Original
GW flow was miscalculated in original report - that report had GW going SW.

GROUNDWATER QUALITY INVESTIGATION REPORT

ALBANY HILL MINI MART
ALBANY, CALIFORNIA

Do another quarter of sampling/monitoring. If GW to SW, need mw SW of USTs (in store or behind store)

Analyze GW for TPHg TPHd, BTEX, + MTBE. No need for ORC or other enhanced remediation at this time

Prepared for:

Mr. Mohinder S. & Dr. Joginder Sikand
800 San Pablo Avenue
Albany, California 94706

November 15, 1999

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

2380 Salvio Street, Suite 202
Concord, CA 94520
Phone: (925) 363-1999
Fax: (925) 363-1998
e-mail: aars@ccnet.com

99 NOV 17 PM 4:23
ENVIRONMENTAL PROTECTION

ADVANCED ASSESSMENT AND REMEDIATION SERVICES (AARS)

2380 SALVIO STREET, SUITE 202
CONCORD, CALIFORNIA 94520-2137
TEL: (925) 363-1999 FAX: (925) 363-1998
e-mail: aars@ccnet.com

November 15, 1999

Ms. Eva Chu
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: **Submittal of Revised Groundwater Quality Investigation Report for Petroleum Hydrocarbon Contaminated Soil and Groundwater Site Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California**

Dear Ms. Chu:

As per our telephone conversation on November 15, 1999, we are enclosing a revised version of the above-referenced report. The original version, dated September 15, 1999 had an inconspicuous groundwater elevation error that eluded several technical reviewers. Please replace the original version of the report with this corrected version, and return it to us in the enclosed self-addressed stamped envelop.

Please call us if you have any questions.

Sincerely,

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G., R.E.A.
Principal

Enclosure

cc: Mr. Mohinder Sikand & Dr. Joginder Sikand, Albany, California

TG/AHMMSIRV.RPT

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APPENDICES

GROUNDWATER QUALITY INVESTIGATION

at

Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

INTRODUCTION

This report presents the results and findings of the preliminary site investigation conducted by Advanced Assessment and Remediation Services (AARS) at the Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California. The work performed was based on the results of soil and groundwater sampling conducted during underground storage tanks (UST) removal. Analytical results of the soil and groundwater samples from the tank excavation detected a significant amount of contamination at the site. This work was performed pursuant to the requirements of Alameda County Department of Environmental Health (ACDEH) as described in the Work Plan for Groundwater Quality Investigation by AARS dated June 28, 1999.

1.1 Purpose and Objectives

The primary goals of this Site Investigation report are to:

1. Document all site assessment work performed at the site;
2. Address the concerns of the ACDEH and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB);
3. Develop an appropriate course of action for additional investigation or remediation, if warranted, in accordance with regulatory agency requirements.

1.2 Scope of Work

For this preliminary Site Investigation, AARS has performed the following tasks:

1. Summarized the previous site activities;
2. Submitted a Work Plan and Health and Safety plan;
3. Acquired the necessary permits for field activities;
4. Installed three soil borings, and converted them to three groundwater monitoring wells;
5. Screened soil samples in the field for volatile organic compounds (VOCs) and submitted the selected soil samples for laboratory analysis;

6. Developed, sampled and surveyed monitoring wells;

7. Analyzed soil and groundwater samples for specified constituents;

8. Evaluated soil and groundwater sampling and analytical results and other data;

9. Prepared a report presenting the results and findings of the above activities and appropriate recommendations.

2.0 SITE CHARACTERISTICS

A brief description of the site location and summary of past activities is presented below.

2.1 Site Description

The project site is located at 800 San Pablo Avenue, Albany, California. The site is set in a commercial development and consists of an occupied two-story store/office building with a concrete slab-on-grade floor with four gasoline pump islands.

The property is bounded by San Pablo Avenue to the east, and commercial development (United Transmission) to the south. An apartment complex is located west of the property. Washington Avenue bounds the property on the north.

The site is located at an elevation of approximately 45 feet above mean sea level at the foothill of Albany Hill to the west. San Francisco Bay is located approximately 1½ miles southwest of the project site. A site vicinity map and a site plan are presented in Figure 1 and Figure 2 respectively.

2.2 Site History

According to Mr. Sikand (present owner) the site was an automotive repair shop and a gas station, since 1930. Mr. Sikand purchased the property in 1973. At that time three USTs (two 500-gallon regular and one 1000-gallon super) operated at the site. In 1986, the site was remodeled, three old tanks were removed, four new tanks were installed, and automotive repair operation was ceased.

In March 1997, five underground fuel storage tanks (two 10,000 gallon gasoline tanks, one 6,000 gallon gasoline tank, one 2,000 gallon diesel tank, and one 750 gallon tank) were excavated and removed by Superior Underground Tank Services (SUTS). The fifth tank was discovered during over-excavation activities. Soil samples were collected from excavations. Analytical results indicated that the Total Petroleum Hydrocarbon as gasoline (TPHg) and Total Petroleum Hydrocarbon as diesel (TPHd) concentrations up to 3,800 mg/kg and 820 mg/kg respectively, were present in the soil. Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE) constituents were also detected in soil samples. A grab groundwater sample was collected from the pit after the over-excavation. Analytical results of groundwater sample indicated elevated concentrations of TPHg, TPHd, BTEX and MTBE.

A previous report issued for this site entitled:

"Underground Storage Tank Removal Summary Letter Report for Redwood Gasoline Station, 800 San Pablo Avenue, Albany, CA", GeoPlexus, Inc., March 22, 1997.

2.3 Regional Geology and Hydrogeology

The site is located on a broad alluvial plain on the east side of San Francisco Bay. The plain is characterized by nearly level topography. The uppermost lithologic member is the San Antonio Formation of Pleistocene age. The San Antonio sediments were deposited in a complex and ever-changing depositional environment that ranged from alluvial fans to flood plains to lakes to swamps to beaches. **Locally, the alluvial deposits consist largely of interfingered lenses of clayey gravel, sandy and silty clays and sand-clay-silt mixtures. Individual units are discontinuous and difficult to correlate over distance.**

Groundwater at this site is shallow. **Soil borings drilled during July of 1999, encountered groundwater at approximately 12 feet below ground surface (bgs).** However, groundwater level may fluctuate with tidal variations. The general groundwater flow direction is toward San Francisco Bay to the southwest. Not likely

? Soil 12. 6. 5. 5.2

3.0 FIELD METHODS AND PROCEDURES

To assess the nature and extent of contamination in groundwater, three soil borings were drilled on-site. All three soil borings were converted into monitoring wells. Soil samples were collected and classified during drilling, starting at one foot bgs, and selected samples were analyzed for petroleum hydrocarbon constituents specified in Section 4.0. The monitoring wells were developed, sampled and surveyed. The procedures and methods used during field activities were in accordance with the requirements and guidelines of the ACDEH and RWQCB.

3.1 Soil Borings and Sampling

Prior to commencement of drilling activities, permits for the proposed groundwater monitoring wells wells were obtained from the Alameda County Public Works Agency. The work plan was approved by the ACDEH. Underground Service Alert was informed 72 hours prior to drilling. Copies of the permit and the letter of work plan approval are presented in Appendix A.

On July 28, 1999, AARS supervised the drilling of three soil borings. The drilling activities were performed by CAL NEV Geoexploration of Sacramento, California, using a truck-mounted CME 55 drilling rig. All three soil borings MW-1, MW-2 and MW-3 were drilled with an 8-inch diameter hollow-stem auger. Soil borings were drilled to a total depth of 25 feet bgs.

During drilling, soil samples were collected continuously starting at five feet bgs in MW-1 and every five feet starting at five feet bgs in MW-2. Soil samples were collected at five foot intervals starting from seven feet bgs in MW-3. Soil samples were collected using a modified California split-spoon sampler lined with clean brass tubes. One soil sample was collected from each borehole at a depth of 13 to 14 feet bgs, just above the water table and submitted for laboratory analyses. The soil sample tubes were securely sealed with teflon sheets, polyurethane caps and plastic tape. The soil

samples were labeled and placed immediately in an iced cooler for shipment to the analytical laboratory. The soil borings were lithologically logged in the field using the Unified Soil Classification System (USCS). Soil samples were screened in the field using a portable photo ionization detector (PID). Details of the sampling depths are presented in boring logs in Appendix B.

3.2 Groundwater Monitoring Well Construction

Soil borings MW-1, MW-2 and MW-3 were converted into groundwater monitoring wells and completed to a total depth of 25 feet bgs. Each monitoring well was constructed with one 10-foot section of flush-threaded, two-inch diameter, schedule 40, PVC blank casing and one 10-foot and one five-foot section of two-inch diameter, 0.020-inch, slotted schedule 40, PVC casing, which extends to a depth of at least 10 feet beneath the water table. The annular space surrounding the screened portion was backfilled with #3 Lonestar sand to 2 feet above the top of the screened section. A 2-foot-thick bentonite annular seal was placed above the filter pack. The remaining annulus was grouted with neat cement to the surface. A well box was installed slightly above grade with a locking watertight well cap to ensure the integrity of the well. Monitoring well construction details are included in Appendix B.

15' & 10 ft

3.3 Monitoring Well Development and Sampling

Well development and sampling procedures were conducted in accordance with RWQCB guidelines and ACEHD requirements.

Monitoring wells MW-1, MW-2 and MW-3 were developed on July 30, 1999, by removing a minimum of 10 casing volumes of water from the wells with a two-inch-diameter porcelain bailer. All three monitoring wells were sampled on August 6, 1999. Three casing volumes of water were removed from each well prior to sampling.

Prior to sampling of wells a groundwater sample was collected from each well for inspection. Groundwater samples from each well were inspected for floating product, sheen and odor. Groundwater samples from all three monitoring wells were clear initially, without floating product or sheen. Petroleum hydrocarbon odor was noted from MW-1 and MW-2 samples. MW-3 water sample was free from odor. During purging of the wells and prior to sampling, pH, specific conductivity, and temperature measurements of purged water were recorded and observed to stabilize, indicating that formation water had entered the well. A groundwater sample was then collected from each well at a minimum of 81 % total recovery. Field observations during well development and purging prior to sampling are presented in Appendix C.

The groundwater samples were collected in clean containers and transported in an iced cooler to the laboratory for analysis following standard chain of custody procedures.

3.4 Groundwater Level Monitoring and Surveying

Top-of-well-casing elevations for MW-1 through MW-3 were surveyed on July 30, 1999. A bench mark, with an assumed elevation of 100.00 feet (above mean sea level), is located at the corner of Washington Avenue and San Pablo Avenue. The bench mark is the top of the southeast bolt

(painted white) in the street signal light base; all well elevations are relative to this. The elevations at each well were taken on the top of the well casing.

Groundwater levels in each well were measured to the nearest 0.01 foot on August 6, 1999, from the top of the PVC casing using an electric sounder. Groundwater surface elevation contours, based on interpretation of groundwater level and survey data, are presented in Figure 3. Survey data and water level measurements are presented in Table 1.

3.5 Soil Cuttings and Well Development Water Storage and Disposal

Soil cuttings generated during drilling and sampling of the soil borings were stored in properly labeled 55-gallon DOT 17H drums for proper future disposal.

All purged water generated from the well development and sampling, as well as decontamination rinseate, were stored in properly-labeled 55-gallon DOT 17H drums for proper future disposal.

4.0 ANALYTICAL METHODS

All soil and groundwater samples were analyzed by Priority Environmental Labs of Milpitas, California, a California-certified Laboratory. All chemical analyses of soil and groundwater samples were performed using standard test methods of the United States Environmental Protection Agency (EPA) and the California Department of Health Services (Cal-DHS), as discussed below.

4.1 Chemical Analysis of Soil Samples

A total of three soil samples were collected for chemical analysis, one sample from each soil boring at depths of 13½ to 14 feet bgs, in MW-1 and MW-2, and 12½ to 13 feet bgs in MW-3. Soil samples were analyzed for TPHg using EPA Methods 8015, BTEX using EPA Method 8020, MTBE using EPA Method 8020, and TPHd using EPA Methods 8015 modified. One soil sample from MW-1 was analyzed for polynuclear aromatic hydrocarbons (PAH) by using EPA Method 8100.

4.2 Chemical Analysis of Groundwater Samples

All groundwater samples were analyzed for TPHg using EPA Method 8015 modified, BTEX/MTBE using EPA Method 8020, and TPHd using EPA Method 8015 modified. One groundwater sample from MW-1 was analyzed for PAH by using EPA Method 610.

5.0 DISCUSSION OF RESULTS

A brief description of site geology and hydrogeology based on the results of the drilling activities is presented below. The results of the laboratory analysis of the soil and groundwater samples collected during this investigation are also discussed below.

5.1 Site Geology

The subsurface lithology in all three soil borings comprises a fine-grained alluvial material consisting

of stiff clay, poorly sorted clay and silty clay to approximately 13 feet bgs and poorly sorted sand and silty sand to the maximum explored depth of 25 feet bgs. Most of the clays and silty clays are stiff with high plasticity.

5.2 Site Hydrogeology

Groundwater was encountered approximately 17 feet bgs during drilling and stabilized at 15 feet bgs on July 28, 1999. The groundwater elevations from monitoring wells MW-1 through MW-3, as measured on August 6, 1999, were used to develop the groundwater elevation contour map shown in Figure 3. The groundwater flow direction has been calculated to be to the southeast, with an average gradient of approximately 0.02 foot per foot. The average depth to stabilized groundwater in these wells was approximately 12 feet bgs on August 6, 1999, which could vary with seasonal conditions.

5.3 Soil analysis

Analytical results for two soil samples (MW-2/14S and MW-3/13S) indicated concentration of TPHg, BTEX, MTBE, and TPHd below detection limits (nondetect). Only soil sample MW-1/14S was found to contain petroleum hydrocarbons above detection limits, with TPHg at 1.8 parts per million (ppm), TPHd at 2.6 ppm, ethylbenzene at 0.0056 ppm and xylenes at 0.012 ppm. The analytical results of MW-1/14S for PAH was nondetect. Results of soil sample analyses are presented in Table 2. The official laboratory reports and chain of custody documents are included in Appendix D.

5.4 Groundwater Analysis

Groundwater samples from monitoring well MW-1 were found to contain TPHg at 1500 parts per billion (ppb), TPHd at 1200 ppb, and benzene, toluene, ethylbenzene and xylenes at 4.3, 2.9, 9.1 and 28 ppb respectively. The analytical results for the groundwater sample from MW-1 for PAH was nondetect. No petroleum hydrocarbons were detected in samples from MW-3. Only TPHd was detected in the MW-2 groundwater sample at 340 ppb. Analytical results for groundwater samples are presented in Table 3. The official laboratory reports and chain of custody documents are included in Appendix D. The distribution of dissolved-phase hydrocarbons is presented Figures 4.

6.0 SUMMARY OF FINDINGS AND CONCLUSIONS

The findings and conclusions based on the results of the subsurface investigative work performed at the site, as well as on results of previous work, are summarized below.

- The subsurface lithology is predominantly composed of clays and silty clays to approximately 13 feet bgs and poorly sorted sand and silty sand to the maximum explored depth of 25 feet bgs. Most of the clays and silty clays are stiff with high plasticity.

- TPHg and TPHd were detected in only one soil sample from MW-1 at concentrations of 1.8 ppm and 2.6 ppm respectively. BTEX and MTBE compounds were not detected in the soil samples analyzed from MW-2 and MW-3. Ethylbenzene and xylenes were detected in the soil sample from MW-1 at a concentrations of 0.0056 ppb and 0.012 ppb respectively. PAHs were not detected in any of the soil samples analyzed.

- Shallow groundwater at the site has been impacted by petroleum hydrocarbons. Analytical results for groundwater samples indicate concentrations of TPHg at 1500 ppb in MW-1, TPHd at 340 and 1,200 ppb in MW-2 and MW-1, respectively, and B, T, E, and X at 4.3, 2.9, 9.1 and 28 ppb respectively in MW-1.

- Highest concentrations of TPHg and TPHd occur in groundwater samples from MW-1, which is located in the southwestern end of the property.

- The groundwater flow direction has been calculated to be to the southeast, with an average gradient of approximately 0.02 foot per foot. The average depth to stabilized groundwater in these wells was approximately 12 feet bgs on August 6, 1999.

- The nature and extent of groundwater contaminant plume can not be further defined because of limited access.

7.0 RECOMMENDATIONS

The primary issue requiring resolution is remediating the hydrocarbon plume for an expedited site closure. To address this, AARS recommends:

1. Treatment of the plume with oil consuming bacteria or oxygen releasing compound.

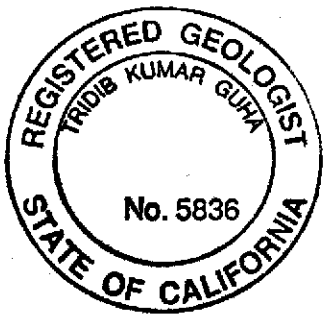
2. Initiation of a regular quarterly groundwater monitoring and sampling program at the site to establish a history for water levels, hydrocarbon concentrations and dissolved oxygen.

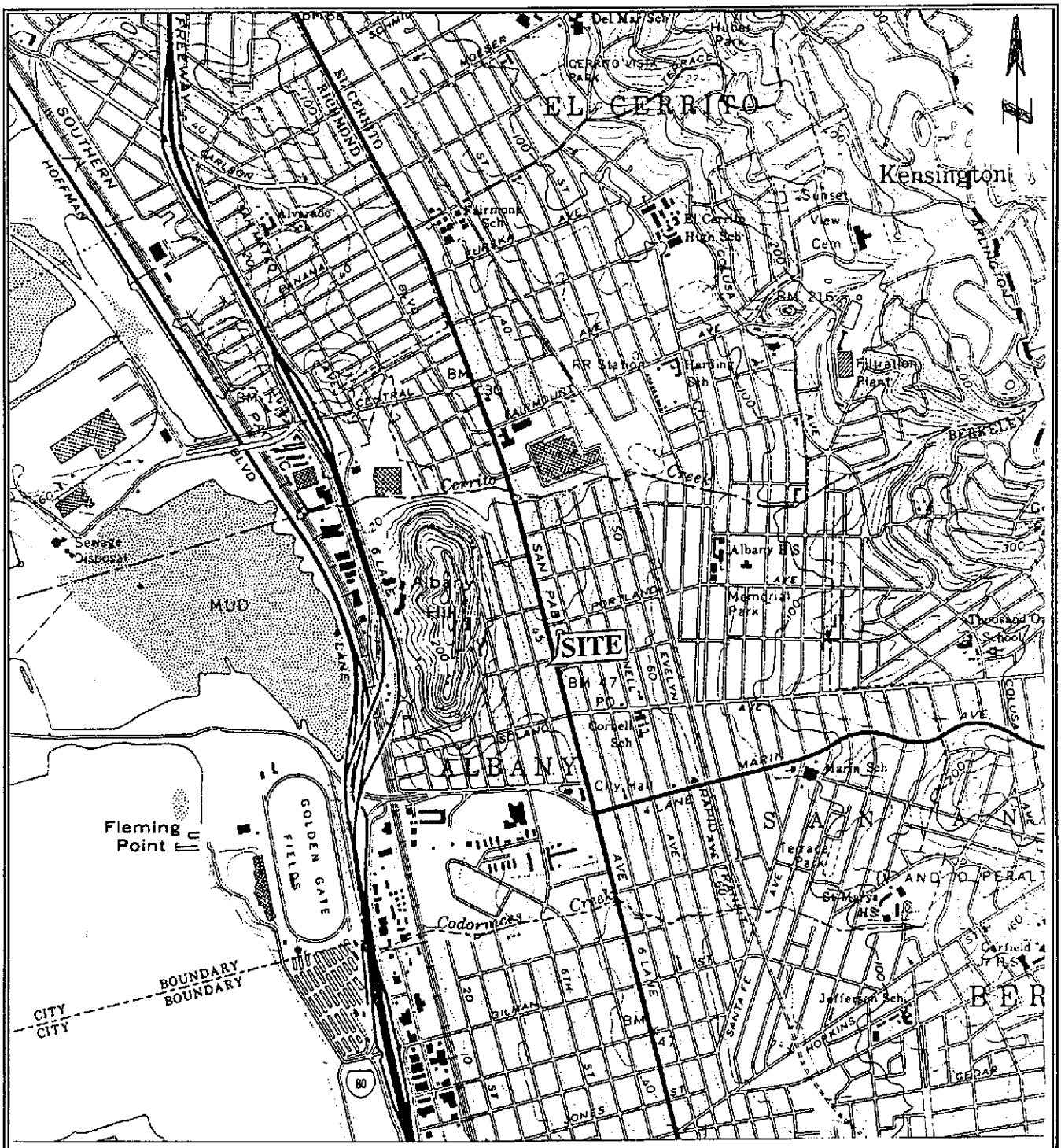
8.0 CERTIFICATION

The information provided in this report is based on the recent site investigation and previous work conducted at the site. All data presented in this report is believed to be factual and accurate, unless proven otherwise. Any conclusions or recommendations provided within are based on our expertise and experience conducting work of a similar nature.

Advanced Assessment and Remediation Services

Tridib K. Guha
Registered Geologist Number 5836





Source: U.S.G.S. Map Richmond Quadrangle
7.5 Minute Series (Topographic)
Aerial Photograph taken 1959 Map Edited 1980

FIGURE 1: SITE VICINITY MAP
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, California

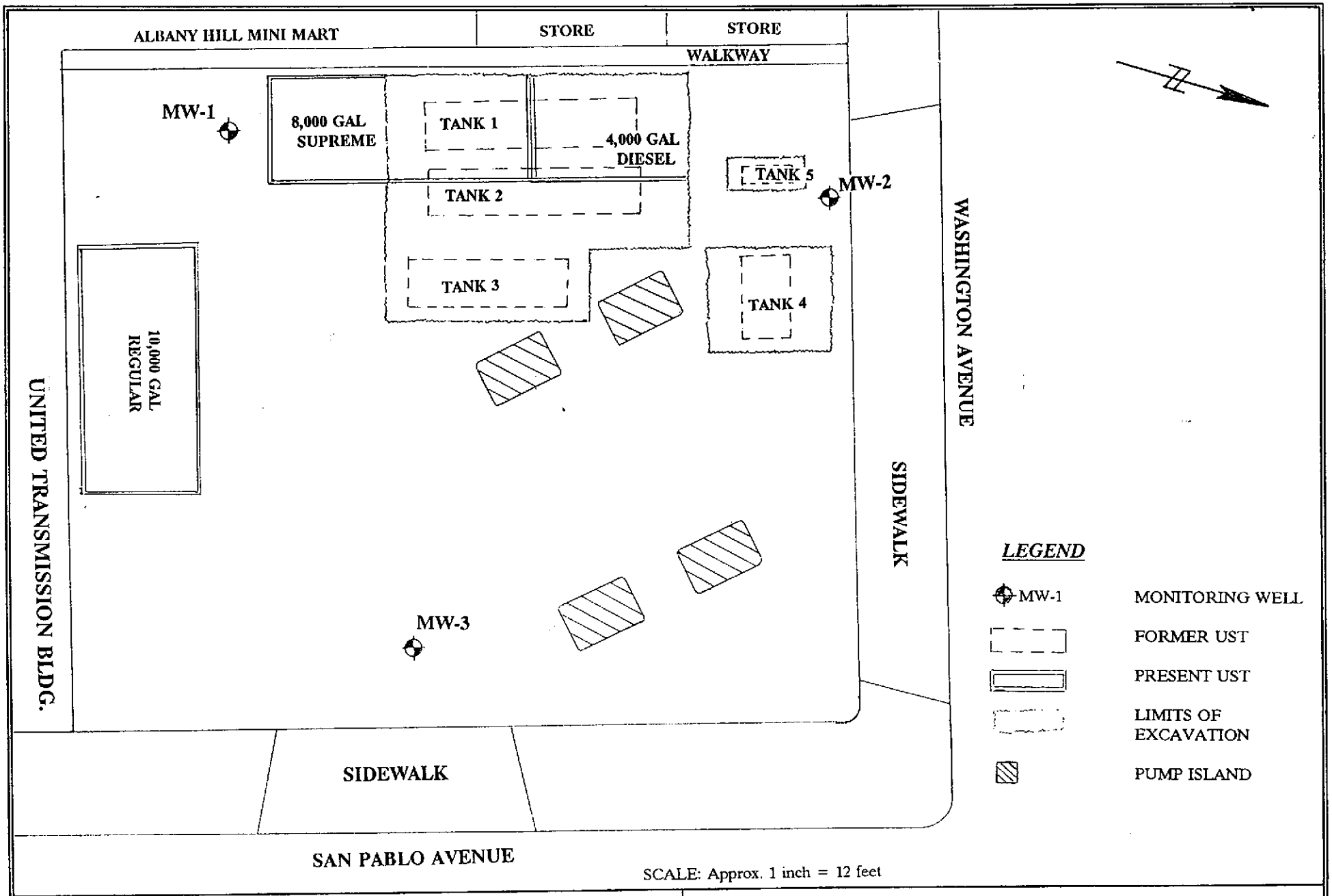
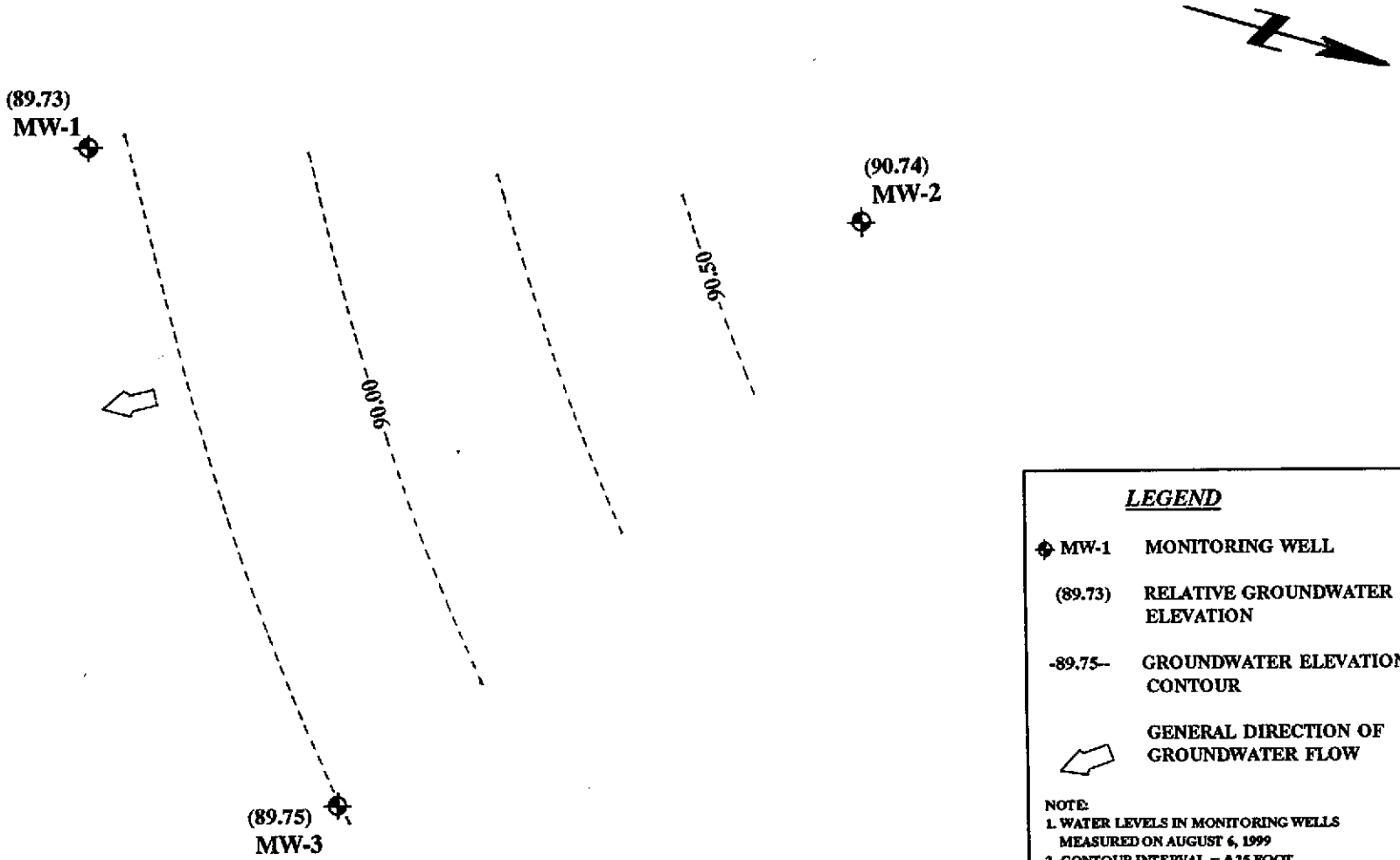


FIGURE 2: SITE PLAN
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

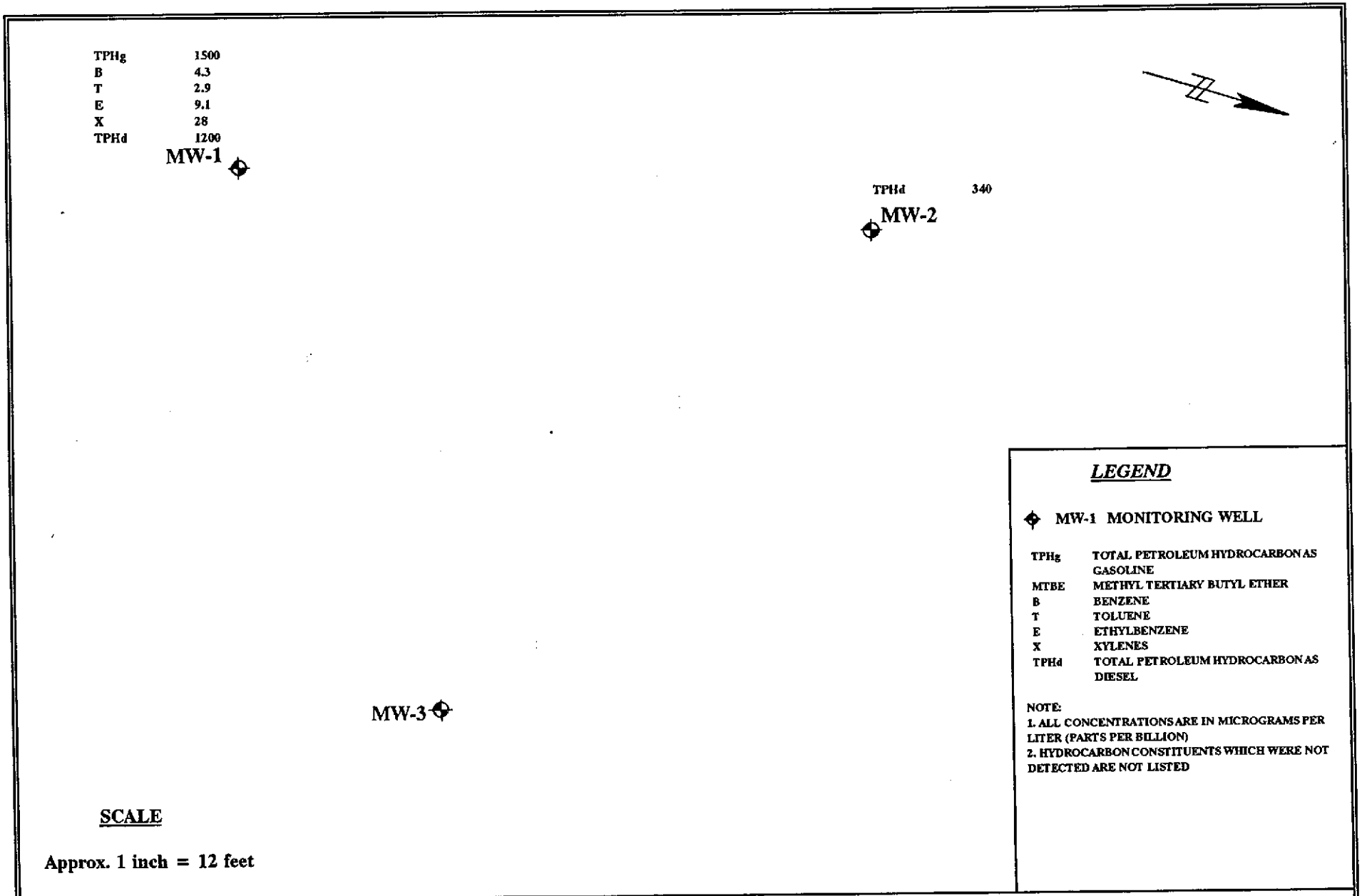
ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, California 94520



Scale:
Approximately 1 inch = 12 feet

FIGURE 3: GROUNDWATER SURFACE ELEVATIONS (8/6/99)
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, California 94520



LEGEND

MW-1 MONITORING WELL

TPHg	TOTAL PETROLEUM HYDROCARBON AS GASOLINE
MTBE	METHYL TERTIARY BUTYL ETHER
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
TPHd	TOTAL PETROLEUM HYDROCARBON AS DIESEL

NOTE:
1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (PARTS PER BILLION)
2. HYDROCARBON CONSTITUENTS WHICH WERE NOT DETECTED ARE NOT LISTED

SCALE

Approx. 1 inch = 12 feet

FIGURE 4: DISTRIBUTION OF DISSOLVED-PHASE HYDROCARBONS
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, California 94520

TABLE 1: SURVEY AND WATER LEVEL MONITORING DATA
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Well No.	Date of Measurement	Top of Casing Elevation (Feet - Relative)	Depth to Groundwater (Feet)	Product Thickness (Feet)	Groundwater Elevation (Feet - Relative)
MW-1	08-06-99	101.68	11.95	0.00	89.73
MW-2	08-06-99	101.57	10.83	0.00	90.74
MW-3	08-06-99	100.33	10.58	0.00	89.75

Note: A bench mark, with an assumed elevation of 100.00 feet (Above Mean Sea Level), is located at the corner of Washington Avenue and San Pablo Avenue. The bench mark is the top of the southeast bolt (painted white) in the street signal light base; all well elevations are relative to this. The elevations at each well were taken on the top of the well casing.

AHMMGWQ.TB1

TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF SOIL SAMPLING
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Sample ID	Date of Sampling	TPHg (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	TPHd (mg/kg)
MW-1/14S	07/28/99	1.8	ND	ND	ND	0.0056	0.012	2.6
MW-1/14S	07/28/99	Polynuclear Aromatic Hydrocarbon Analyses by EPA Method 8100 were non-detect with the detection limit 0.01 mg/kg						
MW-2/14S	07/28/99	ND	ND	ND	ND	ND	ND	ND
MW-3/13S	07/28/99	ND	ND	ND	ND	ND	ND	ND
RL	08/01-05/99	1	0.01	0.005	0.005	0.005	0.005	1

Notes:
ND- Not Detected NA- Not Analyzed RL- Reporting Limit
mg/kg- Milligram per kilogram (parts per million)
TPHg- Total petroleum hydrocarbon as gasoline (EPA method modified 8015)
TPHd- Total petroleum hydrocarbon as diesel (EPA method modified 8015)
MTBE- Methyl Tertiary Butyl Ether (EPA method 8020)
Benzene, toluene, ethylbenzene, and total xylenes (EPA method 8020)
PAH Polynuclear Aromatic Hydrocarbons (EPA method 8100)

TABLE 3: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING
Albany Hill Mini Mart
800 San Pablo Avenue
Albany, California

Sample ID	Date of Sampling	TPHg (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPHd µg/L
MW-1 GW	08/06/99	1500	ND	4.3	2.9	9.1	28	1200
MW-1 GW	08/06/99	Polynuclear Aromatic Hydrocarbon Analyses by EPA method 610 were non-detect with detection limit 1.0 µg/L						
MW-2 GW	08/06/99	ND	ND	ND	ND	ND	ND	340
MW-3 GW	08/06/99	ND	ND	ND	ND	ND	ND	ND
RL	08/07-10/99	50	5	0.5	0.5	0.5	0.5	50

Notes:
ND- Not Detected RL- Reporting Limit NA- Not Analyzed
µg/L- Microgram per liter (parts per billion)
TPHg- Total petroleum hydrocarbon as gasoline (EPA method modified 8015)
TPHd- Total petroleum hydrocarbon as diesel (EPA method modified 8015)
MTBE- Methyl Tertiary Butyl Ether (EPA method 8020)
Benzene, toluene, ethylbenzene, and total xylenes (EPA method 8020)
PAH Polynuclear Aromatic Hydrocarbon (EPA method 610)

AHMMGWQ.TB3

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Albany Hill Mini Mart
800 San Pablo Ave., Albany, CA 94706

California Coordinates Source _____ ft. Accuracy = ___ ft.
CCN _____ ft. CCE _____ ft.
APN _____

CLIENT Mohinder S. & Jogider Singh
Name _____
Address 800 san Pablo Ave. Phone 510-526-8170
City Albany Zip 94706

APPLICANT
Name Advanced Assessment and Remediation Services Fax 925-363-1998
Address 2380 Salvio St. #202 Phone 925-363-1999
City Concord Zip 94520

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☒	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☒
Cable	☐	Other	☐		

DRILLER'S LICENSE NO. C-57 582696

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 25 ft.
Surface Seal Depth 3 ft. Number 3
Attached Figures

GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 07-21-99
ESTIMATED COMPLETION DATE 07-21-99

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 7-12-99

FOR OFFICE USE

PERMIT NUMBER 99WR405
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
(1.) A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2.) Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremie cement grout shall be used in place of compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED [signature] DATE 7-13-

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

StID 8357

July 8, 1999

Mr. Mohinder Sikand
Albany Hill Mini Mart
800 San Pablo Ave
Albany, CA 94706

RE: Work Plan Approval for 800 San Pablo Avenue, Albany, CA

Dear Mr. Sikand:

I have completed review of Advanced Assessment and Remediation Services' June 1999 *Work Plan for Groundwater Quality Investigation* prepared for the above referenced site. The proposal to install three groundwater monitoring wells is acceptable. Please include the analysis for Polynuclear Aromatic Hydrocarbons on the soil and water samples containing the highest concentration of total petroleum hydrocarbons as diesel. Field work should commence with 60 days of the date of this letter, or **by September 10, 1999.**

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Tridib Guha
AARS
2380 Salvio Street, Suite 202
Concord, CA 94520

albanyhill-2

LOG OF EXPLORATORY BORING NO. MW-1

Project: Albany Hill Mini Mart
Drilling Co.: CAL-NEV Geoexploration
Start Date: 7/28/99
End Date: 7/28/99

Drill Method: HSA
Driller: J. Harrison
Drill Rig: CME 55

Logged By: T. Guha
Sampler: Split Spoon
Hole Dia.: 8 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	GRAPHIC LOG	DEPTH	SAMPLE	DRIVEN in	BLOWS/6 inch	OVA (ppm)	WELL CONSTRUCTION DETAIL
CONCRETE FILL - Gravels and fines			0					Christy Box
SILTY CLAY: dark gray, moist, mod. stiff, high plasticity	CL		-5-		6	4 7	20	Neat cement
CLAY: greenish gray, moist, very stiff, high plasticity color changes to light gray	CH		-10-		6 6 6 6 6 6 6 6 6	10 14 17 24 6 11 14	700	Bentonite Seal 2-inch SCH. 40 PVC Blank Casing
SAND: yellowish brown, moist, well sorted SAND: with angular gravels, mottled yellowish dark brown, wet SAND: greenish brown, well sorted, wet	SW		-15-		6 6 6 6 6 6 6 6 6	6 9 15 10 17 17 6 14 20	1800	2-inch SCH.40 0.020 slotted PVC screen
SILTY SAND: yellowish brown, wet	SM		-20- -25-		6 6 6 6	5 20 24		Sand #3 Lonestar End cap
BORE HOLE TERMINATED @ 25 feet			-30-					

ADVANCED ASSESSMENT & REMEDIATION SERVICES
2380 Salvio Street, Suite202
Concord, CA 94520

Note:

Project No. 99005
Page 1 of 1

LOG OF EXPLORATORY BORING NO. MW-2

Project: Albany Hill Mini Mart
Drilling Co.: CAL-NEV Geoexploration
Start Date: 7/28/99
End Date: 7/28/99

Drill Method: HSA
Driller: J. Harrison
Drill Rig: CME 55

Logged By: T. Guha
Sampler: Split Spoon
Hole Dia.: 8 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	GRAPHIC LOG	DEPTH	SAMPLE	DRIVEN in	BLOWS/6 inch	OVA (ppm)	WELL CONSTRUCTION DETAIL
CONCRETE			0					Christy Box
CLAY - dark gray, moist, very stiff, high plasticity	CH		-5-		6	7	0	Neat cement
Color changes to light gray					6	12		Bentonite Seal
color changes to greenish gray			-10-		6	21	820	2-inch SCH. 40 PVC Blank Casing
SILTY SAND: yellowish brown, very moist, soft	SM		-15-		6 6 6 6 6 6 6	7 12 15 6 13 24 14 27 35	900	2-inch SCH.40 0.020 slotted PVC screen
SAND: with angular gravels, yellowish brown, wet	SP		-20-		6 6 6	11 24 37		Sand #3 Lonestar
SILTY SAND: yellowish brown, soft, wet	SM		-25-					End cap
BORE HOLE TERMINATED @ 25 feet			-30-					

ADVANCED ASSESSMENT & REMEDIATION SERVICES
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Concord, CA 94520

Note: .

Project No. 99005
Page 1 of 1

LOG OF EXPLORATORY BORING NO. MW-3

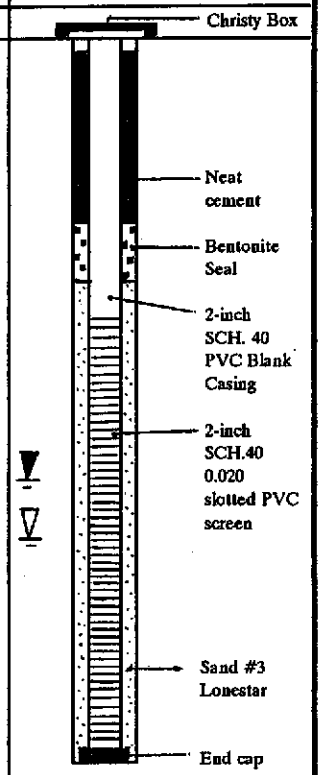
Project: Albany Hill Mini Mart
Drilling Co.: CAL-NEV Geoexploration
Start Date: 7/28/99
End Date: 7/28/99

Drill Method: HSA
Driller: J. Harrison
Drill Rig: CME 55

Logged By: T. Guha
Sampler: Split Spoon
Hole Dia.: 8 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	DEPTH	DRIVEN in	BLOWS/6 inch	OVA (ppm)
CONCRETE PEA GRAVEL		0			0
CLAY: greenish gray, moist very stiff, high plasticity, slight gas odor	CH	-5-	6 6 6	5 9 16	310
SILTY SAND: yellowish brown, very moist, soft	SM	-10-	6 6 6 6	12 14 22 28	720
SAND: with angular gravels, yellowish brown, very moist	SP	-15-			
SILTY SAND: yellowish brown, soft, wet	SM	-20-	6 6 6	14 27 35	
BORE HOLE TERMINATED @ 25 feet		-25-			
		-30-			

WELL CONSTRUCTION DETAIL



ADVANCED ASSESSMENT & REMEDIATION SERVICES
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Concord, CA 94520

Note:

Project No. 99005

UNIFIED SOIL CLASSIFICATION SYSTEM
ASTM D2488-84

MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS OVER 50%>No.200 SIEVE SIZE	GRAVELS MORE THAN 1/2 OF COARSE FRACTION> NO.4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	Well graded gravels or gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GRAVELS WITH OVER 12% FINES	GM	Silty gravels, gravel-sand mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS MORE THAN 1/2 OF COARSE FRACTION< NO.4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	Well graded sands or gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH OVER 12% FINES	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS OVER 50%<No.200 SIEVE SIZE	SILTS & CLAYS LIQUID LIMIT 50% OR LESS		ML	Inorganic siltys and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts andorganic silty clays of low plasticity
	SILTS & CLAYS LIQUID LIMIT GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS			Pt	Peat and other hightly organic solis

SYMBOLS KEY

I	Driven Interval
⊠	Bulk or Classification Sample
■	Laboratory Sample
▣	Undisturbed Samp. for Classification
▽	First encountered groundwater level
▼	Static groundwater level
(10YR 4/4)	Munsell soil color 1990 edition

GRAIN SIZE CHART

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No.4	76.2 to 4.76
coarse	3" to 3/4"	76.2 to 19.1
fine	3/4" to No.4	19.1 to 4.76
SAND	No.4 to No.200	4.76 to 0.074
coarse	No.4 to No.10	4.76 to 2.00
medium	No.10 to No.40	2.00 to 0.420
fine	No.40 to No.200	0.420 to 0.074
SILT & CLAY	Below No.200	Below No.0.074

ADVANCED ASSESSMENT & REMEDIATION SERVICES
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Concord, CA 94520

SOIL CLASSIFICATION CHART AND KEY TO BORING LOG

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart PROJECT NUMBER: 99005

SITE ADDRESS: 800 San Pablo Avenue, Albany, CA

WELL NUMBER: MW-1 WELL CASING DIA.: 2" DATE: 8/6/99

Stagnant Volume Calculation

Total Well Depth (ft) - Initial Depth to Water = Water Column Height (ft) - Time: 9:00

24 11.95 12.05

Water column Height (ft) x Gallons/Linear Foot = Stagnant Volume (Gallons)

12.05 0.17 2

(Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)

Groundwater Inspection

Floating Product (ft. or in.): NONE Sheen/Iridescence: NONE Odor: YES

Time	Volume Purged (gal)	Temperature (degrees F)	pH	Conductivity µS	Color/Turbidity/Other
9:15	0	66.2	6.96	2868	CLEAR
9:25	2	66.6	7.28	2853	TURBID YELLOWISH BROWN
9:35	4	65.9	7.30	2729	" " "
9:45	6	66.4	7.27	2735	" " "

Purged Water Containment Purge Method Used:

6 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 55

Groundwater Sampling Water Level Recovery (Depth to groundwater in feet)

(P) After purging: 12.90 (I) Initially: 11.95 (S) Before sampling: 12.06 Time: 11:55

(P-S)/P-I) x 100 = 100 % Total Recovery: 88%

Sample Containers (How many? Preservatives?)

1 liter amber glass: 2; 40 ml VOA: 2; 500 ml polypropylene:

REMARKS:

SAMPLER: TRIDIB GUHA **SIGNATURE:**

(Print)

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart PROJECT NUMBER: 99005

SITE ADDRESS: 800 San Pablo Avenue, Albany, CA

WELL NUMBER: MW-2 WELL CASING DIA.: 2" DATE: 8/6/99

Stagnant Volume Calculation

Total Well Depth (ft) - Initial Depth to Water = Water Column Height (ft) - Time: 9:02
24 10.83 13.17

Water column Height (ft) x Gallons/Linear Foot = Stagnant Volume (Gallons)
13.17 0.17 2.2

(Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)

Groundwater Inspection

Floating Product (ft. or in.): NONE Sheen/Iridescence: NONE Odor: YES

Time	Volume Purged (gal)	Temperature (degrees F)	pH	Conductivity µS	Color/Turbidity/Other
10:00	0	66.8	7.36	1925	CLEAR
10:10	2	66.9	7.23	1990	TURBID YELLOWISH BROWN
10:20	4	66.9	7.25	1973	" " "
10:30	7	66.9	7.28	1946	" " "

Purged Water Containment Purge Method Used:

7 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 55

Groundwater Sampling Water Level Recovery (Depth to groundwater in feet)

(P) After purging: 11.85 (I) Initially: 10.83 (S) Before sampling: 10.99 Time: 12:10

(P-S)/P-I) x 100 = 100 % Total Recovery: 84%

Sample Containers (How many? Preservatives?)

1 liter amber glass: 2; 40 ml VOA: 2; 500 ml polypropylene:

REMARKS:

SAMPLER: TRIDIB GUHA **SIGNATURE:**

(Print)

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart PROJECT NUMBER: 99005

SITE ADDRESS: 800 San Pablo Avenue, Albany, CA

WELL NUMBER: MW-3 WELL CASING DIA.: 2" DATE: 8/6/99

Stagnant Volume Calculation

Total Well Depth (ft)	-	Initial Depth to Water	=	Water Column Height (ft)	-	Time: 9:04
24		10.58		13.42		

Water column Height (ft)	x	Gallons/Linear Foot	=	Stagnant Volume (Gallons)
13.42		0.17		2.3

(Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)

Groundwater Inspection

Floating Product (ft. or in.): NONE Sheen/Iridescence: NONE Odor: NONE

Time	Volume Purged (gal)	Temperature (degrees F)	pH	Conductivity µS	Color/Turbidity/Other
10:40	0	69.1	7.17	1833	CLEAR
10:50	2	68.7	7.08	1969	TURBID YELLOWISH BROWN
11:00	5	68.7	7.12	1955	" " "
11:10	7	68.9	7.13	1912	MUDDY " "

Purged Water Containment Purge Method Used:

7 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 55

Groundwater Sampling Water Level Recovery (Depth to groundwater in feet)

(P) After purging: 11.46 (I) Initially: 10.58 (S) Before sampling: 10.75 Time: 12:25

(P-S)/P-I) x 100 = 100 % Total Recovery: 81 %

Sample Containers (How many? Preservatives?)

1 liter amber glass: 2 ; 40 ml VOA: 2 ; 500 ml polypropylene: _____

REMARKS:

SAMPLER: TRIDIB GUHA **SIGNATURE:**

(Print)

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

PRIORITY ENVIRONMENTAL LABS
Precision Environmental Analytical Laboratory

August 10, 1999 PEL # 9908005

ADVANCED ASSESSMENT & REMEDIATION SERVICES

Attn: Tridib Guha

Re: Three water samples for Gasoline/BTEX with MTBE and Diesel analyses.

Project name: Albany Hill Mini MArt (AHMM)

Date sampled: Aug 06, 1999 Date submitted: Aug 06, 1999
Date extracted: Aug 7-10, 1999 Date analyzed: Aug 07-10, 1999

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	MTBE (ug/L)
MW-1 GW	1500	1200	4.3	2.9	9.1	28	N.D.
MW-2 GW	N.D.	340	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3 GW	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	88.3%	92.1%	87.6%	81.0%	92.4%	98.9%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030/ 8015	3510/ 8015	602	602	602	602	602

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS
Precision Environmental Analytical Laboratory

August 10, 1999 PEL # 9908005

ADVANCED ASSESSMENT & REMEDIATION SERVICES

Attn: Tridib Guha

Project name: AHMM

Sample I.D.: MW-1 GW

Date sampled: Aug 06, 1999 Date submitted: Aug 06, 1999
Date analyzed: Aug 07-10, 1999

Method of analysis: EPA 610 Detection limit: 1.0 ug/L

COMPOUND NAME	CONCENTRATION (ug/L)	SPIKED RECOVERY (%)
Acenaphthene	N.D.	----
Acenaphthylene	N.D.	----
Anthracene	N.D.	81.4
Benzo(a)anthracene	N.D.	----
Benzo(a)pyrene	N.D.	----
Benzo(b)fluoranthene	N.D.	----
Benzo(ghi)perylene	N.D.	----
Benzo(k)fluoranthene	N.D.	----
Chrysene	N.D.	98.0
Dibenzo(a,h)anthracene	N.D.	----
Fluoranthene	N.D.	82.7
Fluorene	N.D.	90.8
Ideno(1,2,3-cd)pyrene	N.D.	----
Naphthalene	N.D.	----
Phenanthrene	N.D.	----
Pyrene	N.D.	91.3

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

Chain of Custody

1764 Houret Ct. Milpitas,CA.95035 Tel:408-946-9636 Fax:408-946-9663

DATE: 08 / 06 / 99 PAGE: 01 OF: 01

PROJECT MGR.: Tridib Guha,
COMPANY: Advanced Assessment and Remediation Services (AARS)
ADDRESS: 2380 Salvio Street, Suite 202
Concord, CA 94520-2137
PHONE: (925) 363-1999 FAX: (925) 363-1998
SIGNATURE:

SAMPLE ID	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030,8015)	TPH-Gasoline(5030,8015) +/BTEX(EPA 602,8020)	TPH-Diesel (EPA 3510/3550,8015)	PURGEABLE AROMATICS BTEX (EPA 602.8020)	TOTAL OIL & GREASE (EPA 5520 C,D&F)	PESTICIDES/PCB (EPA 608,8080)	TOTAL RECOVERABL HYDROCARBONS (EPA 418.1)	CHLORINATED HYDROCARBONS (EPA 601.8010)	NUMBER OF CONTAINERS
MW-1 GW	8/6/99	12:00	WATER		X	X						4
MW-2 GW	"	12:15	WATER		X	X						4
MW-3 GW	"	12:30	WATER		X	X						4

PEL # 9908005
INV # 28835

TABLE 3

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NAME:	A HMM	TOTAL # OF CONTAINERS	12
PROJECT NUMBER:		RECD. GOOD COND./COLD	Yes

INSTRUCTIONS & COMMENTS: Run 8100 for the sample with highest Diesel concentration

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
TRIDIB GUHA	DAVID DUONG		
SIGNATURE:	SIGNATURE:	SIGNATURE:	SIGNATURE:
Date: 8/6/99 Time: 12:40	Date: 08/06/99 Time: 12:40 PM	Date: Time:	Date: Time:
COMPANY: AARS	COMPANY: PEL	COMPANY:	COMPANY:

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

August 03, 1999 PEL # 9907029

ADVANCED ASSESSMENT & REMEDIATION SERVICES

Attn: Tridib Guha

Re: Three soil samples for Gasoline/BTEX with MTBE and Diesel analyses.

Project name: Albany Hill Mini MArt (AHMM)
Project number: 99005

Date sampled: July 28, 1999 Date submitted: July 29, 1999
Date extracted: Aug 01-02, 1999 Date analyzed: Aug 01-02, 1999

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylene (ug/Kg)	MTBE (ug/Kg)
MW-1/14S	1.8	2.6	N.D.	N.D.	5.6	12	N.D.
MW-2/14S	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3/13S	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	82.0%	88.7%	93.1%	86.4%	85.3%	94.2%	---
Detection limit	1.0	1.0	5.0	5.0	5.0	5.0	10
Method of Analysis	5030 / 8015	3550 / 8015	8020	8020	8020	8020	8020

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel; 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS
Precision Environmental Analytical Laboratory

August 05, 1999 PEL # 9907029

ADVANCED ASSESSMENT & REMEDIATION SERVICES

Attn: Tridib Guha

Project name: Albany Hill Mini Mart (AHMM)
Projecyt number: 99005

Sample I.D.: MW-1/14S

Date sampled: July 28, 1999 Date submitted: July 29, 1999
Date analyzed: Aug 01-05, 1999

Method of analysis: EPA 8100 Detection limit: 10 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKED RECOVERY (%)
Acenaphthene	N.D.	----
Acenaphthylene	N.D.	----
Anthracene	N.D.	91.6
Benzo(a)anthracene	N.D.	----
Benzo(a)pyrene	N.D.	----
Benzo(b)fluoranthene	N.D.	----
Benzo(ghi)perylene	N.D.	----
Benzo(k)fluoranthene	N.D.	----
Chrysene	N.D.	89.2
Dibenzo(a,h)anthracene	N.D.	----
Fluoranthene	N.D.	100.3
Fluorene	N.D.	87.7
Ideno(1,2,3-cd)pyrene	N.D.	----
Naphthalene	N.D.	----
Phenanthrene	N.D.	----
Pyrene	N.D.	87.1

David Duong
Laboratory Director

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PRIORITY ENVIRONMENTAL LABS

Chain of Custody

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DATE: 7/29/99 PAGE: 1 OF: 1

PROJECT MGR.: Tridib Guha,
COMPANY: Advanced Assessment and Remediation Services (AARS)
ADDRESS: 2380 Salvio Street, Suite 202
Concord, CA 94520-2137
PHONE: (925) 363-1999 FAX: (925) 363-1998
SIGNATURE: Tridib Guha

ANALYSIS REPORT

SAMPLE ID	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030,8015)	TPH-Gasoline(5030,8015) w/BTEX(EPA 602,8020)	TPH-Diesel (EPA 3510/3550,8015)	PURGEABLE AROMATICS BTEX (EPA 602,8020)	TOTAL OIL & GREASE (EPA 5520 C,D&F)	PESTICIDES/PCB (EPA 608,8080)	TOTAL RECOVERABL HYDROCARBONS (EPA 418.1)	CHLORINATED HYDROCARBONS (EPA 601,8010)	SEE INSTRUCTIONS + COMMENTS	NUMBER OF CONTAINERS
MW-1/14S	7/28/99	10:15	Soil		X	X							1BT
MW-2/14S	"	13:45	"		X	X							1BT
MW-3/13S	"	16:30	"		X	X							1BT

PEL # 9907029

INV # 28859

TABLE 3

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NAME: ALBANY HILL MINI MART(AHMA)	TOTAL # OF CONTAINERS	3
PROJECT NUMBER: 99005	RECD. GOOD COND./COLD	

INSTRUCTIONS & COMMENTS: ANALYSE ONE SOIL SAMPLE FOR PAHs CONTAINING HIGHEST TPHd BY USING EPA 8100.

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
TRIDIB GUHA	DAVID DUONG		
SIGNATURE: Tridib Guha	SIGNATURE: David Duong	SIGNATURE:	SIGNATURE:
Date: 7/29/99 Time: 14:45	Date: 07/29/99 Time: 14:45	Date: Time:	Date: Time:
COMPANY:	COMPANY:	COMPANY:	COMPANY: