	20	20	**101**			80 - 120
Benzene	<0.2	20	20	**98.2**			80 - 120
Chlorobenzene	<0.2	20	20	**98.4**			80 - 120
Methyl-t-butyl Ether	<0.3	20	19	**96.8**			80 - 120
Toluene	<0.2	20	20	**102**			80 - 120
Trichloroethene	<0.2	20	20	**100**			80 - 120

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**104**	75 - 125
Dibromofluoromethane	**106**	75 - 125
Toluene-d8	**109**	75 - 125

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

LCSD

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.2	20	21	**104**	**3.1**	25.0	80 - 120
Benzene	<0.2	20	20	**101**	**2.8**	25.0	80 - 120
Chlorobenzene	<0.2	20	20	**102**	**3.2**	25.0	80 - 120
Methyl-t-butyl Ether	<0.3	20	22	**108**	**11**	25.0	80 - 120
Toluene	<0.2	20	21	**105**	**3.1**	25.0	80 - 120
Trichloroethene	<0.2	20	21	**103**	**3.2**	25.0	80 - 120

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**106**	75 - 125
Dibromofluoromethane	**108**	75 - 125
Toluene-d8	**108**	75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Matrix Spike / Duplicate Results
Liquid

QC Batch ID: WMS2050324 Reviewed by: MTU - 03/28/05

QC Batch ID Analysis Date: 3/24/2005

Method EPA 8260B Conc. Units: µg/L

MS

SampleNumber: 42929-010 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.1	3/24/2005	100			65 - 135
Methyl-t-butyl Ether	ND	20	21.6	3/24/2005	108			65 - 135
Toluene	ND	20	20.8	3/24/2005	104			65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	104	75 - 125
Dibromofluoromethane	110	75 - 125
Toluene-d8	108	75 - 125

MSD

SampleNumber: 42929-010 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.5	3/24/2005	103	2.0	25	65 - 135
Methyl-t-butyl Ether	ND	20	20.7	3/24/2005	103	4.1	25	65 - 135
Toluene	ND	20	21.4	3/24/2005	107	2.8	25	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	103	75 - 125
Dibromofluoromethane	108	75 - 125
Toluene-d8	108	75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Method Blank
Liquid

QC Batch ID: WMS2050325

Validated by: MTU - 03/29/05

QC Batch ID Analysis Date: 3/25/2005

Method Blank **Method: EPA 8260B**

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethanol	ND	1	100	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5 0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	112	75 - 125
Dibromofluoromethane	103	75 - 125
Toluene-d8	108	75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Laboratory Control Spike / Duplicate Results

Liquid

Reviewed by: MTU - 03/29/05

QC BatchID: WMS2050325

Analysis Date: 3/25/2005

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

LCS

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.2	20	21	106			80 - 120
Benzene	<0.2	20	21	103			80 - 120
Chlorobenzene	<0.2	20	20	100			80 - 120
Methyl-t-butyl Ether	<0.3	20	21	105			80 - 120
Toluene	<0.2	20	21	105			80 - 120
Trichloroethene	<0.2	20	21	105			80 - 120

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	106	75 - 125
Dibromofluoromethane	111	75 - 125
Toluene-d8	108	75 - 125

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

LCSD

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.2	20	20	98.9	7.0	25.0	80 - 120
Benzene	<0.2	20	20	98.9	4.4	25.0	80 - 120
Chlorobenzene	<0.2	20	19	96.1	4.0	25.0	80 - 120
Methyl-t-butyl Ether	<0.3	20	21	105	0.58	25.0	80 - 120
Toluene	<0.2	20	20	100	4.5	25.0	80 - 120
Trichloroethene	<0.2	20	20	100	4.9	25.0	80 - 120

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	106	75 - 125
Dibromofluoromethane	109	75 - 125
Toluene-d8	108	75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Matrix Spike / Duplicate Results
Liquid

QC Batch ID: WMS2050325

Reviewed by: MTU - 03/29/05

QC Batch ID Analysis Date: 3/25/2005

Method EPA 8260B

Conc. Units: µg/L

MS

SampleNumber: 42895-002 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.7	3/25/2005	103			65 - 135
Methyl-t-butyl Ether	ND	20	20.7	3/25/2005	103			65 - 135
Toluene	ND	20	21.2	3/25/2005	106			65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	105	75 - 125
Dibromofluoromethane	106	75 - 125
Toluene-d8	108	75 - 125

MSD

SampleNumber: 42895-002 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.7	3/25/2005	104	0.2	25	65 - 135
Methyl-t-butyl Ether	ND	20	20.5	3/25/2005	102	1.0	25	65 - 135
Toluene	ND	20	21 4	3/25/2005	107	0.9	25	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	106	75 - 125
Dibromofluoromethane	103	75 - 125
Toluene-d8	108	75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Method Blank
Liquid

QC Batch ID: WFE050325

Validated by: DQUEJA - 03/30/05

QC Batch ID Analysis Date: 3/25/2005

Method Blank **Method: SM 3500 - Fe**

Parameter	Result	DF	PQLR	Units
Iron, Ferrous	ND	1	0.10	mg/L

Quality Control - Laboratory Control Spike / Duplicate Results
Liquid

Reviewed by: DQUEJA - 03/30/05

QC BatchID: WFE050325

Analysis Date: 3/25/2005

Method: SM 3500 - Fe **Conc. Units:** mg/L

LCS

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
Iron, Ferrous	<0.1	0.40	0.39	97.9			75 - 125

Method: SM 3500 - Fe **Conc. Units:** mg/L

LCSD

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
Iron, Ferrous	<0.1	0.40	0.42	106	8.1		75 - 125

Quality Control - Matrix Spike / Duplicate Results
Liquid

QC Batch ID: WFE050325

Reviewed by: DQUEJA - 03/30/05

QC Batch ID Analysis Date: 3/25/2005

Method SM 3500 - Fe **Conc. Units: mg/L**

MS

SampleNumber: 42929-006 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Iron, Ferrous	ND	0.50	0.581	3/25/2005	116			75 - 125

MSD

SampleNumber: 42929-006 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Iron, Ferrous	ND	0.50	0.568	3/25/2005	114	2.2		75 - 125

Entech Analytical Labs, Inc.

