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Letter of Transmittal

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

from: Craig Drizin

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

date: January 9, 2001

Number of Copies	Date of Documents	Description
1	January 30, 2001	Groundwater Monitoring Report - Fourth Quarter 2000

c: Mr. Jerry Harbert
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Indian Wells, California 92210

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January 30, 2001
Project H9042.Q

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

Subject: **Groundwater Monitoring Report - Fourth Quarter 2000**
Harbert Transportation
19984 Meekland Avenue, Hayward, California

Dear Mr. Harbert:

This report describes groundwater monitoring activities conducted by Weber, Hayes and Associates at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California, during the fourth quarter 2000. This report has been prepared pursuant to a request from the Alameda County Health Care Services Agency/Environmental Health Services regarding a release of petroleum hydrocarbons from an underground storage tank at the site.

EXECUTIVE SUMMARY

The groundwater monitoring event for the fourth quarter 2000 took place on January 12, 2001. The previous groundwater monitoring event took place on September 27, 2000 (Weber, Hayes and Associates, November 9, 2000).

The calculated groundwater flow direction on January 12, 2001 was to the southeast, which appears to be consistent with historical data.

Groundwater analytical results from fourth quarter 2000 indicate that dissolved petroleum hydrocarbons (PHCs) are present at concentrations that exceed water quality goals in on-site monitoring wells downgradient of the removed underground storage tanks (USTs) at the site.

Neither MTBE nor any other fuel oxygenate were detected in the groundwater samples collected this quarter.

A review of historical data indicates a decrease of at least an order of magnitude in dissolved PHC concentrations at the site since September 1996.

We recommend:

- Continuing quarterly groundwater monitoring of dissolved PHC concentrations at the site.
- Collecting soil samples from the site to determine the extent of PHCs remaining in the unsaturated zone. We submitted a Work Plan for soil sampling dated September 7, 2000. The Work Plan was approved by Environmental Health in letters dated November 1, 2000 and December 4, 2000.

- Evaluating soil and groundwater sample analytical data to determine if active cleanup of PHCs in either soil or groundwater at the site is necessary. This should include developing site-specific cleanup goals for all of the PHCs detected in soil and groundwater at the site. Cleanup goals for some PHCs detected at the site have already been developed and approved by Environmental Health and the Regional Water Quality Control Board.

INTRODUCTION

This report documents quarterly monitoring of dissolved petroleum hydrocarbon (PHC) concentrations in groundwater, groundwater elevations and flow direction at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California (the site), during the fourth quarter 2000. This report has been prepared pursuant to a request from the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health, August 8, 2000) regarding a release of PHCs from underground storage tanks (USTs) at the site.

Groundwater monitoring activities conducted during this quarter included:

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

Site Description And Background

The site is located at the corner of Meekland Avenue and Blossom Way in Alameda County California, at an elevation of approximately 55 feet above sea level (Figure 1). The site is relatively flat and is currently vacant.

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

In August 1989, four underground storage tanks (USTs) were removed from the site and properly disposed of. Soil and groundwater investigations at the site, conducted by Applied Geosystems, CTTS, and AGI Technologies, indicated that PHCs were present in soil and groundwater at the site. A list of reports documenting the soil and groundwater investigations is included in the Reference section. Ten groundwater monitoring wells currently exist at the site (Figure 2). Groundwater samples were not collected from these wells between September 1996 and September 2000.

Documentation indicates that excavated soil from the UST removals was returned to the (plastic-lined) excavations (CTTS, November 1, 1992).

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

We prepared a Work Plan (Weber, Hayes and Associates, September 7, 2000) for soil sampling to assess the current extent of PHCs in unsaturated soil at the site. The Work Plan was approved by Environmental Health in letters dated November 1, 2000 and December 4, 2000.

SUMMARY OF QUARTERLY ACTIVITIES

The groundwater monitoring event for the fourth quarter 2000 took place on January 12, 2001. Field methods followed Weber, Hayes and Associates' standard field methodology for groundwater monitoring, which is described in Appendix A. Groundwater samples were collected from all monitoring wells at the site in accordance with directives from Environmental Health, and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method 8015M, and benzene, toluene, ethylbenzene, and xylenes (BTEX), and Methyl tert Butyl Ether (MTBE) by EPA Method 8020. Samples with elevated detection limits or detections of MTBE were analyzed by EPA Method 8260 to confirm the presence of MTBE and provide the proper detection limit. Field data forms are also presented in Appendix A.

Free Product

Free product was not observed in any of the monitoring wells at the site.

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. Calculated groundwater elevations from the gauging data collected on January 12, 2001 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 January 12, 2001 was to the southwest at 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 northwesterly to southwesterly direction. A table and figures summarizing previous depth to groundwater data is presented as Appendix B.

Groundwater Analytical Results

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

Summary of Groundwater Sample Analytical Results, January 12, 2001 (µg/L, ppb)

Well ID	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	310	2.4	2.2	4.4	10	ND
MW-4	ND	ND	ND	ND	ND	ND
MW-5	1,100	62	40	150	290	ND*
MW-6	2,300	16	3.5	290	83	ND*
MW-7	1,600	13	0.86	150	35	ND*
MW-8	ND	ND	ND	ND	ND	ND
MW-9	10,000	550	110	1,200	2,200	ND*
MW-10	530	3.7	1.9	2.1	4.5	ND
MW-11	ND	ND	2.1	ND	ND	ND
MW-12	ND	ND	1.1	ND	ND	ND
AL/MCL	1,000	1	150	700	1,750	5

* = Confirmed by GC/MS method 8260

The concentrations of TPH-g, benzene, ethylbenzene, and xylenes in well MW-9 exceed the respective groundwater quality goals/drinking water Action Levels (Als)/ Maximum Contaminant Levels (MCLs).

The concentrations of TPH-g and benzene in well MW-5, 6, and 7 exceed the groundwater quality goals/AL/MCLs.

The concentrations of benzene in well MW-3 and 10 slightly exceed the groundwater quality goal/MCL of 1 microgram per liter (µg/L).

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

Please see the Conclusions section for a discussion of the groundwater analytical results.

The current groundwater sample analytical results 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 1 ppb benzene in groundwater are shown on Figure 4.

The Certified Analytical Report for the groundwater samples is presented as Appendix C. All laboratory quality control and quality assurance data were within acceptable limits. A table and figures summarizing previous groundwater analytical results is presented as Appendix D.

Dissolved Oxygen Measurements

Dissolved oxygen field measurements were collected to monitor bioremediation of PHCs in groundwater. Measurements indicate lower levels of dissolved oxygen in PHC impacted wells compared to levels in non-impacted, upgradient wells. We believe this indicates that natural attenuation of PHCs via bioremediation is occurring in groundwater, with microbes using dissolved PHCs as a food source during aerobic respiration (see Bushek and O'Reilly, 1995, Table 1 and Figure 3).

SUMMARY

- Free product was not observed in any of the monitoring wells at the site.
- The groundwater flow direction on January 12, 2001 was to the southwest at a gradient of approximately 0.002 feet per foot. This direction is in general agreement with previous data collected by others at the site.
- **MTBE was not detected in any of the groundwater samples collected this quarter. MTBE results were confirmed by Gas Chromatography / Mass Spectrometry method 8260.**
- TPH-g, benzene, ethylbenzene, and xylenes were detected above their respective ALS/MCLs in on-site well MW-9, which is located downgradient of the removed USTs.
- TPH-g and benzene were detected above their respective ALs in on-site wells MW-5, 6, and 7.
- Benzene was detected at a concentration slightly above the MCL in wells MW-3 and 10.
- Measurements of dissolved oxygen indicated aerobic bioremediation is occurring in the PHC-impacted wells. We believe that this is a significant mechanism for the reduction of dissolved PHC concentrations at this site.

CONCLUSIONS AND RECOMMENDATIONS

Based on a review of the current and previous groundwater monitoring data, we conclude:

- **MTBE is not present in groundwater at the site.**
- A review and comparison of previous groundwater analytical data with the current data suggests there has been a reduction in PHC concentrations at the site of at least an order of magnitude since September 1996 (see Table 1, Figures 3 and 4, and Appendix D).
- PHCs are present in several on-site wells downgradient of the removed USTs at concentrations above groundwater quality goals.
- The highest concentrations of PHCs measured this quarter are in well MW-9, which is located downgradient of removed USTs. We note that concentrations of PHCs are higher in well MW-9 than in well MW-5 this quarter. This is in contrast to last quarter (see Table 2) and all previous analyses (see Appendix D). This data apparently indicates that PHCs are moving downgradient. We recommend that groundwater sample analytical results from future monitoring events be evaluated to determine if this is indeed the case.
- We believe that natural attenuation/bioremediation will continue to remove PHCs from groundwater at the site.

We recommend:

- Continuing quarterly groundwater monitoring of dissolved PHC concentrations at the site.
- Collecting soil samples from the site to determine the extent of PHCs remaining in the unsaturated zone. We submitted a Work Plan for soil sampling dated September 7, 2000. The Work Plan was approved by Environmental Health in letters dated November 1, 2000 and December 4, 2000.
- Evaluating soil and groundwater sample analytical data to determine if active cleanup of PHCs in either soil or groundwater at the site is necessary. This should include developing site-specific cleanup goals for the PHCs detected in soil and groundwater at the site. Cleanup goals for some PHCs detected at the site have already been developed and approved by Environmental Health and the Regional Water Quality Control Board.

SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER

The following activities are scheduled for the next quarter:

- Quarterly groundwater monitoring of all monitoring wells as directed by Environmental Health, including measuring the depth-to-groundwater, dissolved oxygen concentration, and physical parameters, and collecting samples from all wells and analyzing them for TPH-g, BTEX and MTBE by EPA Methods 8015M and 8020. All detections of MTBE will be confirmed by EPA Method 8260.

- Soil sampling in the unsaturated zone with analysis and reporting per our September 7, 2000 Work Plan, which was approved by Environmental Health in letters dated November 1, 2000 and December 4, 2000. The cost for this work was pre-approved by the Underground Storage Tank Cleanup Fund on December 27, 2000.

LIMITATIONS

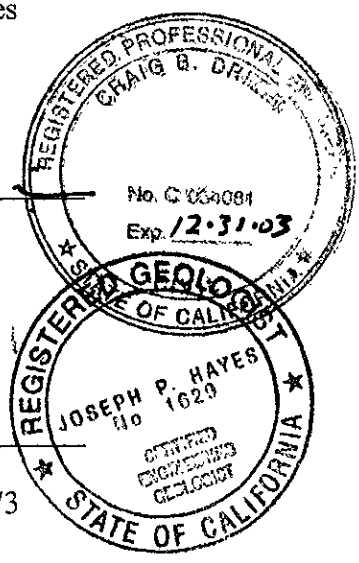
Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and proposals in this report are based on sampling and testing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



And:_____
Joseph Hayes
Certified Hydrogeologist #373

Attachments:

Table 1: Summary of Groundwater Elevation and PHC Analytical Results
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

Appendix A: Field Methodology for Groundwater Monitoring and Field Data Forms
Appendix B: Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc.
Appendix C: Certified Analytical Report - Groundwater Samples
Appendix D: Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.

c: Mr. Amir Gholami, Alameda County Environmental Health
Mr. Jeff Lawson
Ms. Laurie Berger
Mr. Gregg Petersen, Durham Transportation
Mr. Chuck Headlee, San Francisco Bay Regional Water Quality Control Board

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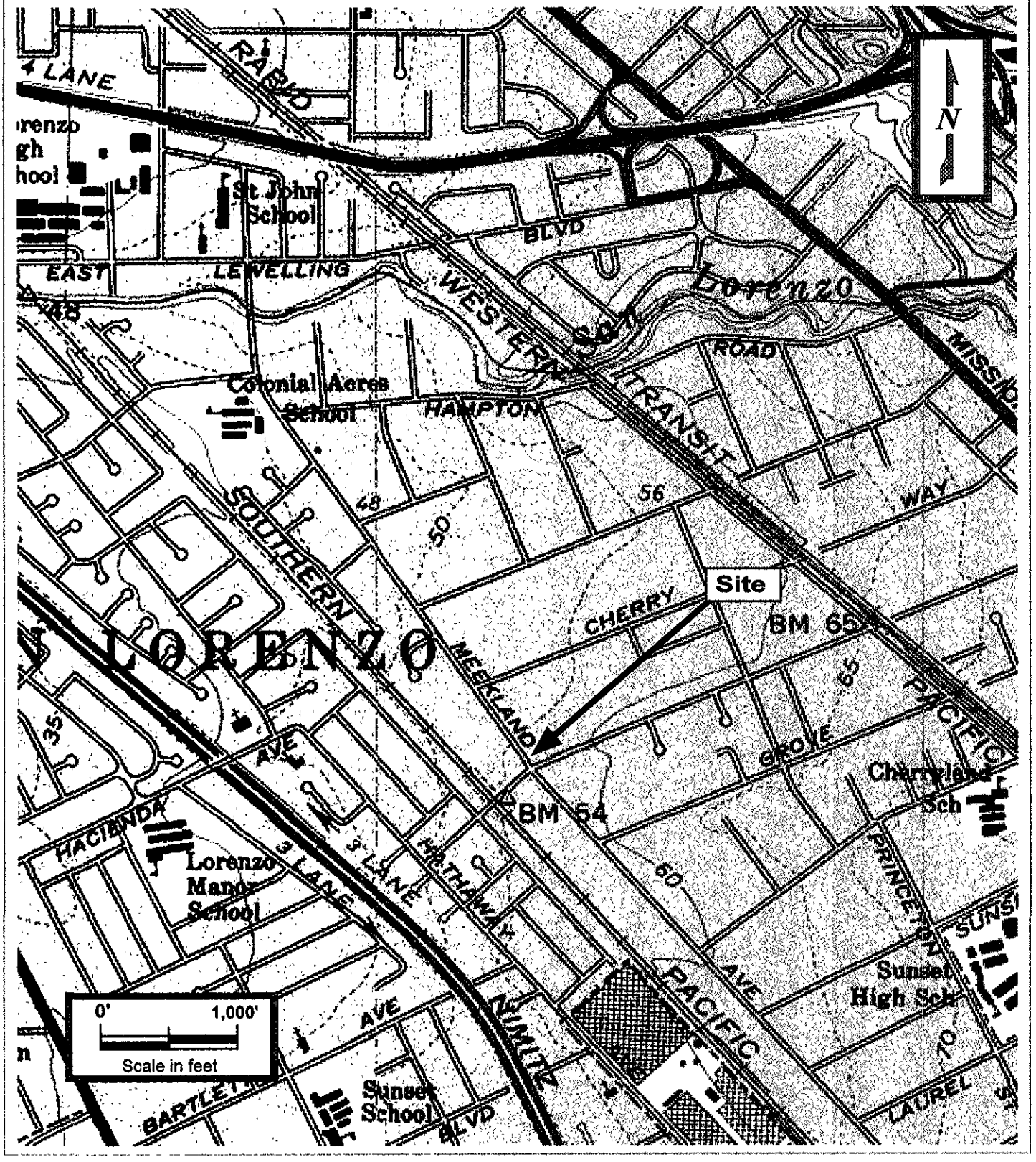
Table 1: Summary of Groundwater Elevation and PHC Analytical Data
Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca.
Weber, Hayes and Associates Project H9042

Well I.D.	Date	Screened Interval (feet below ground surface)	Surveyed T.O.C. Elevation (feet)	Depth to Groundwater (feet below ground surface)	Calculated Groundwater Elevation (feet)	Laboratory Analytical Results							
						TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	F.O.'s (ug/L)	D.O. (mg/L)
MW-3		20 - 40?	55 44										
	12-Jan-2001			23.41	32 03	310	2 4	2.2	4.4	10	ND	--	0.7
	27-Sep-2000			23.09	32.35	430	ND	ND	44	ND	ND	ND	1.0
MW-4		20 - 40?	55.71										
	12-Jan-2001			23.60	32.11	ND	ND	ND	ND	ND	ND	--	0.7
	27-Sep-2000			23.25	32.46	ND	ND	ND	ND	ND	ND	ND	2.5
MW-5		25 - 45	56.03										
	12-Jan-2001			23.97	32.06	1,100	62	40	150	290	ND*	--	0.3
	27-Sep-2000			23.69	32.34	18,000	840	2.9	1,200	3,500	<30	ND	0.4
MW-6		25 - 45	56.01										
	12-Jan-2001			23.97	32.04	2,300	16	3.5	290	83	ND*	--	0.5
	27-Sep-2000			23.56	32.45	1,300	ND	4.3	200	17	ND	ND	0.5
MW-7		25 - 45	56.66										
	12-Jan-2001			24.49	32.17	1,600	13	0.86	150	35	ND*	--	0.5
	27-Sep-2000			24.18	32.48	270	13	6 6	11	ND	ND	ND	0.5
MW-8		20 - 40	56.16										
	12-Jan-2001			23.93	32.23	ND	ND	ND	ND	ND	ND	--	2.1
	27-Sep-2000			23.59	32.57	ND	ND	ND	ND	ND	ND	ND	1.9
MW-9		20 - 40	55.21										
	12-Jan-2001			23.17	32.04	10,000	550	110.0	1,200	2,200	ND*	--	0.5
	27-Sep-2000			22.90	32.31	1,000	40	6.7	110	55	ND	ND	0 5
MW-10		25 - 40	54.74										
	12-Jan-2001			22 99	31 75	530	3.7	1.9	2.1	4.5	ND	--	0.6
	27-Sep-2000			22.72	32 02	880	ND	ND	ND	ND	ND	ND	0.4
MW-11		25 - 40	55.20										
	12-Jan-2001			23.21	31.53	ND	ND	2.1	ND	ND	ND	--	0.6
	27-Sep-2000			22.43	32.31	63	ND	ND	ND	ND	ND	ND	0.6
MW-12		25 - 40	56 49										
	12-Jan-2001			24.28	32.21	ND	ND	1.1	ND	ND	ND	--	1.0
	27-Sep-2000			23.98	32.51	ND	ND	ND	ND	ND	ND	ND	1.2
Laboratory's Practical Quantitation Limit (PQL):						**50**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**5**	Field
State Maximum Contaminant Level (MCL):						**1,000****	**1**	**150**	**700**	**1,750**	**5*****	**0.5**	Instrument

Notes:
T O C = Top of Casing Elevation Calculated groundwater elevation = TOC - Depth to Groundwater. Referenced to NGVD
TPH-g = Total Petroleum Hydrocarbons as gasoline. MTBE = Methy - tert - Butyl Ether
F O.'s = Fuel Oxygenates = Di-isopropyl ether (DIPE), tertiary Butyl Alcohol (TBA), Ethyl tertiary Butyl Ether (ETBE), tertiary amyl Methyl Ether (TAME)
VOC's = Volatile Organic Compounds D.O. = Dissolved Oxygen
ug/L = micrograms per liter, parts per billion, mg/L = milligrams per liter, parts per million
ND = Not Detected at the Practical Quantitation Limit (PQL), <X = Not Detected at the elevated PQL, X PQL elevated because of sample dilution.
-- = Data not collected or measured, or analysis not conducted
MCL = Maximum Contaminant Level for drinking water in California (Department of Health Services)
* Confirmed by GC/MS method 8260
** = Action Level *** = RWQCB water quality goal



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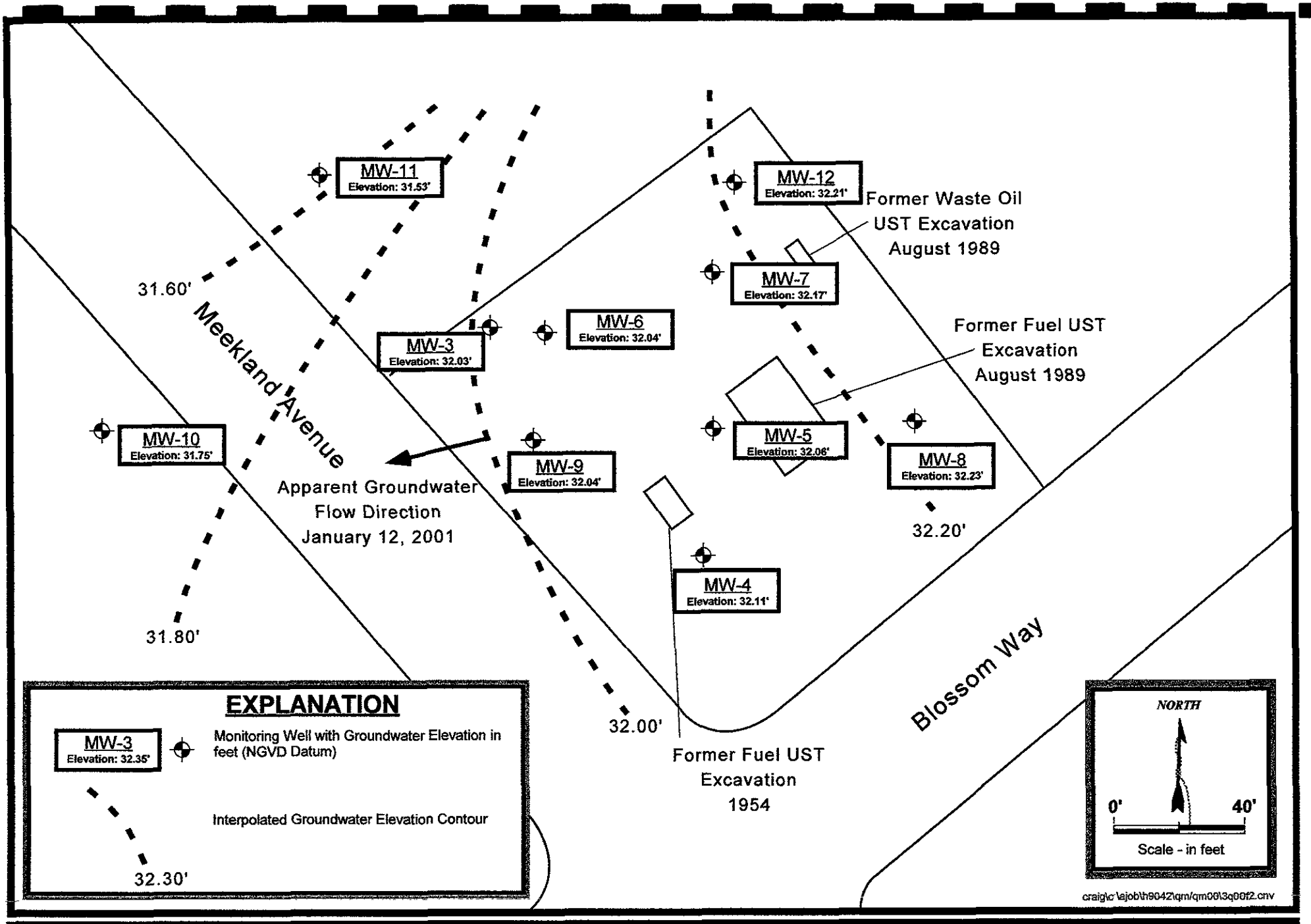
LOCATION MAP
Former Harbert Transportation Facility
19984 Meekland Avenue
Hayward, California

Figure 1
Project H9042.Q



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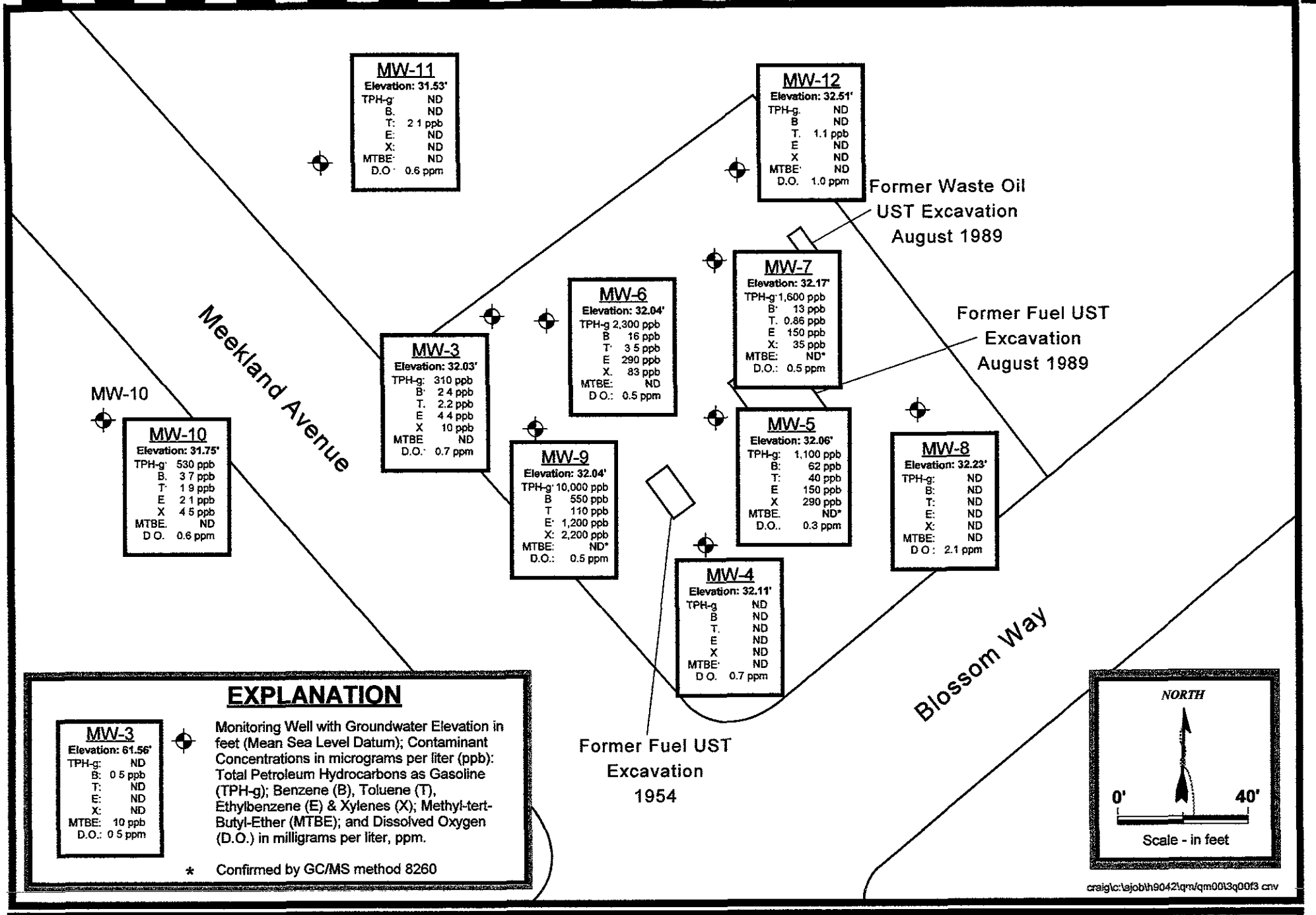
Site Plan with Groundwater Elevations

Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 2 Project H9042



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EXPLANATION

MW-3
Elevation: 61.56'
TPH-g: ND
B: 0.5 ppb
T: ND
E: ND
X: ND
MTBE: 10 ppb
D.O.: 0.5 ppm

Monitoring Well with Groundwater Elevation in feet (Mean Sea Level Datum); Contaminant Concentrations in micrograms per liter (ppb): Total Petroleum Hydrocarbons as Gasoline (TPH-g); Benzene (B), Toluene (T), Ethylbenzene (E) & Xylenes (X); Methyl-tert-Butyl-Ether (MTBE); and Dissolved Oxygen (D.O.) in milligrams per liter, ppm.

* Confirmed by GC/MS method 8260

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
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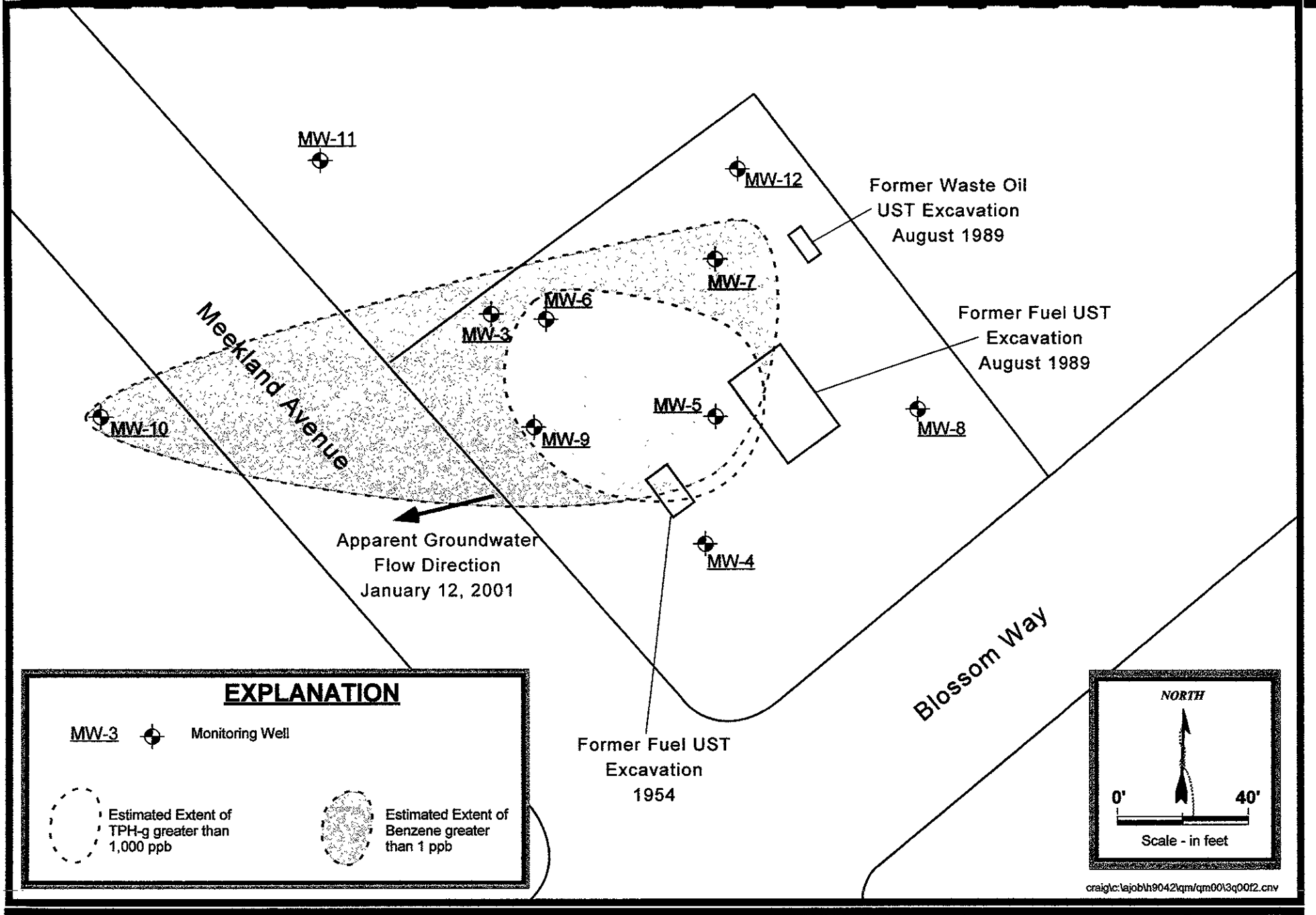
Site Plan with PHC Concentrations in Groundwater

Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 3
Project H9042



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Hydrogeology and Environmental Engineering
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Site Plan with Extent of TPH-g and Benzene in Groundwater

Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 4 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 of approximately three to five well volumes of water. Purging is accomplished either by hand bailing or with a low flow submersible electric pump. During purging the physical parameters of temperature, conductivity, pH, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with field instruments to insure that these parameters have stabilized (are within 15 percent of the previous measurement). The dissolved oxygen content of the groundwater from each well is measured with a YSI Model 57 field meter (equipped with a membrane covered Clark-type polarographic sensor probe, with built-in thermistors for temperature compensation). 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

INDICATE ATTACHMENTS THAT APPLY

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

Job Name: **Harbert Transportation**	*Date:* ~~1/10/01~~ CE 1/12/01 1/12/01
Field Location: **19984 Meekland Avenue, Hayward**	*Study #:* **H9042.Q**
Field Tasks: ☐ *Drilling* ☑ *Sampling* ☑ *Other* ***4th Quarter 2000 Well Sampling***	*Weather Conditions:* Clear + Cold
Personnel/Company onsite: (Weber, Hayes and Associates) **Chad Taylor**	

FIELD WORK PLANNING: Performed on: **1/9/01**

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

Number of wells to be sampled: **Ten Wells, with D.O in all wells**
Sample wells: **MW-3, 4, 5, 6, 7, 8, 9, 10, 11, 12 for TPH-g, BTEX, andMTBE.**

Proposed sampling date: ~~1/10/01~~ CE 1/12/01 1/12/01

TIME: 0640

CE Arrive onsite to perform 4th Quarter Monitoring Well Sampling.

COMMENTS:
Send all analytical to Entech Analytical Laboratory.

INITIALS:

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

BEGIN CALIBRATION:

CE pH, EC, Temp Meter # 2 : Temp = 51.4°F, pH = 7.00 & 10.00, EC = 1415 µm

Dissolved Oxygen Meter: Red-line ✓, Zero ✓, Temp= 9°C
Therefore, 11.56 mg/L = Solubility of Oxygen in fresh water.

BEGIN SAMPLING ALL WELLS:

CE MW8 MW4 MW12 MW11 MW10 MW3 MW7 MW6 MW9 MW5 ____ ____
-See information below for general monitoring well information this sampling round.

COMMENTS:
All well will be purged of four casing volumes in the column requiring sampling (see Water Quality Sampling Field Forms for details). Wells will be purged from bottom-up and will follow standard operating procedures by WHA. Wells will be sampled using a bladder pump, or disposable bailer.

P:\AJOB\H9042.hbt\QM\QM00\4QFL.wpd

1/12/01
Signature of Field Personnel & 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	GW Depth (TOC)	Total Depth of Well	D.O. (mg/L)	Floating Product (comments).
MW-3	23.41'	40'	0.7	No FP, Slight Odor
MW-4	23.60'	40	0.7	No FP, No Odor
MW-5	23.97'	45'	0.3	No FP, Strong Odor
MW-6	23.97'	45'	0.5	No FP, Moderate Odor
MW-7	24.49'	40'	0.5	No FP, No Odor
MW-8	23.93'	40'	2.1	No FP, No Odor
MW-9	23.17'	40'	0.5	No FP, Moderate Odor
MW-10	22.91'	40'	0.6	No FP, Very Slight Odor
MW-11	23.21	40'	0.6	No FP, No Odor
MW-12	24.28'	40	1.0	No FP, No Odor

HOW MANY PURGE DRUMS WERE LEFT ONSITE 8. APPROXIMATE GAL. 360.
CALL ~~BAYSIDE~~ Albany OIL ON _____ TO HAVE DRUMS PURGED.
DRUMS WILL BE PURGED ON _____.

COMMENTS:

P:\AJOB\H9042.hbt\QM\QM00\4QFL.wpd

1/12/01
Signature of Field Personnel & Date

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Hubert Transportation 119042.Q **Date:** 1/12/01

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

Samplers Name: Chad T. **Recorded by:** CT

Purge Equipment:

_____ Bailer: Disposable or Acrylic
X Whaler # 1
_____ Bladder Pump
_____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

~~TPH-gas~~, ~~BTEX~~, ~~MTBE~~, ~~1, 2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH-diesel, Stoddard Solvent~~
~~Intrinsic Bio Parameters~~

Number and Types of Bottle Used:

5 x 40 mL VOA's

Well Number: MW-3
Depth to Water: 23.41' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 16.59' feet (well depth - depth to water)
Volume in Well: 2.6544 gallons (casing volume X height)
Gallons to purge: 10.62 gallons (volume X 4)

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

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O (ppm)
1158	0	679	59.7	6.99	Moderate Gry-Brwn, Mod Fines	1.9
1200	2	696	61.9	7.08	↓ ↓ ↓	1.0
1201	4	728	63.2	7.05	Low: Clear-Brwn, Minor Fines	0.8
1203	6	744	63.6	7.04	Low. Clear, Trace Fines	0.7
1205	8	750	63.5	7.02	↓ ↓ ↓	0.7
1206	10	744	63.4	7.02		0.7
1208	12	746	63.4	6.99	↓ ↓ ↓	0.7
STOP - Purge Complete. Wait for 80% Well Recovery.						
CT	1/12/01					

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 well volume = 2.6544 x 0.8 = 2.12352

80% of original well volume 2.12352 / (Casing Volume) 0.16 = (Height of water column) 13.27' (Well Depth) 40' = Depth to water 26.73'

Time: 1210 1st measured depth to water, 23.44' 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 orginal 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 ____

Sample Well

Time: 1210 Sample ID: MW-3 Depth: 23.44' feet below TOC

Comments: No Floating Product. ~~No Odor~~ RA 01/12/01 Slight Od.

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation **Date:** 1/12/01

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

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

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- X Whaler # 1
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

~~TPH-gas~~ ~~BTEX~~ ~~MTBE~~ ~~1, 2-DCA, EDB, 8260 Fuel Oxygenates~~ ~~TPH-diesel, Stoddard Solvent~~ ~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used:

5 x 40mL VOA's

Well Number: MW-4

Depth to Water: 23.60' TOC

Well Depth: 40' BGS or TOC

Height W-Column: 16.40' feet (well depth - depth to water)

Volume in Well: 2.624 gallons (casing volume X height)

Gallons to purge: 10.50 gallons (volume X 4)

Well Diameter: 2" with Casing Volume of:

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

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0827	0	481	52.2	6.97	High: Light Brown, Many Fines	4.4
0828	2	713	57.3	6.87	High: Light Brown, Moderate Fines	1.4
0830	4	799	60.1	6.81	Moderate: Light Brown, Minor Fines	1.0
0832	6	797	61.2	6.80	Low: Clear-Brown, Trace Fines	0.7
0834	8	787	61.8	6.81	Low: Clear, Trace Fines	0.9
0835	10	804	62.0	6.78	↓ ↓ ↓	0.7
0837	12	809	61.9	6.77	↓ ↓ ↓	0.7
STOP - Purge Details		Complete.	Wait For	80% Well	Recovery. See Below for Well Recovery	

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: Orginal well volume = 2.624 x 0.8 = 2.0992

80% of original well volume 2.0992 (Casing Volume) 0.16 = (Height of water column) 13.12' - (Well Depth) 40' = Depth to water 26.88'

Time: 0839 1st measured depth to water, 23.72' 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: 0839 Sample ID: MW4 Depth: 23.72' feet below TOC

Comments: Well Tag open (unsealed) upon Arrival, Vault lid was in place. No Floating Product, No Odor

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbert Transportation/H9042.Q **Date:** 1/12/01

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

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

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- x Whaler #2+3
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

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

~~TPH-diesel, Stoddard Solvent~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5x40mL VOA's

Well Number: MW-5
Depth to Water: 23.97' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 16.03' feet (well depth - depth to water)
Volume in Well: 10.4195 gallons (casing volume X height)
Gallons to purge: 41.68 gallons (volume X 4)

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

Lab: Entech **Transportation:** Courier

Time (24 hr)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
1550 / 1553	0 / 5	693 / 727	57.7 / 61.2	6.96 / 7.10	Very High: Gray, Very Many / High: Gray, Many Fines	0.1 / 0.2
1556	10	757	61.8	6.99	Moderate: Gray, Moderate Fines	0.5
1600	15	754	62.4	7.04	↓	0.6
1603	20	741	62.1	7.02	Low: Clear-Gray, Minor Fines	0.6
1606	25	754	62.1	6.97	↓	0.5
1609	30	739	62.5	7.00	↓	0.4
1612	35	737	61.9	7.00	↓	0.5
1617	40	715	60.5	7.03	↓	0.4
1621	45	725	61.7	7.05	↓	0.3

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 well volume = 10.4195 x 0.8 = 8.3356

80% of original well volume 8.3356/ (Casing Volume) 0.65 = (Height of water column) 12.824 - (Well Depth) 40 = Depth to water 27.18'

Time: ____ 1st measured depth to water, 24.01' 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: ~~____~~ CT 1st measured depth to water, ~~____~~ CT feet below TOC. Is well within 80% of original well casing volume: Yes ____ ~~No ____~~ CT

Sample Well

Time: 1624 Sample ID: MW-5 Depth: 24.01' feet below TOC

Comments: No Floating Product. ~~S~~ Strong Odor.

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / H4042.Q **Date:** 1/12/01

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

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

Purge Equipment:
- ____ Bailer: Disposable or Acrylic
- X Whaler # 2+3
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:
- X Disposable Bailer
- ____ Whaler # ____
- ____ Bladder Pump
- ____ Submersible Pump

Analyses Requested (cricle all that apply):
(TPH-gas) (BTEX), (MTBE) ~~, 1, 2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH-diesel, Stoddard Solvent~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5x40mL VOAs

Well Number: MW-6
Depth to Water: 23.97' TOC
Well Depth: 45' BGS or TOC
Height W-Column: 21.03' feet (well depth - depth to water)
Volume in Well: 13.6695 gallons (casing volume X height)
Gallons to purge: 54.68 gallons (volume X 4)

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

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
1348 / 1350	[illegible] / 5	687 / 787	56.2 / 59.9	7.04 / 7.04	Very High: Gray, Very Many / Moderate: Gray, Mod.	0.1 / 0.3
1353 / 1355	10 / 15	725 / 723	62.0 / 62.5	7.16 / 7.24	Low: Clear - Gray, Minor / Low: Clear, Trace	0.7 / 1.0
1358 / 1400	20 / 25	752 / 746	62.7 / 62.5	7.17 / 7.08	Low: Clear, Trace / Low: Clear, Trace	0.9 / 0.6
1403	30	737	62.4	7.06	Low: Clear, Trace Fines	0.6
1405	35	753	62.0	7.07	↓	0.5
1408	40	750	62.1	7.07	↓	0.5
1410	45	754	62.1	7.03	↓	0.5
1413	50	757	62.2	7.05	↓	0.5
1415	55	770	62.0	7.05	↓	0.5

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 well volume = 13.6695 x 0.8 = 10.9356

80% of original well volume 10.9356 / (Casing Volume) 0.65 = (Height of water column) 16.824 (Well Depth) 45' = Depth to water 28.18'

Time: 1420 1st measured depth to water, 24.68' 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: ____ CT 1st measured depth to water, ____ CT feet below TOC. Is well within 80% of original well casing volume: Yes ____ No____ CT

Sample Well

Time: 1420 Sample ID: MW-6 Depth: 24.68' feet below TOC

Comments: No Floating Product. Moderate Odor.

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Hubert Transportation / H9042.9 **Date:** 1/22/01

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

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

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- X Whaler # 2+3
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

~~TPH-gas~~, BTEX, ~~MTBE~~, ~~1,2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH diesel, Stoddard Solvent~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5 x 40mL VOA's

Well Number: MW-7
Depth to Water: 24.49' TOC
Well Depth: 45' BGS or TOC
Height W-Column: 20.51' feet (well depth - depth to water)
Volume in Well: 13.3315 gallons (casing volume X height)
Gallons to purge: 53.34 gallons (volume X 4)

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

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
1255 / 1257	0 / 5	680 / 701	60.4 / 62.8	6.93 / 7.03	High: Light Brown, Many / Moderate: Light Brown, Minor	0.7 / 1.0
1259 / 1301	10 / 15	715 / 687	63.4 / 63.5	7.04 / 7.03	Moderate: Light Brown, Minor / Moderate: Light Brown, Minor	0.8 / 0.7
1304 / 1306	20 / 25	687 / 690	63.2 / 63.0	7.03 / 6.97	Low: Clear-Brown, Minor / Low: Clear-Brown, Minor Fines	0.7 / 0.7
1309	30	684	63.0	6.96	Low: Clear-Brown, Minor Fines	0.6
1311	35	695	62.8	6.95	↓ ↓ ↓	0.5
1314	40	700	62.7	6.95	Low: Clear, Trace Fines	0.5
1316	45	685	62.5	6.97	↓ ↓ ↓	0.5
1319	50	688	62.5	6.94	↓ ↓ ↓	0.5
1321	55	685	62.3	6.94	↓ ↓ ↓	0.5

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 well volume = 13.3315 x 0.8 = 10.6652

80% of original well volume 10.6652 (Casing Volume) 0.65 = (Height of water column) 16.408' (Well Depth) 45' = Depth to water 28.59'

Time: 1324 1st measured depth to water, 25.49' 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: ____ CT 1st measured depth to water, ____ feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____ CT

Sample Well

Time: 1324 Sample ID: MW-7 Depth: 25.49 feet below TOC

Comments: No Floating Product. No Odor

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Hubert Transportation / H9042.Q **Date:** 1/12/01

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

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

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- X Whaler # 1
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

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

~~TPH diesel, Stoddard Solvent~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5x40-mL VOA's

Well Number: MW-8

Depth to Water: 23.93' TOC

Well Depth: 40' BGS or TOC

Height W-Column: 16.07' feet (well depth - depth to water)

Volume in Well: 10.4455 gallons (casing volume X height)

Gallons to purge: 41.78 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: Estrella **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0732 / 0735	0 / 5	556 / 630	52.9 / 58.1	7.20 / 6.99	H.y.L: Brown, Many Fines / Moderate: Brown, Med Fines	1.4 / 1.2
0739	10	643	59.3	6.94	Low: Clear, Trace Fines	1.5
0742	15	643	58.9	6.95		1.8
0745	20	632	59.2	6.96		1.9
0749	25	641	58.8	6.93		2.0
0752	30	640	59.6	6.95		2.0
0755	35	642	60.0	6.94		2.1
0759	40	640	59.7	6.96		2.1
0802	45	632	57.4	6.96		2.1

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 well volume = 10.4455 x 0.8 = 8.3564

80% of original well volume 8.3564 (Casing Volume) 0.65 = (Height of water column) 12.856' (Well Depth) 40' = Depth to water 27.14'

Time: 0809 1st measured depth to water, 26.34' 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: 0814 Sample ID: MW-8 Depth: 26.34 feet below TOC

Comments: No Floating Product, No Odor

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H9192.Q **Date:** 1/12/01

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

Samplers Name: [illegible] **Recorded by:** CT

Purge Equipment:

____ Bailer: Disposable or Acrylic
x Whaler # ____
____ Bladder Pump
____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

TPH-gas, BTEX, MTBE, ~~1, 2-DCA, EDB, 8260 Fuel Oxygen~~ates
~~TPH-diesel, Stoddard Solvent~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5 x 40mL VOA's

Well Number: MW-9
Depth to Water: 23.17' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 16.83' feet (well depth - depth to water)
Volume in Well: 10.9395 gallons (casing volume X height)
Gallons to purge: 43.76 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: ~~Cour~~ (BEC 1/12/01) Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (μs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
1448 / 1451	0 / 5	720 / 732	58.5 / 61.8	6.94 / 7.03	High: Gray, Many Fines / High: Gray, Many Fines	6.1 / 0.4
1454	10	729	63.2	7.08	Moderate: Gray, Moderate Fines	0.9
1456	15	755	63.0	7.06	Low: Clear-Gray, Minor Fines	0.7
1459	20	728	62.9	7.01	↓ ↓ ↓	0.6
1501	25	731	63.0	7.00	Low: Clear, Trace Fines	0.5
1505	30	726	62.8	7.02	↓ ↓ ↓	0.5
1508	35	721	62.8	6.98	↓ ↓ ↓	0.5
1510	40	728	62.9	7.00	↓ ↓ ↓	0.5
1513	45	730	62.9	6.98	↓ ↓ ↓	0.5

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 well volume = 10.9395 x 0.8 = 8.7516

80% of original well volume 8.7516 / (Casing Volume) 0.65 = (Height of water column) 13.464 (Well Depth) 40' = Depth to water 26.536

Time: 1516 1st measured depth to water, 23.33' 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: ____ CT 1st measured depth to water, ____ CT feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____ CT

Sample Well

Time: 1516 Sample ID: MW-9 Depth: 23.33' feet below TOC

Comments: No Floating Product. Sl (RE 9 1/12/01) Moderate Odor

P:\CT\1-CT\FEILDLOG\H2O-QSI.WB2 WHA 6-3-99

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Hanbert Transportation / H9042.0 **Date:** 1/12/01

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

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

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- X Whaler # 1
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

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

Number and Types of Bottle Used: 5x40mL VOA's

Well Number: MW-10
Depth to Water: 22.99' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 17.01' feet (well depth - depth to water)
Volume in Well: 11.0565 gallons (casing volume X height)
Gallons to purge: 44.226 gallons (volume X 4)

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

Lab: Entech **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
1051 / 1055	0 / 5	992 / 1055	61.3 / 66.1	6.97 / 6.92	Very Hgh: Brown, Very Many / Moderate: Brown, Mod Fines	0.1 / 0.6
1058	10	1022	67.2	6.92	Low: Clear-Brown, Minor Fines	0.6
1102	15	1022	67.7	6.95	↓	0.6
1105	20	1007	67.1	6.96	↓	0.5
1109	25	997	67.2	6.94	↓	0.7
1112	30	1005	67.1	6.93	Low: Clear, Trace Fines	0.6
1116	35	1025	67.3	6.94	↓	0.6
1119	40	1018	67.2	6.84	↓	0.6
1123	45	1016	67.2	6.81	↓	0.6

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 well volume = 11.0565 x 0.8 = 8.8452

80% of original well volume 8.8452 / (Casing Volume) 0.65 = (Height of water column) 13.608' (Well Depth) 40' = Depth to water 26.31'

Time: 1125 1st measured depth to water, 23.07' 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: ____ CT 1st measured depth to water, ____ CT feet below TOC. Is well within 80% of original well casing volume: Yes ____ No ____ CT

Sample Well

Time: 1125 Sample ID: MW-10 Depth: 23.07' feet below TOC

Comments: No Floating Product. Very Slight Odor.

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Hubbard Transportation/#9042.9 **Date:** 1/12/11

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

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

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- X Whaler # 1
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

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

TPH-diesel, ~~Stoddard Solvent~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5 x 40ml VOA's

Well Number: MW-11
Depth to Water: 9.21 TOC
Well Depth: 40' BGS or TOC
Height W-Column: 16.79' feet (well depth - depth to water)
Volume in Well: 2.6864 gallons (casing volume X height)
Gallons to purge: 10.74 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: Eurofins **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0958	0	597	53.8	6.95	High: Light Brown, Many Fines	3.9
1000	2	916	57.3	6.85	↓ ↓ ↓	1.1
1002	4	1020	59.5	6.82	Moderate: Light Brown, Many Fines	0.8
1005	6	1046	60.3	6.82	Low: Clear-Brown, Trace Fines	0.5
1008	8	1027	60.6	6.82	Low: Clear, Trace Fines	0.5
1010	10	1030	60.9	6.84	↓ ↓ ↓	0.6
1012	12	1026	61.5	6.85	↓ ↓ ↓	0.6
STOP - Purge Complete. Wait for 80% Well Recovery. See below for Well Recovery Details.						

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 well volume = 2.6864 x 0.8 = 2.14912

80% of original well volume 2.14912 / (Casing Volume) 0.16 = (Height of water column) 13.432' (Well Depth) 40' = Depth to water 26.57'

Time: 1014 1st measured depth to water, 23.29' 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: 1014 Sample ID: MW11 Depth: 23.29' feet below TOC

Comments: No Floating Product. No Odor.

WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Hanbart Transportation / H9042.Q **Date:** 1/12/01

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

Samplers Name: Chad Tyl. **Recorded by:** CT

Purge Equipment:

- ____ Bailer: Disposable or Acrylic
- Y Whaler # 1
- ____ Bladder Pump
- ____ Submersible Pump

Sample Equipment:

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

Analyses Requested (cricle all that apply):

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

~~TPH-diesel, Stoddard Solvent~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 5 x 40mL VOA's

Well Number: MW-12

Depth to Water: 24.28' TOC

Well Depth: 40' BGS or TOC

Height W-Column: 15.72' feet (well depth - depth to water)

Volume in Well: 2.5152 gallons (casing volume X height)

Gallons to purge: 10.06 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: Entrix **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0914	0	599	53.9	6.71	Low: Clear-Brown, Minor Fines	1.3
0915	2	672	57.6	6.73	Low: Clear, Trace Fines	0.8
0917	4	687	54.3	6.73	↓	0.6
0919	6	672	59.7	6.73	↓	0.9
0921	8	686	60.2	6.73	↓	1.0
0923	10	676	60.2	6.76	↓	1.0
0926	12	667	60.3	6.74	↓	1.0
STOP - Purge Complete. Wait for 80% Well Recovery						
Initial						

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 well volume = 2.5152 x 0.8 = 2.0116

80% of original well volume 2.0116 / (Casing Volume) 0.16 = (Height of water column) 12.576' (Well Depth) 40' = Depth to water 27.42'

Time: 0928 1st measured depth to water, 24.32' 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: 0928 Sample ID: MW-12 Depth: 24.32' feet below TOC

Comments: No Floating Product. No Odor.

Appendix B

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

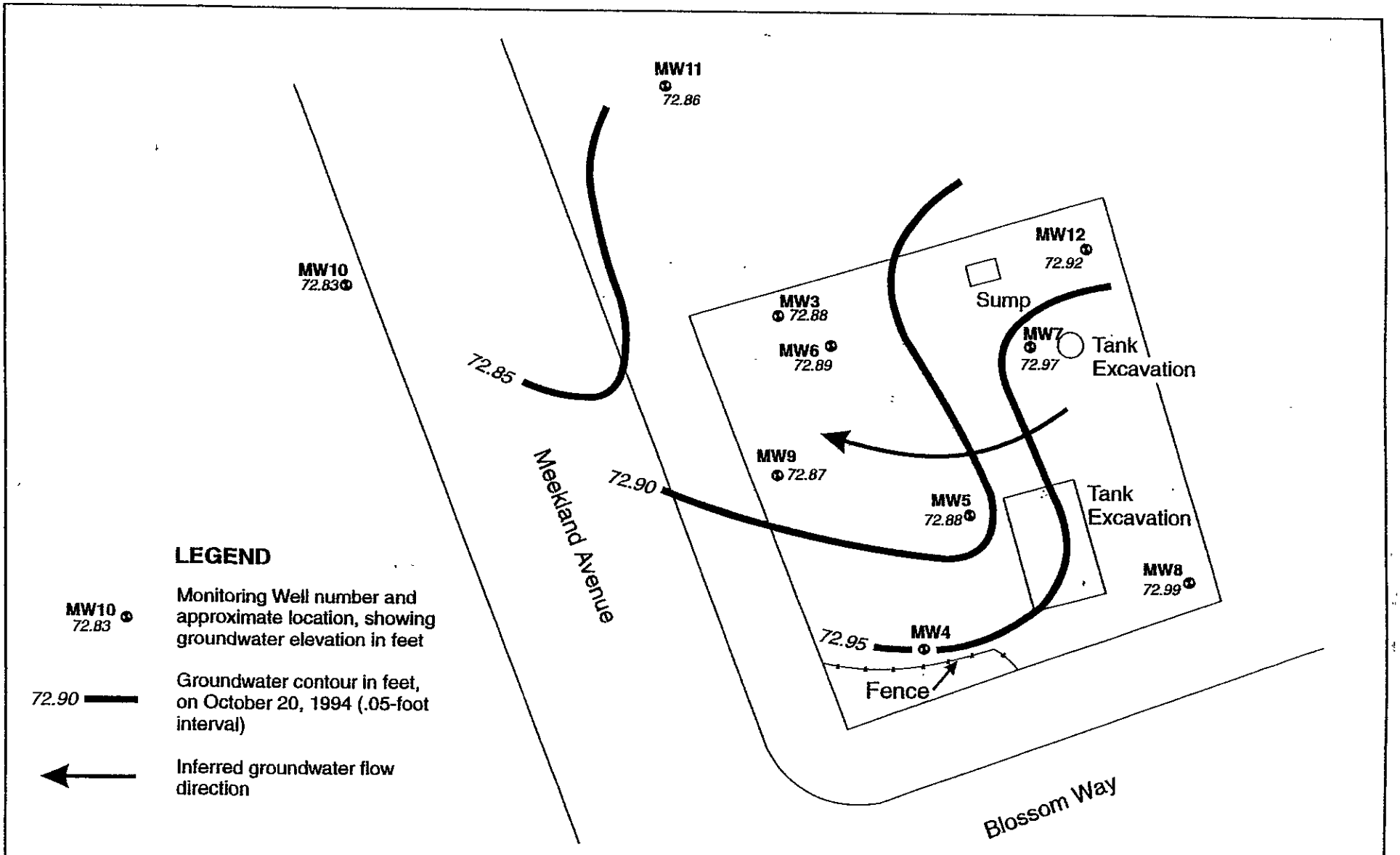
AGI TECHNOLOGIES

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

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

Note:

ft bgs - Feet below ground surface.



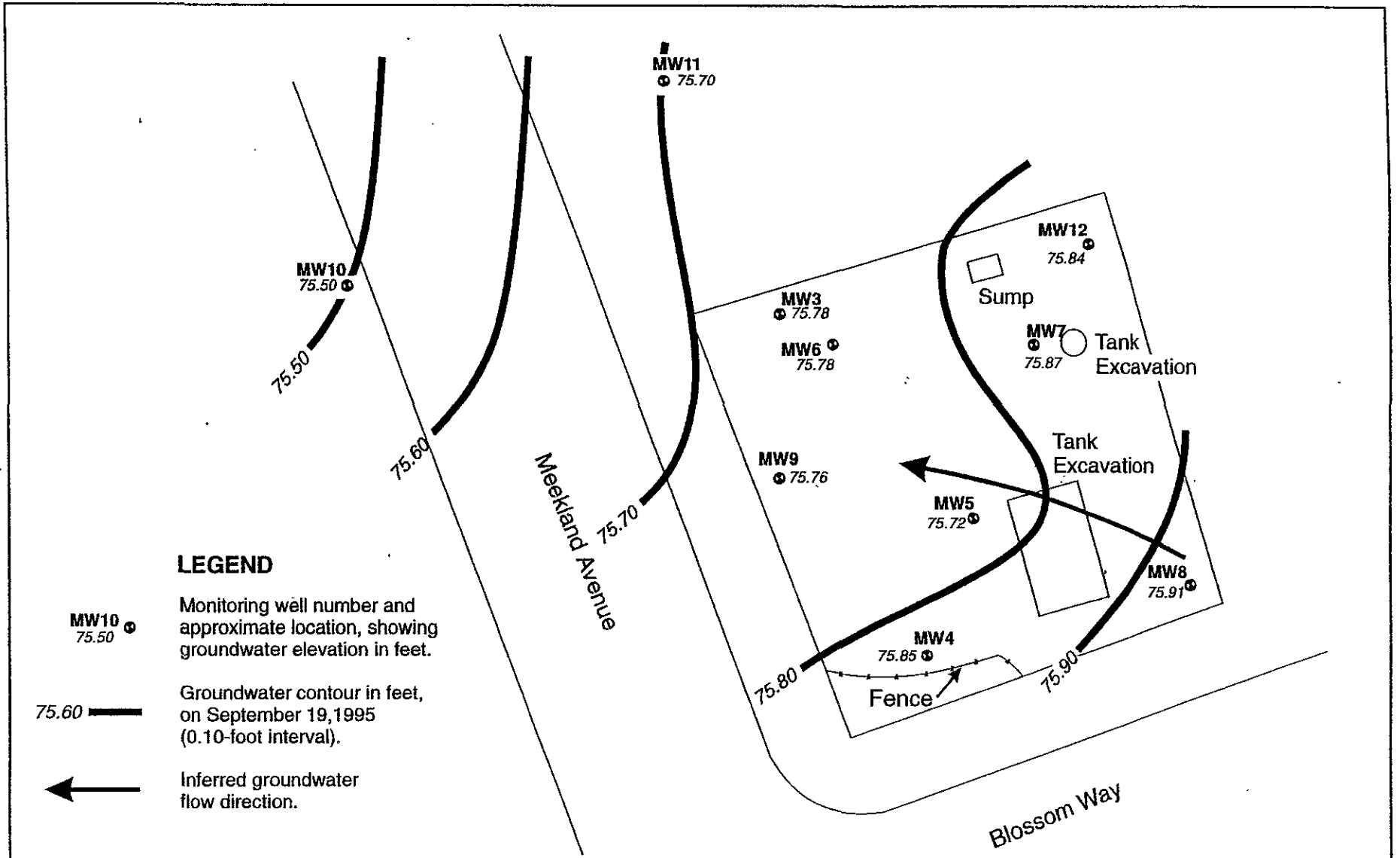
AGI TECHNOLOGIES

Groundwater Elevation and Contour Map 10/20/94

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 3

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



AGI TECHNOLOGIES

Groundwater Elevation and Contour Map

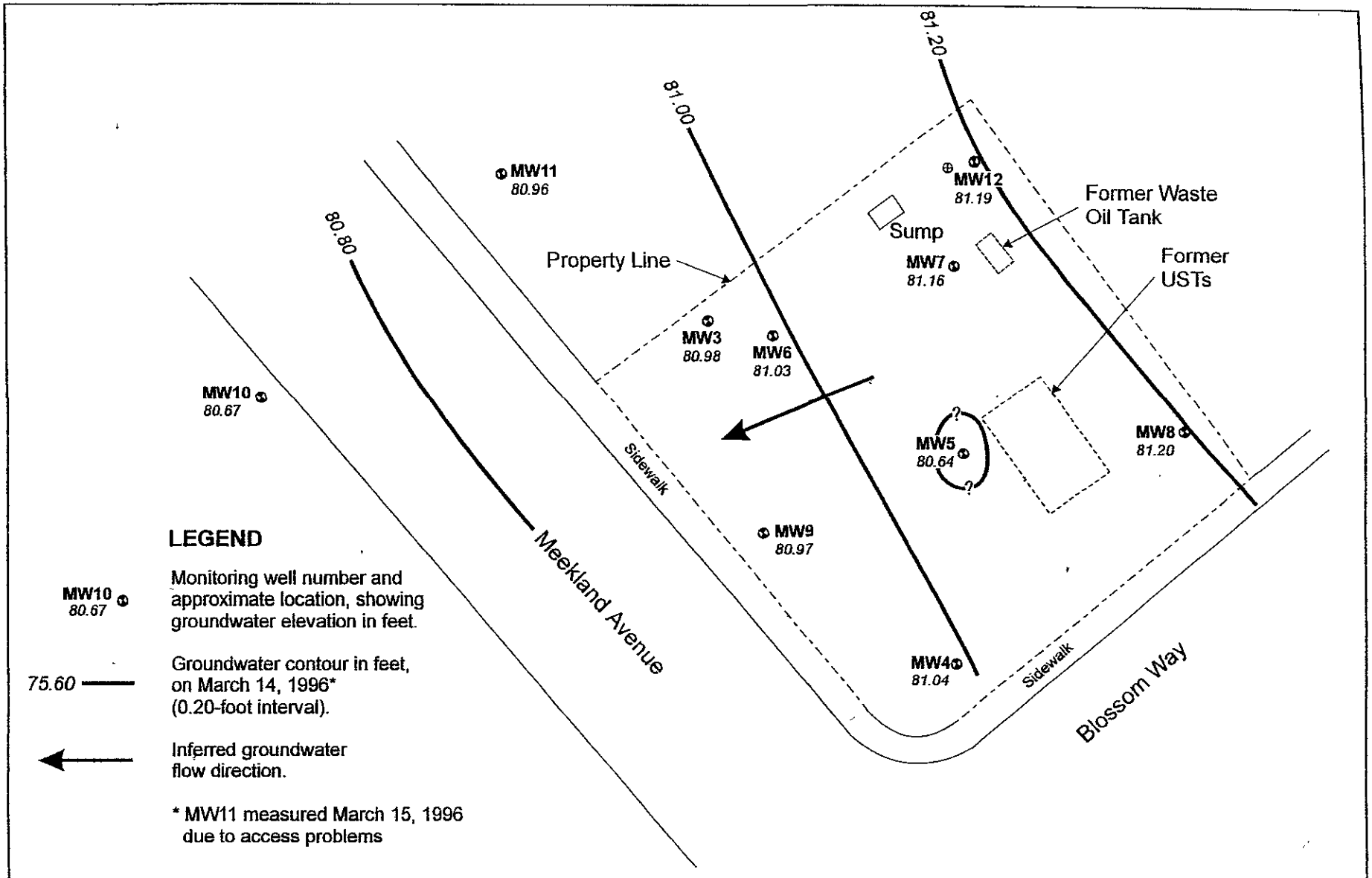
Harbert Transportation/Meekland Avenue
Hayward, California

9.19.95

FIGURE 3

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

grdwat.cdr



AGI TECHNOLOGIES

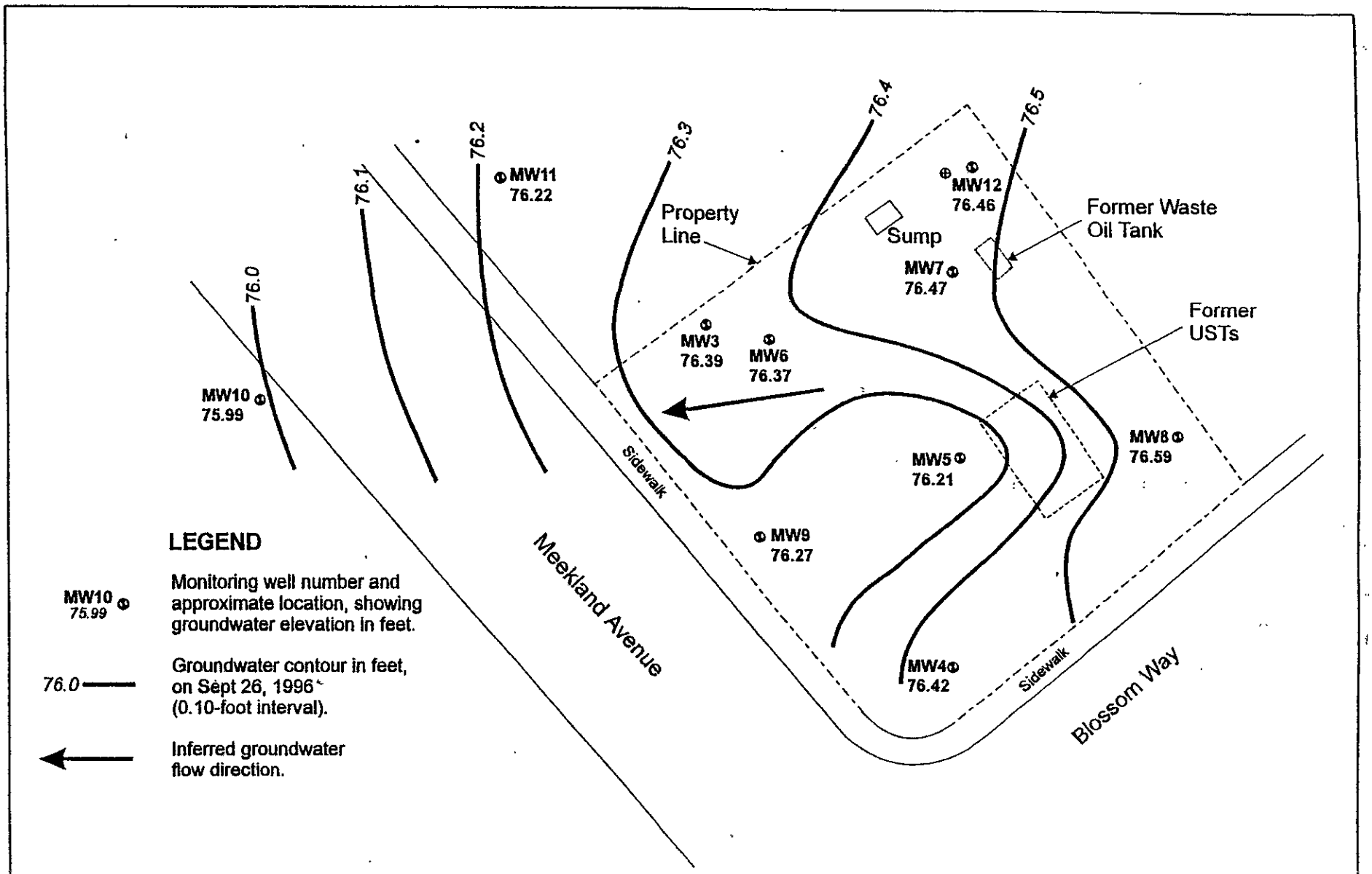
Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

3.14.96

FIGURE 3

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



AGI TECHNOLOGIES

Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

9.26.96

FIGURE 3

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

Appendix C

Certified Analytical Report - Groundwater Samples

Entech Analytical Labs, Inc.

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

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

Date: 1/26/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-003 **Client Sample ID:** MW-5

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	1/18/01	WMS2010117	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	106	65 - 135
Dibromofluoromethane	107	65 - 135
Toluene-d8	100	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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

Weber, Hayes & Associates

RECEIVED FEB 1 2001

January 26, 2001

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

Order: 23984
Project Name: Harbert Transportation
Project Number: H9042.Q
Project Notes:

Date Collected: 1/12/01
Date Received: 1/15/01
P.O. Number:

On January 15, 2001, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Liquid	MTBE by EPA 8260B	EPA 8260B

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

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

Sincerely,

Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

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

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

Date: 1/26/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-004 **Client Sample ID:** MW-6

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	1/22/01	WMS2010119	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	103	65 - 135
Dibromofluoromethane	104	65 - 135
Toluene-d8	99	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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

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

Date: 1/26/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-005 **Client Sample ID:** MW-7

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	1/18/01	WMS2010117	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	65 - 135
Dibromofluoromethane	106	65 - 135
Toluene-d8	101	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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

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

Date: 1/26/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-007 **Client Sample ID:** MW-9

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	1/18/01	WMS2010117	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105	65 - 135
Dibromofluoromethane	102	65 - 135
Toluene-d8	100	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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

Quality Control Results Summary

QC Batch #: WMS2010117 **Units:** µg/L
Matrix: Liquid **Date Analyzed:** 1/17/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8260B											
1,1-Dichloroethene	EPA 8260B	ND		40		34.9	LCS	87.3			65.0 - 135.0
Benzene	EPA 8260B	ND		40		40.7	LCS	101.8			65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		40		37.5	LCS	93.8			65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		40		41.6	LCS	104.0			65.0 - 135.0
Toluene	EPA 8260B	ND		40		36.9	LCS	92.3			65.0 - 135.0
Trichloroethene	EPA 8260B	ND		40		36.4	LCS	91.0			65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	106	65 - 135
Dibromofluoromethane	103	57 - 139
Toluene-d8	98	65 - 135

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8260B											
1,1-Dichloroethene	EPA 8260B	ND		40		34.8	LCSD	87.0	0.29	25.00	65.0 - 135.0
Benzene	EPA 8260B	ND		40		40.2	LCSD	100.5	1.24	25.00	65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		40		37.4	LCSD	93.5	0.27	25.00	65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		40		39.4	LCSD	98.5	5.43	25.00	65.0 - 135.0
Toluene	EPA 8260B	ND		40		37.0	LCSD	92.5	0.27	25.00	65.0 - 135.0
Trichloroethene	EPA 8260B	ND		40		36.5	LCSD	91.3	0.27	25.00	65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	103	65 - 135
Dibromofluoromethane	101	57 - 139
Toluene-d8	99	65 - 135

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Quality Control Results Summary

QC Batch #: WMS2010119 **Units:** µg/L
Matrix: Liquid **Date Analyzed:** 1/19/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8260B											
1,1-Dichloroethene	EPA 8260B	ND		40		40.9	LCS	102.3			65.0 - 135.0
Benzene	EPA 8260B	ND		40		44.7	LCS	111.8			65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		40		39.3	LCS	98.3			65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		40		44.8	LCS	112.0			65.0 - 135.0
Toluene	EPA 8260B	ND		40		39.3	LCS	98.3			65.0 - 135.0
Trichloroethene	EPA 8260B	ND		40		39.9	LCS	99.8			65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	104	65 - 135
Dibromofluoromethane	104	57 - 139
Toluene-d8	98	65 - 135

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8260B											
1,1-Dichloroethene	EPA 8260B	ND		40		40.4	LCSD	101.0	1.23	25.00	65.0 - 135.0
Benzene	EPA 8260B	ND		40		43.5	LCSD	108.7	2.72	25.00	65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		40		39.0	LCSD	97.5	0.77	25.00	65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		40		42.5	LCSD	106.3	5.27	25.00	65.0 - 135 0
Toluene	EPA 8260B	ND		40		39.1	LCSD	97.8	0.51	25.00	65.0 - 135.0
Trichloroethene	EPA 8260B	ND		40		39.3	LCSD	98.3	1.52	25.00	65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	103	65 - 135
Dibromofluoromethane	102	57 - 139
Toluene-d8	98	65 - 135

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8260B											
1,1-Dichloroethene	EPA 8260B	ND	24029-004	25	ND	24.9	MS	99.6			65.0 - 135.0
Benzene	EPA 8260B	ND	24029-004	25	ND	25.9	MS	103 6			65.0 - 135.0
Chlorobenzene	EPA 8260B	ND	24029-004	25	ND	23.3	MS	93.2			65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND	24029-004	25	ND	27.3	MS	109.2			65.0 - 135.0
Toluene	EPA 8260B	ND	24029-004	25	ND	23.0	MS	92.0			65.0 - 135.0
Trichloroethene	EPA 8260B	ND	24029-004	25	ND	24.5	MS	98.0			65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	104	65 - 135
Dibromofluoromethane	106	57 - 139
Toluene-d8	98	65 - 135

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8260B											
1,1-Dichloroethene	EPA 8260B	ND	24029-004	25	ND	25.5	MSD	102.0	2.38		65.0 - 135.0
Benzene	EPA 8260B	ND	24029-004	25	ND	26.4	MSD	105.6	1.91		65.0 - 135.0
Chlorobenzene	EPA 8260B	ND	24029-004	25	ND	23.8	MSD	95.2	2.12		65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND	24029-004	25	ND	28.6	MSD	114.4	4.65		65.0 - 135.0
Toluene	EPA 8260B	ND	24029-004	25	ND	23.7	MSD	94.8	3 00		65.0 - 135.0
Trichloroethene	EPA 8260B	ND	24029-004	25	ND	25.0	MSD	100.0	2 02		65.0 - 135.0

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Quality Control Results Summary

QC Batch #: WMS2010119 **Units:** µg/L
Matrix: Liquid **Date Analyzed:** 1/19/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene				104			65 - 135				
Dibromofluoromethane				106			57 - 139				
Toluene-d8				98			65 - 135				

Entech Analytical Labs, Inc.

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January 22, 2001

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

Order: 23984
Project Name: Harbert Transportation
Project Number: H9042.Q
Project Notes:

Date Collected: 1/12/01
Date Received: 1/15/01
P.O. Number:

On January 15, 2001, samples were received under documentented chain of custody. Results for the following analyses are attached:

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

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

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

Sincerely,

Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

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

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-001 **Client Sample ID:** MW-3

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	2.4		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	2.2		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	44		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	10		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	72	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	72	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	310		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	76	65 - 135

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

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

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

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-002 **Client Sample ID:** MW-4

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	82	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	82	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	107	65 - 135

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

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

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Watsonville, CA 95076
Attn: Chad Taylor

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-003 **Client Sample ID:** MW-5

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	62		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	40		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	150		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	290		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	80	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	7.7		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	80	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1100		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	79	65 - 135

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

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Watsonville, CA 95076
Attn: Chad Taylor

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-004 **Client Sample ID:** MW-6

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	16		5	0.5	2.5	µg/L	N/A	1/17/01	WGC2010115	EPA 8020
Toluene	3.5		5	0.5	2.5	µg/L	N/A	1/17/01	WGC2010115	EPA 8020
Ethyl Benzene	290		5	0.5	2.5	µg/L	N/A	1/17/01	WGC2010115	EPA 8020
Xylenes, Total	83		5	0.5	2.5	µg/L	N/A	1/17/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	65	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	5	25	µg/L	N/A	1/17/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	65	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	2300		5	50	250	µg/L	N/A	1/17/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	70	65 - 135

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

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Attn: Chad Taylor

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-005 **Client Sample ID:** MW-7

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	13		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	0.86		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	150		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	35		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	79	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	11		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	79	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1600		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	82	65 - 135

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

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Attn: Chad Taylor

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-006 **Client Sample ID:** MW-8

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	85	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	85	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	112	65 - 135

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

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

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120 Westgate Drive
Watsonville, CA 95076
Attn: Chad Taylor

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-007 **Client Sample ID:** MW-9

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	550		10	0.5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	110		10	0.5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	1200		10	0.5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	2200		10	0.5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	65	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	91		10	5	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	65	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	10000		10	50	500	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	70	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

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

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-008 **Client Sample ID:** MW-10

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	3.7		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	1.9		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	2.1		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	4.5		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	76	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	76	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	530		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	66	65 - 135

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

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Attn: Chad Taylor

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-009 **Client Sample ID:** MW-11

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	2.1		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	92	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	92	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	109	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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

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

Date: 01/22/01
Date Received: 1/15/01
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 23984 **Lab Sample ID:** 23984-010 **Client Sample ID:** MW-12

Sample Time: **Sample Date:** 1/12/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Toluene	1.1		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	88	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	1/16/01	WGC2010115	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	88	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	1/16/01	WGC2010115	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	112	65 - 135

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

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

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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

Quality Control Results Summary

QC Batch #: WGC2010115 **Units:** µg/L
Matrix: Liquid **Date Analyzed:** 1/15/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		561		570.5	LCS	101.7			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
aaa-Trifluorotoluene			107			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		6.2		6.2	LCS	100.0			75.0 - 125.0
Ethyl Benzene	EPA 8020	ND		7.8		7.7	LCS	98.7			75.0 - 125.0
Toluene	EPA 8020	ND		35.8		36.3	LCS	101.4			75.0 - 125.0
Xylenes, total	EPA 8020	ND		43		43.8	LCS	101.9			75.0 - 125.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
aaa-Trifluorotoluene			78			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		50.2	LCS	95.1			75.0 - 125.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
aaa-Trifluorotoluene			78			65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		561		551.1	LCSD	98.2	3.46	25.00	75.0 - 125.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
aaa-Trifluorotoluene			105			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		6.2		6.6	LCSD	106.5	6.25	25.00	75.0 - 125.0
Ethyl Benzene	EPA 8020	ND		7.8		7.5	LCSD	96.2	2.63	25.00	75.0 - 125.0
Toluene	EPA 8020	ND		35.8		35.6	LCSD	99.4	1.95	25.00	75.0 - 125.0
Xylenes, total	EPA 8020	ND		43		42.8	LCSD	99.5	2.31	25.00	75.0 - 125.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
aaa-Trifluorotoluene			82			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		49.5	LCSD	93.8	1.40	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
aaa-Trifluorotoluene			82			65 - 135					

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

LABORATORY: Entech Analytical

SEND CERTIFIED RESULTS TO: Chad Taylor

TURNAROUND TIME: (Normal) 24hr Rush 48hr Rush 72hr Rush

Sample ID# & Depth (sampler: CT)		Date	SAMPLE CONTAINERS				REQUESTED ANALYSIS							
							Total Petroleum Hydrocarbons			Volatile Organics		Additional Analysis		
			40 mL VOAs (preserved)	1 Liter Amber Jars	___mL Poly Bottle	Liner Acetate or Brass	Extractable Fuel-Scan (w/-standard Silica-Gel-Cleanup)	Purgeable Fuel-Scan (w/-MTBE-BTEX)	Gasoline & BTEX-MTBE by EPA Method# 8015M-&-8020	MTBE by EPA Method# 8260	SOLVENTS by EPA Method# 8010	Fuel Oxygenates by EPA Method 8260	Title 22: General, Physical and Inorganic Minerals	
MW-3	23.44'	1/12/01	5				23984-001		X					
MW-4	23.72'		5				002		X					
MW-5	24.06'		5				003		X					
MW-6	23.68'		5				004		X					
MW-7	25.49'		5				005		X					
MW-8	26.34'		5				006		X					
MW-9	23.33'		5				007		X					
MW-10	25.07'		5				008		X					
MW-11	23.29'		5				009		X					
MW-12	24.32'		5				010		X					

01 JAN 15 13:19

RECEIVED BY:	Date & Time	RELEASED BY:	Date & Time	SAMPLE CONDITION: (circle 1)		
1.) Sampler: L.Light	1/11/01 1700	L.Light	1/15/01 1500	Ambient	(Refrigerated)	Frozen
2.) JOE KNAPES	1/15/01 11:00AM	JOE KNAPES	1/15/01 11:50am	Ambient	(Refrigerated)	Frozen
3.) Rajeet Singh	1/15/01 12:00	Rajeet Singh	1/15/01 13:20	Ambient	Refrigerated	Frozen
4.) Mara Gusis	1/15/01 1319		-	Ambient	Refrigerated	Frozen
5.)	-		-	Ambient	Refrigerated	Frozen

NOTES - Lab to complete the following if box is checked:

- [X] *Please report only confirmed MTBE detections by EPA Method 8260 with a minimum detection limit of 5 ug/L.*
- [X] *For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits, please confirm by EPA Method #8260*
- [X] *Please use MDL (Minimum Detection Limit) for any diluted samples*

ADDITIONAL COMMENTS

Appendix D

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

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

AGI TECHNOLOGIES

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

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

AGI TECHNOLOGIES

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

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

AGI TECHNOLOGIES

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

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

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods										
		8015 Modified			8020				8010			Other
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
		µg/L			µg/L				µg/L			µg/L
MW8	02/91	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
	04/91	ND	ND	NA	ND	ND	ND	ND	ND	0.5	ND	
	07/91	ND	ND	NA	ND	ND	2	ND	ND	1.2	ND	
	10/91	ND	ND	NA	ND	ND	0.6	ND	ND	0.4	ND	
	01/92	ND	ND	NA	ND	ND	ND	ND	ND	0.68	ND	
	04/92	ND	ND	NA	ND	ND	ND	ND	ND	0.8	ND	
	07/92	ND	ND	NA	ND	ND	3.3	ND	ND	1.6	ND	
	10/92	ND	ND	NA	ND	ND	ND	ND	ND	1.4	ND	
	01/93	ND	ND	NA	ND	ND	ND	ND	ND	0.8	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	
MW9	02/91	6,000	1,600	NA	180	19	170	200	ND	ND	13	
	04/91	4,200	410 [a]	NA	520	130	410	580	ND	ND	26	
	07/91	1,900	180 [a]	NA	190	12	52	77	ND	6.5	12	
	10/91	880	300 [a]	NA	160	31	44	83	ND	ND	10	
	01/92	380	120 [a]	NA	14	7.6	2.2	14	ND	ND	9.6	
	04/92	2,900	700 [a]	NA	510	80	260	260	ND	ND	11	
	07/92	4,400	1,300 [a]	NA	860	210	340	640	ND	ND	22	
	10/92	200	290 [a]	NA	6.8	1.4	2.1	7.8	ND	ND	12	
	01/93	8,500	740 [a]	NA	2,400	390	620	1,500	ND	ND	29	
	06/93	8,200	1,300 [a]	ND	2,400	360	480	1,500	ND	ND	29	
MW10	01/92	13,000	3,700 [a]	NA	130	580	110	3,000	ND	ND	33	
	05/92	15,000	5,000 [a]	NA	180	ND	18	2,700	ND	ND	20	
	05/92 (dup)	13,000	7,500 [a]	NA	240	490	65	2,500	ND	ND	22	
	07/92	8,100	4,400 [a]	NA	74	360	ND	1,100	ND	ND	29	
	10/92	3,200	1,500 [a]	NA	ND	ND	ND	320	ND	ND	25	
	01/93	7,500	2,200 [a]	NA	130	170	20	710	ND	ND	18	
	06/93	8,000	2,100 [a]	ND	69	7.9	ND	490	ND	ND	16	

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

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods: 8015 Modified TPH-G (µg/L)	8015 Modified TPH-D (µg/L)	8015 Modified TPH-MO (µg/L)	8020 Benzene (µg/L)	8020 Ethylbenzene (µg/L)	8020 Toluene (µg/L)	8020 Total Xylenes (µg/L)	8010 TCE (µg/L)	8010 PCE (µg/L)	8010 1,2-DCA (µg/L)	Other (µg/L)
MW11	01/92	8,200	3,200 [a]	NA	23	250	ND	1,100	ND	ND	ND	
	04/92	160	1,200 [a]	NA	ND	ND	ND	ND	ND	ND	ND	
	07/92	2,100	710 [a]	NA	39	100	2.3	53	ND	ND	ND	
	10/92	660	220 [a]	NA	2.9	19	ND	3.8	ND	ND	ND	
	10/92	770	230 [a]	NA	3.2	26	ND	5.7	ND	ND	ND	
	01/93	780	370 [a]	NA	10	2.1	ND	39	ND	ND	ND	
	06/93	2,500	160 [a]	ND	27	99	ND	34	ND	ND	ND	
MW12	12/92	2,800	1,700 [a]	NA	14	ND	ND	ND	ND	ND	ND	
	06/93	1,100	750 [a]	ND	19	21	ND	57	ND	ND	ND	
B1	01/93	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
F3	02/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Well Abandoned	12/89	1,800	NA	NA	200	24	18	34	ND	ND	0.15	Lead 2,100
Average [b]		8,865	1,883	250	1,562	235	517	871	0.21	0.41	24.8	
Laboratory Detection Limit		50	50	500	0.5	0.5	0.5	0.5	0.4	0.4	0.4	

Notes:

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

AGI TECHNOLOGIES

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

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

AGI TECHNOLOGIES

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

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW8	07/28/94	ND	78 [a]	ND	ND	ND	ND	ND	ND	ND
	10/21/94	ND	ND	ND	ND	ND	ND	ND	0.72	ND
	09/15/95	ND	ND	ND	ND	ND	ND	ND	0.74	ND
	03/14/96	ND	ND	ND	ND	ND	ND	ND	0.63	ND
	09/26/96	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW9	07/28/94	6,000	1,300 [c]	90	170	27	370	26	ND	ND
	10/21/94	6,900	600	1,800	280	220	1,500	31	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW10	07/28/94	6,700	2,000 [c]	99	180	57	430	13	ND	ND
	10/21/94	8,600	2,000	93	200	ND	680	12	ND	ND
	09/15/95	2,100	1,900	9.9	49	ND	4.9	ND	ND	ND
	03/14/96	6,800	2,000 [b]	64	98	ND	33	6.5	ND	ND
	09/26/96	7,100	420	140	210	ND	32	9.1	ND	5.9
MW11	07/28/94	450	150 [a]	6.2	20	1.1	6.6	ND	ND	ND
	10/21/94	460	190	4.9	14	ND	12	ND	ND	ND
	09/15/95	9,600	550	130	180	ND	130	8.8	ND	5.6
	03/15/96	780	310 [b]	0.74	25	ND	1.8	ND	ND	ND
	09/26/96	480	710	ND	50	ND	ND	ND	ND	ND

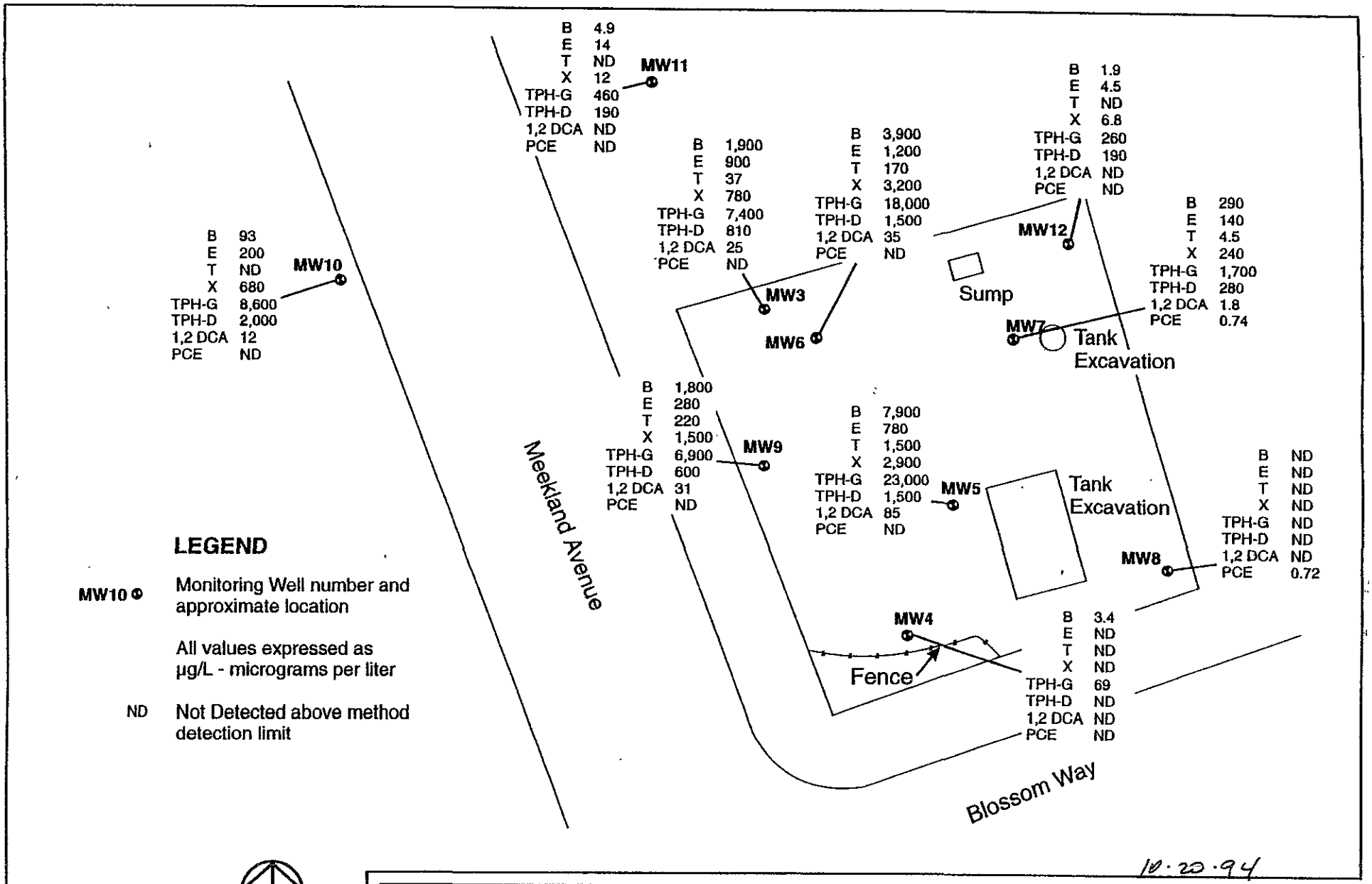
AGI TECHNOLOGIES

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

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

Notes:

a) Hydrocarbons quantified as diesel are primarily due to discrete peaks not indicative of diesel fuel.
b) Hydrocarbons quantified as diesel are primarily due to the presence of a lighter petroleum product (C_6-C_{12}), possibly gasoline.
c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product (C_6-C_{12}) and discrete peaks not indicative of diesel fuel.
1,2-DCE - 1,2-dichloroethane.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
ND - Not detected at or above method detection limit.
NS - Not sampled.
TPH-Gasoline - Total petroleum hydrocarbons quantified as gasoline.
TPH-Diesel - Total petroleum hydrocarbons quantified as diesel.
µg/L - Micrograms per liter, equivalent to parts per billion.



10.20.94

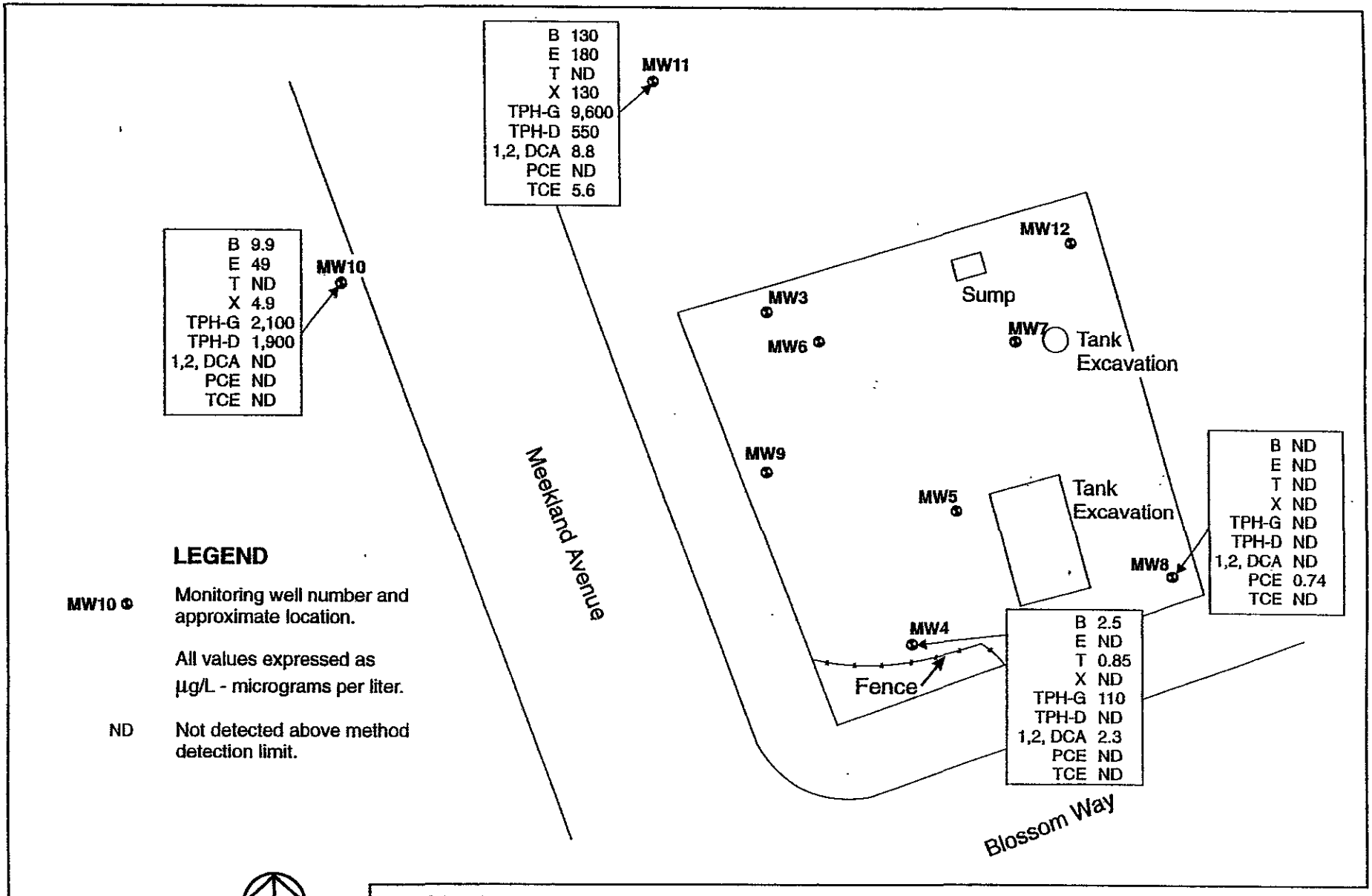
AGI TECHNOLOGIES

Site Plan

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

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



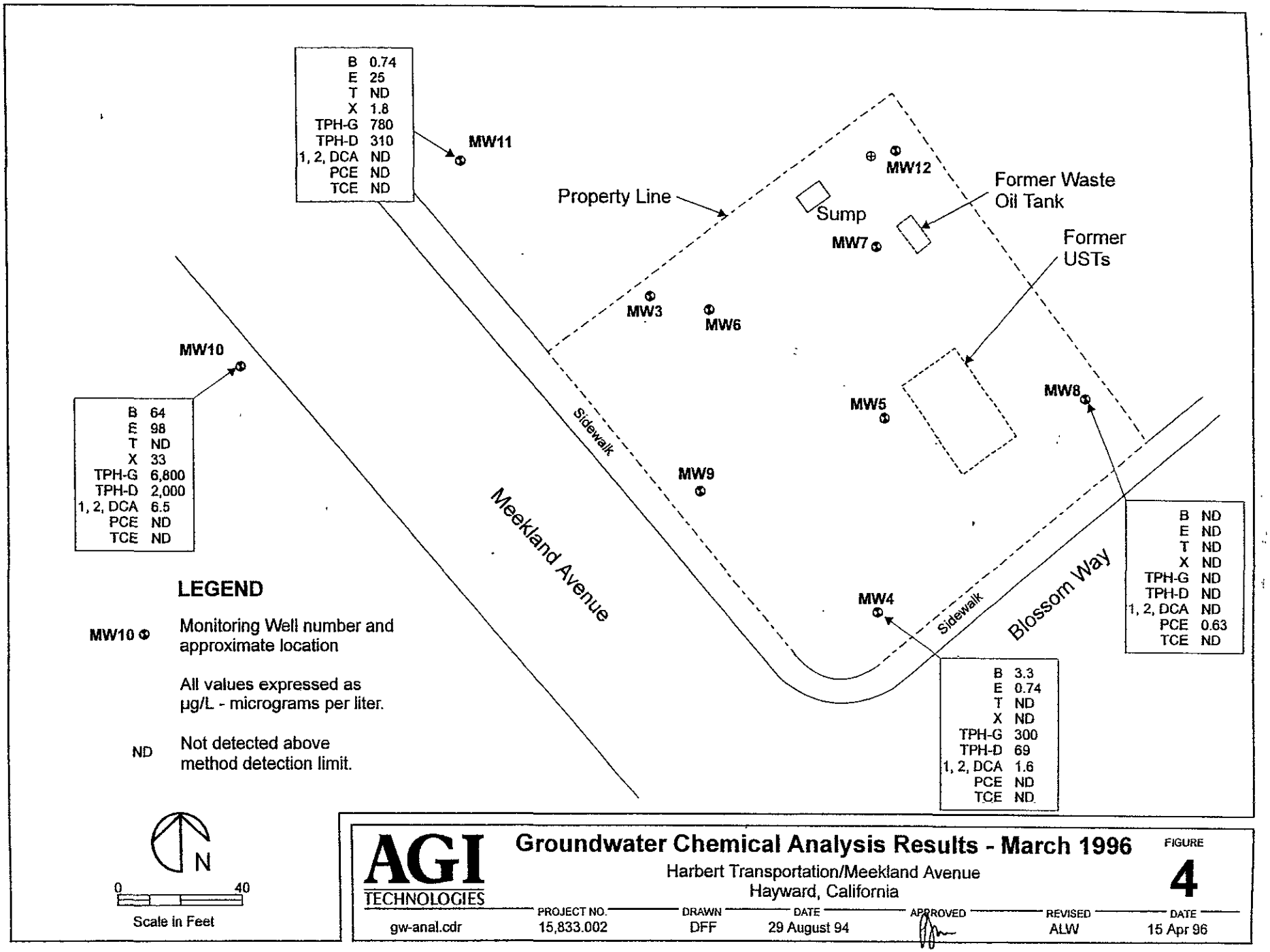
AGI TECHNOLOGIES

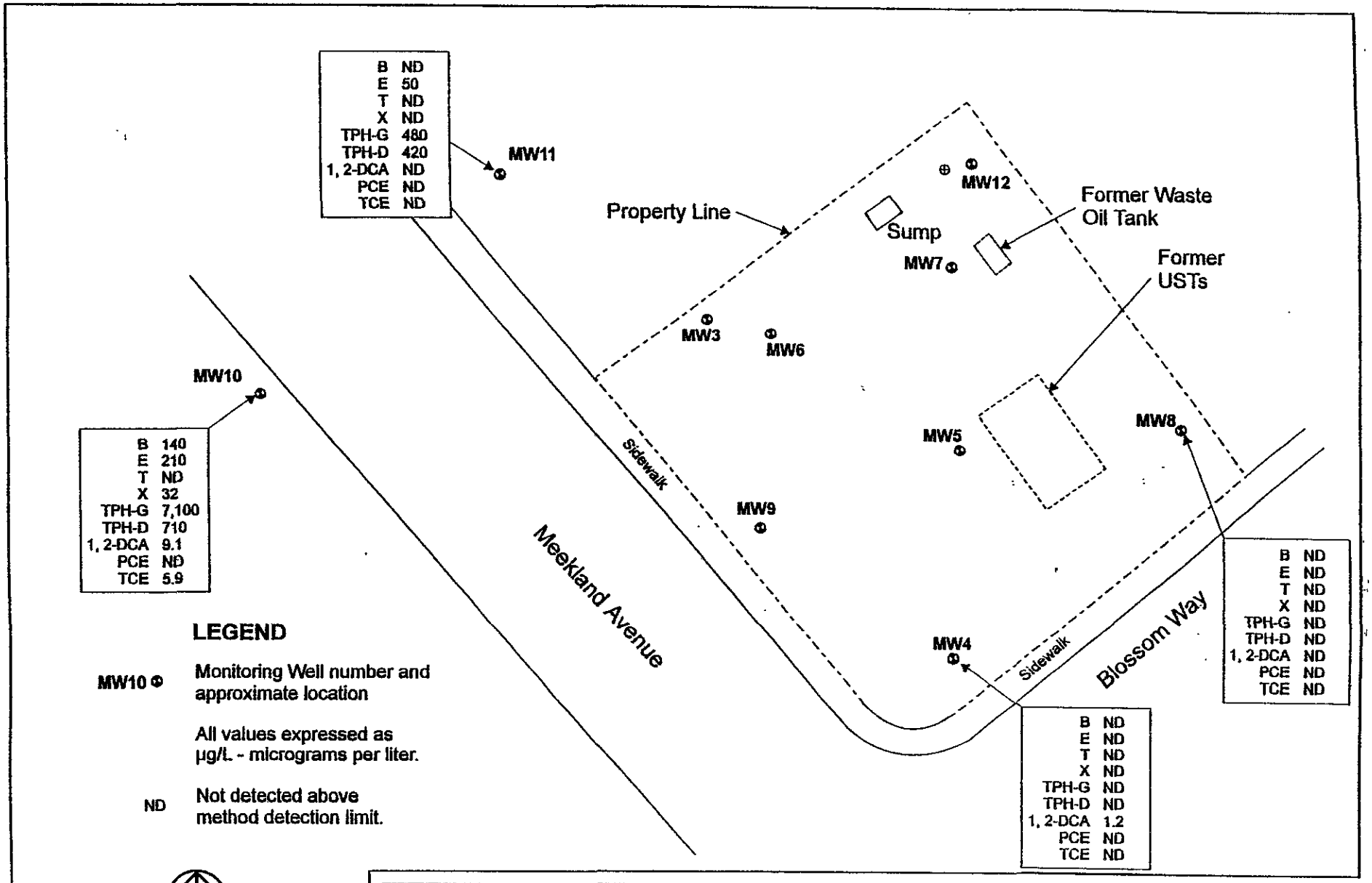
Groundwater Chemical Analysis Results - 9/15/95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

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


B 0.74
E 25
T ND
X 1.8
TPH-G 780
TPH-D 310
1, 2, DCA ND
PCE ND
TCE ND
MW11
MW12
Property Line
Sump
Former Waste Oil Tank
MW7
Former USTs
MW3
MW6
MW10
B 64
E 98
T ND
X 33
TPH-G 6,800
TPH-D 2,000
1, 2, DCA 6.5
PCE ND
TCE ND
Sidewalk
MW5
MW8
MW9
Meekland Avenue
B ND
E ND
T ND
X ND
TPH-G ND
TPH-D ND
1, 2, DCA ND
PCE 0.63
TCE ND
MW4
Sidewalk
Blossom Way
B 3.3
E 0.74
T ND
X ND
TPH-G 300
TPH-D 69
1, 2, DCA 1.6
PCE ND
TCE ND
LEGEND
MW10
Monitoring Well number and approximate location
All values expressed as µg/L - micrograms per liter.
ND
Not detected above method detection limit.
N
0
40
Scale in Feet
AGI TECHNOLOGIES
Groundwater Chemical Analysis Results - March 1996
Harbert Transportation/Meekland Avenue
Hayward, California
FIGURE
4
PROJECT NO.
15,833.002
DRAWN
DFF
DATE
29 August 94
APPROVED
REVISED
ALW
DATE
15 Apr 96
gw-anal.cdr



Groundwater Chemical Analysis Results - September 1996

FIGURE 4

Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

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