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

Quality Control - Method Blank
Liquid

QC Batch ID: WIC050323

Validated by: LGLANTZ - 03/30/05

QC Batch ID Analysis Date: 3/23/2005

Method Blank **Method: EPA 300.0**

Parameter	Result	DF	PQLR	Units
Nitrate as N	ND	1	0.20	mg/L
Sulfate	ND	1	0.50	mg/L

Quality Control - Laboratory Control Spike / Duplicate Results
Liquid

Reviewed by: DQUEJA - 03/30/05

QC BatchID: WIC050323

Analysis Date: 3/23/2005

Method: EPA 300.0 **Conc. Units:** mg/L

LCS

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
Nitrate as N	<0.01	2.3	2.4	106			75 - 125
Sulfate	<0.1	15	16	107			75 - 125

Method: EPA 300.0 **Conc. Units:** mg/L

LCSD

Parameter	Blank (MDL)	Spike Amt	SpikeResult	% Recovery	RPD	RPD Limits	Recovery Limits
Nitrate as N	<0.01	2.3	2.4	108	1.2	25.0	75 - 125
Sulfate	<0.1	15	16	109	2.5	25 0	75 - 125

Quality Control - Matrix Spike / Duplicate Results
Liquid

QC Batch ID: WIC050323

Reviewed by: DQUEJA - 03/30/05

QC Batch ID Analysis Date: 3/23/2005

Method EPA 300.0 **Conc. Units:** mg/L

MS

SampleNumber: 42929-008 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Nitrate as N	0.154	4 0	3.75	3/23/2005	89.9			75 - 125
Sulfate	1.80	20	22.5	3/23/2005	104			75 - 125

MSD

SampleNumber: 42929-008 Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Nitrate as N	0.154	4 0	3.86	3/23/2005	92.6	2.9	25	75 - 125
Sulfate	1.80	20	23.0	3/23/2005	106	2.4	25	75 - 125

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: ☒ YES ☐ NO

LABORATORY: Entech Analytical

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

GLOBAL I.D.: T0600100475

Sampler: Jered Chaney

Date: 3/23/05

Field Point Name (Geo Tracker)	Sample Identification	Sample Depth	Date Sampled	Time Sampled	Matrix	SAMPLE CONTAINERS: 40 mL VOAs (preserved)	40 mL VOAs (unpreserved)	250 mL Poly Bottle	250 mL Amber	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	Bio-Parameters: Methane, Nitrate, Sulfate, & Dissolved Ferrous Iron
MW-3	MW-3	20.23'	3/23/05	1153	Aq	3	2	1	1			X	X	4.24.24-E01			X
MW-4	MW-4	21.52		0923		3						X	X			E02	
MW-5	MW-5	24.64'		1502		3	2	1	1			X	X			E03	X
MW-6	MW-6	21.25'		1329		3						X	X			E04	
MW-7	MW-7	21.91'		1130		3						X	X			E05	
MW-8	MW-8	21.91'		0851		3	2	1	1			X	X			E06	X
MW-9	MW-9	20.57'		1232		3	2	1	1			X	X			E07	X
MW-10	MW-10	19.44		1034		3	2	1	1			X	X			E08	X
MW-11	MW-11	20.16'		1105		3						X	X			E09	
MW-12	MW-12	21.89'		0818		3						X	X			E10	

RELEASED BY:	Date & Time	RECEIVED BY:	Date & Time	SAMPLE CONDITION: (circle 1)		
1.)	3/23/05 1641	Joseph Machado	3/23/05 1616	Ambient	(Refrigerated)	Frozen
2.)				Ambient	Refrigerated	Frozen
3.)				Ambient	Refrigerated	Frozen
4.)				Ambient	Refrigerated	Frozen
5.)				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.*

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

ADDITIONAL COMMENTS

- Please produce and email an EDF of these results to frances@weber-hayes.com
- Fuel Oxygenates should include MtBE, DIPE, TAME, ETBE, TBA & Ethanol.
- Lab to filter & acidify Dissolved Ferrous Iron sample (250 mL Amber)

Entech Analytical Labs, Inc.

CA ELAP # I-2346

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

Subcontract Chain of Custody

Subcontract Lab:	Entech Project Name:	Date Sent:	Due Date:	PO Number
Air Toxics LTD	42929	3/23/05	3/30/05	42929

Entech Sample Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time	Bottle Type	Preservative
42929-001	MW-3	Liquid	Methane - Air Toxics LTD	3/23/200	11:58		
42929-003	MW-5	Liquid	Methane - Air Toxics LTD	3/23/200	15:02		
42929-006	MW-8	Liquid	Methane - Air Toxics LTD	3/23/200	8.51		
42929-007	MW-9	Liquid	Methane - Air Toxics LTD	3/23/200	12.37		
42929-008	MW-10	Liquid	Metalune - Air Toxics LTD	3/23/200	10:37		

Relinquished By:	Received By:	Date:	Time.
Joseph Machado	California Overnight	03-23-05	1830
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time: