

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

ALBANY HILL MINI MART ALBANY, CALIFORNIA

Prepared for:

Mr. Mohinder S. & Dr. Joginder K. Sikand 1300 Ptarmigan Drive, #1 Walnut Creek, California

February 28, 2001

ADVANCED ASSESSMENT AND REMEDIATION SERVICES



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ADVANCED ASSESSMENT AND REMEDIATION SERVICES (AARS)

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February 28, 2001

Ms. eva chu Alameda County Health Agency Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502 MAR 0 2 2001

Subject:

Quarterly Groundwater Monitoring and Sampling Report for Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California

Dear Ms. chu:

The enclosed report presents the results and findings of the February 2001, quarterly groundwater monitoring and sampling for the above-referenced facility.

Should you have any questions regarding the report please contact Tridib Guha at (925) 363-1999.

Sincerely,

Advanced Assessment and Remediation Services

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

Principal

cc: Mr. Mohinder Sikand & Dr. Joginder Sikand, Walnut Creek, CA

AHMMQ6.RPT

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QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

For

Albany Hill Mini Mart 800 San Pablo Avenue Albany, California

1.0 INTRODUCTION

This report presents the results and findings of the February 2001, quarterly groundwater monitoring and sampling performed at 800 San Pablo Avenue, Albany, California. This report is intended to fulfill quarterly self-monitoring requirements and to establish a groundwater monitoring history for the site. A site vicinity map is shown in Figure 1.

2.0 GROUNDWATER MONITORING WELLS

This section presents the water level monitoring, field observations, sampling and analysis procedures, as well as the analytical results. The location of the monitoring wells is presented in Figure 2. The work and related field sampling activities were conducted in accordance with the guidelines and requirements of the Alameda County Environmental Health Department (ACEHD) and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

2.1 Groundwater Level Monitoring and Surveying

Groundwater levels in each well were measured to the nearest 0.01 foot from the top of the PVC casing, using an electronic sounder. A groundwater surface elevation map, based on interpretation of groundwater level measurements taken on February 8, 2001, and survey data is presented in Figure 3. The survey data and water level measurements are presented in Table 1.

2.2 Field Observations

The purged water from monitoring, MW-1, MW-2 and MW-3 were clear initially and with continual purging the water turned turbid. However, water samples collected at the time of sampling were clear. No floating product was observed in the groundwater samples from all three monitoring wells. Sheen was observed only in groundwater samples from monitoring well MW-1. Strong petroleum odor was noticed in the groundwater samples from all three monitoring wells.

2.3 Sampling and Analysis Procedures

Groundwater samples were collected on February 8, 2001, following water level measurements. Samples were analyzed by North State Environmental Laboratory of South San Francisco, California which is certified by the California Department of Health Services (DHS) to perform the specified analyses.

Before purging, water levels were measured in all wells with an electronic sounder tape. Purging preceded sampling in order to ensure collection of non-stagnant water. A minimum of three casing volumes were removed before sampling the wells MW-1, MW-2 and MW-3. The purged water was monitored for temperature, pH, and conductivity. Purging was considered complete when these parameters had stabilized. The wells were sampled after 90 percent recovery or greater. The groundwater monitoring well purge/sampling worksheets are presented Appendix A.

To prevent potential cross-contamination, all measuring, purging and sampling equipment was washed in an Alconox detergent solution, rinsed with tap water, and rinsed finally with distilled water between wells.

The sampling procedure for each monitoring well involved extracting well water with a clean PVC bailer on a clean nylon cord. Groundwater collected for analysis of Total Petroleum Hydrocarbon as gasoline (TPHg) and Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE) was decanted into two 40-milliliter volatile organic analysis vials with Teflonlined septa. Groundwater collected for analysis of Total Petroleum Hydrocarbon as diesel (TPHd) was decanted into one 1-liter amber glass bottles. Samples to be analyzed for TPHg/BTEX/MTBE were preserved using hydrochloric acid to a pH of 2.0. All samples were labeled and placed in an iced cooler, along with the chain-of-custody document (Appendix B). Samples transported to the laboratory were analyzed within the specified holding time.

Groundwater produced during purging and sampling was contained in 55-gallon steel drums. The drummed water was labelled with the source (i.e. well number) and date.

2.4 Analytical Methods

Samples were analyzed for TPHg by Modified EPA SW-846 Methods 5030/8015 modified, for TPHd by EPA Methods 3510/8015 modified, and for BTEX/MTBE by EPA SW-846 Methods 8020.

A summary of the analytical results of groundwater samples from the monitoring wells is presented in Table 2. The certified analytical reports and chromatograms for this sampling events are included in Appendix B.

3.0 INTERPRETATION OF RESULTS

The results of water level measurements and groundwater sampling are discussed in the following sections.

3.1 Groundwater Elevations and Gradients

A relative groundwater elevation contours for February 8, 2001, is presented in Figure 3. The flow direction, based on groundwater level data, was toward the southeast with an average hydraulic gradient of 0.02 foot per foot for this monitoring period. The average depth to stabilized groundwater in these wells was approximately 10.5 feet below ground surface.

3.2 Analytical Results

The analytical results for groundwater samples from three monitoring wells (MW-1 through MW-3) are presented in Table 2, which also includes the groundwater sampling results from the previous site investigation. Groundwater samples from all three monitoring wells were found to contain TPHg ranging from 290 to 2800 parts per billion (ppb);, benzene ranging from 50 to 630 ppb; toluene concentrations ranging from 11 to 130 ppb; ethylbenzene concentrations ranging from 0.6 to 51 ppb; xylenes concentrations ranging from 4 to 250 ppb; and MTBE concentrations ranging from 390 to 5200 ppb. Also, the detection of MTBE was confirmed by analyzing groundwater samples from MW-3 using GC/MS method 8260. TPHd was detected in all three groundwater samples, concentrations ranging from 80 to 380 ppb. However, laboratory reported samples from MW-1 does not match diesel pattern. Figure 4 shows the distribution of dissolved-phase petroleum hydrocarbons at the site.

4.0 SELF-MONITORING PROGRAM SCHEDULE AND RECOMMENDATIONS

The next monitoring event scheduled for the site is May, 2001. The last three groundwater sampling events confirmed the presence of elevated MTBE, TPHg and benzene concentrations in all three monitoring wells. The ACEHD required additional investigations to delineate the extent of the plume. A work plan for additional site investigations will be submitted to ACEHD.

5.0 CERTIFICATION

The information provided in this report is based on the groundwater sampling activities 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 for a similar nature.

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G. 5836

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

Tallouily, Children							
Well No.	Date of Measurement	Top of Casing Elevation (Feet - Relative)	Depth to Groundwater (Feet)	Product Thickness (Feet)	Groundwater Elevation (Feet - Relative)		
	08-06-99	101.68	11.95	0.00	89.73		
MW-1	11-05-99	101.68	12.72	0.00	88.96		
	02-07-00	101.68	10.34	0.00	91.34		
	05-05-00	101.68	10.59	0.00	91.09		
	08-03-00	101.68	11.75	0.00	89.93		
	11-08-00	101.68	11.67	0.00	90.01		
	02-08-01	101.68	11.20	0.00	90.48		
	08-06-99	101.57	10.83	0.00	90.74		
MW-2	11-05-99	101.57	11.66	0.00	89.91		
	02-07-00	101.57	9.23	0.00	92.34		
	05-05-00	101.57	9.54	0.00	92.03		
	08-03-00	101.57	10.69	0.00	90.88		
	11-08-00	101.57	10.62	0.00	90.95		
	02-08-01	101.57	10.17	0.00	91.40		
	08-06-99	100.33	10.58	0.00	89.75		
MW-3	11-05-99	100.33	11.39	0.00	88.94		
	02-07-00	100.33	9.05	0.00	91.28		
	05-05-00	100.33	9.29	0.00	91.04		
	08-03-00	100.33	10.43	0.00	89.90		
	11-08-00	100.33	10.33	0.00	90.00		
	02-08-01	100.33	9.94	0.00	90.39		

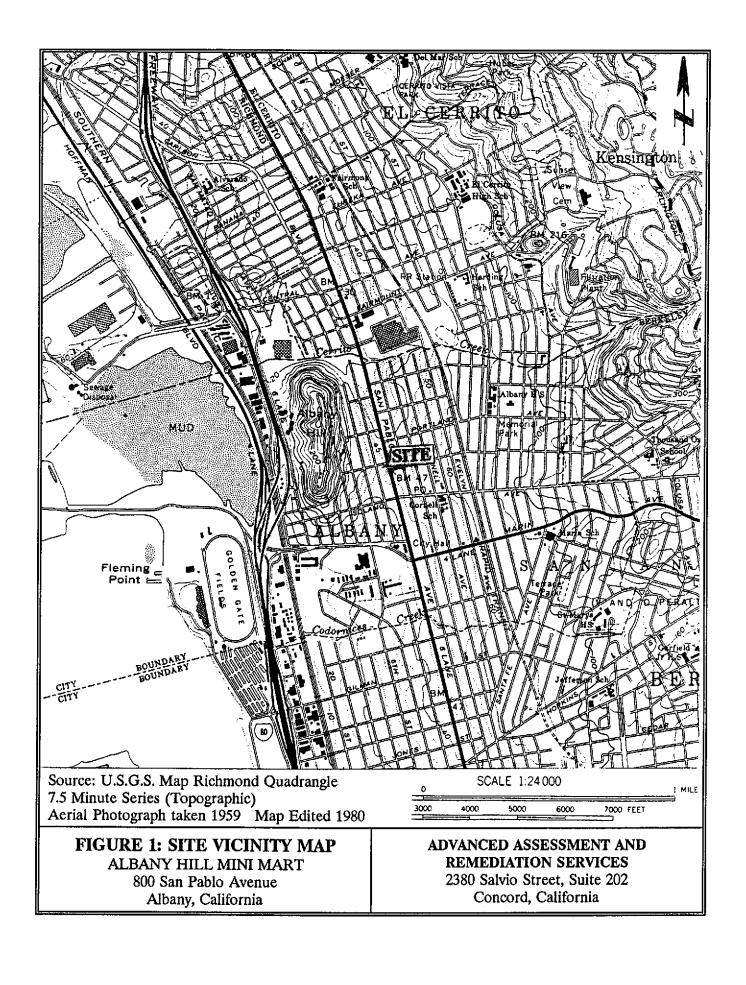
Note: A bench mark, with an assumed elevation of 100.00 feet (Above Mean Sea Level), is located at the corner of Washington Avenue and San Pablo Avenue. The bench mark is the top of the southeast bolt (painted white) in the street signal light base; all well elevations are relative to this. The elevations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

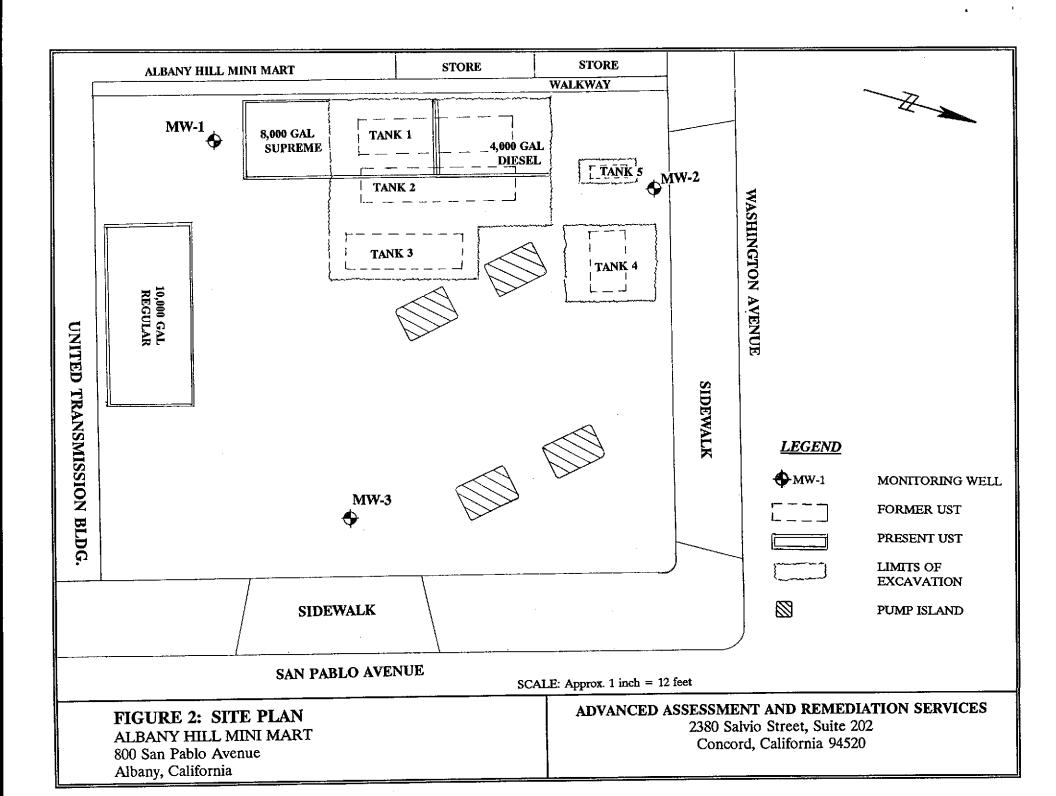
TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING for TPHg, BTEX, MTBE and TPHd

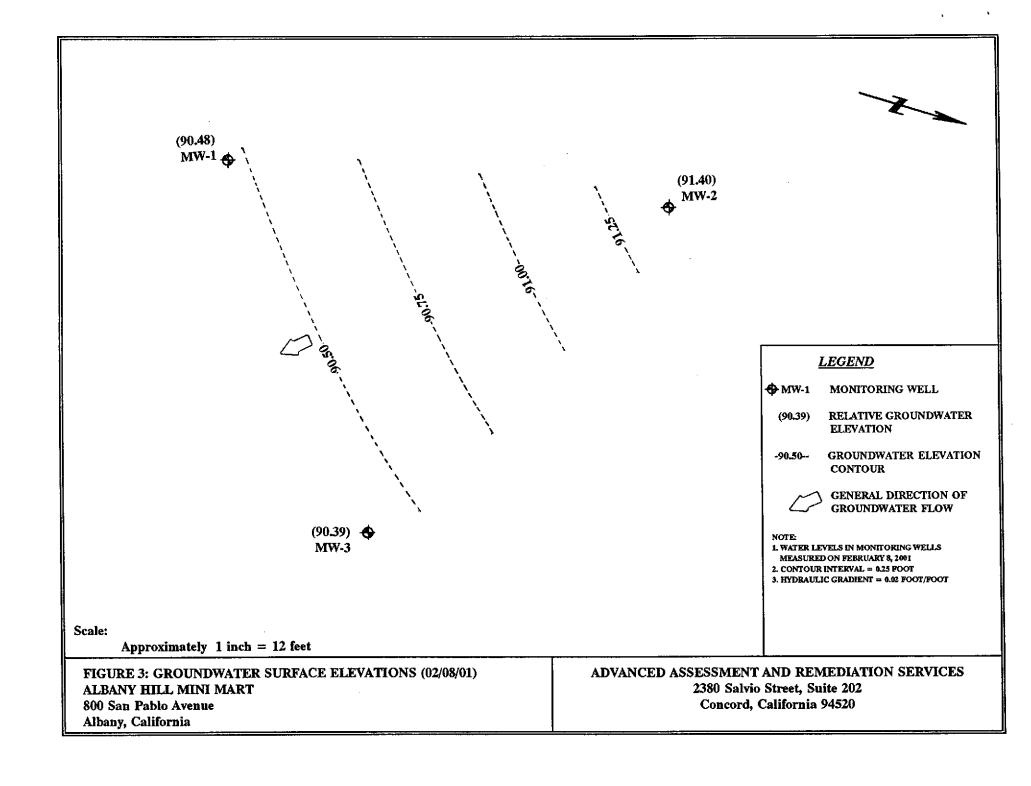
Albany Hill Mini Mart

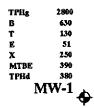
800 San Pablo Avenue, Albany, California

500 San Labio Avenue, Amany, Camornia								
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
	08/06/99	Polynuciea	Polynuclear Aromatic Hydrocarbon Analyses by EPA method 610 were non-detect with limit 1.0 $\mu g/L$					
	11/05/99	1800	ND	5.1	3.2	8.9	33	1400
	02/07/00	1100	ND	3.3	1.9	5.6	21	890
	05/07/00	970	ND	2.9	1.7	4.9	18	650
	08/03/00	1200	360	190	43	41	16 0	270*
	11/08/00	4200	840**	990	200	130	560	230*
	02/08/01	2800	390	630	130	51	250	380*
MW-2 GW	08/06/99	ND	ND	ND	ND	ND	ND	340
	11/05/99	ND	ND	ND	ND	ND	0.7	420
	02/07/00	ND	ND	ND	ND	ND	0.6	310
	05/05/00	ND	ND	ND	ND	ND	ND	280
	08/03/00	460	3300	79	3	43	8	70*
	11/08/00	200	3000	57	2	13	8	120
	02/08/01	290	3100	50	11	0.6	4	80
MW-3 GW	08/06/99	ND	ND	ND	ND	ND	ND	ND
	11/05/99	92	ND	ND	ND	0.6	1.7	54
	02/07/00	120	ND	ND	0.6	0.8	2.2	71
	05/05/00	100	ND	ND	ND	0.7	1.9	68
	08/03/00	910	11000**	220	9	35	16	300*
	11/08/00	990	8000	320	0.8	18	9	200
	02/08/01	820	5200**	180	21	7	24	110
RL	11/10-15/00	50	0.5	0.5	0.5	0.5	1.0	50
Notes: ND- µg/L- TPHg- TPHd- MTBE BTEX PAH *	Tot Tot - Me Ber Pol Doo	crogram per I al petroleum al petroleum thyl Tertiary izene, toluene ynuclear Aroi es not match	hydrocarbon Butyl Ether (r billion) as gasoline (as diesel (EF EPA method ae, and total : arbon (EPA :	EPA method A method me 8020) xylenes (EPA	Analyzed modified 8015) odified 8015) method 8015)		









TPHg	290
В	50
T	11
E	0.6
X	4
MTB <u>e</u>	3100
TPHd	80
◆ ^{MW-2}	



LEGEND



◆ MW-1 MONITORING WELL

T

E

X

TPHd

TOTAL PETROLEUM HYDROCARBON AS

GASOLINE

MTBE

METHYL TERTIARY BUTYL ETHER

BENZENE TOLUENE

ETHYLBENZENE

XYLENES

TOTAL PETROLEUM HYDROCARBONAS

DIESEL

NOTE:

1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (PARTS PER BILLION)

2. HYDROCARBONCONSTITUENTS 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

TPHg

MTBE

MW-3 ᡐ

T

Ε

820

180

21

24

5200

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

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NUMBER: 99005 PROJECT NAME: Albany Hill Mini Mart 800 San Pablo Avenue, Albany, CA SITE ADDRESS: WELL NUMBER: MW-¹ WELL CASING DIA.: A" DATE: 2-8-01 Stagnant Volume Calculation Total Well Depth (ft) - Initial Depth to Water = Water Column Height (ft) -Time: 9:34 11.20 24 Water column Height (ft) x Gallons/Linear Foot = Stagnant Volume (Gallons) 2.17 0.17 12.80 (Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5) Groundwater Inspection

Time	Volume Purged (gal)	Temperature (degrees F)	pН	Conductivity	Color/Turbidity/Other		er
11:10	0	60.4	6.70	2380	CLEAR		
11:20	2	60.7	6.87	2397	SLIGHTLY	TURBID	Brow
11:30	5	60.5	7.01	2420	4	и	4
11:40	7	60.6	7.03	2436	s/	øŧ	ч

Purged Water Containment

Floating Product (ft. or in.): NONE

Purge Method Used:

Sheen/Iridescence: Y Odor: Y 5

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: 12.15 (I) Initially: 11.20 (S) Before sampling: 11.29 Time: 13	3.28	
$(P-S)/P-I) \times 100 = 100 \%$ Total Recovery: 90%.	SAMPLE TIME	13:30
Sample Containers (How many? Preservatives?)		
1 liter amber glass: 1 ; 40 ml VOA: 3 ; 500 ml polypropylene: X	_	
REMARKS:		

SAMPLER: TRIDIE GUHA

SIGNATURE: Trial L.

(Print)

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME:	Albany Hill Mini Mart	PROJECT NUMBER: 9	99005
SITE ADDRESS:	800 San Pablo Avenue,	Albany, CA	
WELL NUMBER: N	MW-2 WELL CASING	G DIA: α'' DATE:	2-8-01
24	- Initial Depth to Water 10.19 (ft) x Gallons/Linear Foot	= Water Column Height (ft) / 3.8 / = Stagnant Volume (Gallons)	Time: 9:32
13.81	0.17	2.35	
(Gallons/Linear Foot: 2*	dia. = 0.17; 4" dia. = 0.66; 6" dia.	. = 1.5)	
Groundwater Inspecti Floating Product (ft. o	<u>ion</u> or in.): NoN€	Sheen/Iridescence: None	Odor:

Time	Volume Purged (gal)	Temperature (degrees F)	pН	Conductivity µS	Color/Turbidity/Other
9;40	0	56.8	6.89	1258	CLEAR
9,'50	2	56.6	7.01	1266	SLIGHTLY TURBID BROWNER
10:00	5	56.6	7.00	1273	4 4
10:10	7	56.7	6.98	1269	n n "

	al (drums); Any previous drums? / Capaci	ty <u>55</u>
Groundwater Sampling	Water Level Recovery (Depth to groundwar	ter in feet)
(P) After purging: //./7 (I) Initially: 10.19 (S) Before sampling: 10	. 24 Time: 12!58
$(P-S)/P-I) \times 100 = 100 \% \text{ Total}$	al Recovery: 95 /.	SAMPLE TIME 13:0
Sample Containers (How man	y? Preservatives?)	
1 liter amber glass:	; 40 ml VOA: 3 ; 500 ml polypropyle	ene: <i>x</i>

Purge Method Used:

REMARKS:

SAMPLER: TRIDIB GUHA

SIGNATURE: J. L. L.

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

(Print)

Purged Water Containment

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart

SITE ADDRESS: 800 San Pablo Avenue, Albany, CA

WELL NUMBER: MW-3 WELL CASING DIA: 2''

PROJECT NUMBER: 99005

DATE: 2-8-01

Stagnant Volume (Total Well Depth	<u>Calculation</u> (ft) - Initial	Depth to Wa	ter = Wate	er Column Heigi 14.06	ht (ft) -	Time:	9:30	
Water column Hei	ight (ft) x Gal	lons/Linear Fo	oot = Stagn	nant Volume (G 2 . 39	allons)			
(Gallons/Linear Foot	:: 2° dia. = 0.17;	4" dia. = 0.66; 6"	dia. = 1.5)					
Groundwater Insp Floating Product (ection (ft. or in.): M	ONE	Sheen/Iri	idescence: NON	€ Odor:	ys.		
Time	Volume Purged (gal)	Temperature (degrees F)	pН	Conductivity µS	Color/Tu	rbidity/Oth	er	
10;25	0	61.2	6.79	1732	CLEAR			
10:35	2	61.3	6.88	1829	SLIGHTLY	TURBID	GRAY	
10:45	5	61.4	6.96	1864	и	h	u	
10:55	7	61.4	6.97	1847	1	и	- '1	
Purged Water Co	ntainment			Purge Method U	<u>Jsed</u> :			
7 gals stored i	n <u>í</u> 55 ga	l (drums); An	y previous di	rums? <u> </u>	acity <u>55</u>			
Groundwater San	opling	Water Level	Recovery (I	Depth to ground	water in feet)			
(P) After purging	: 10.98 (I)	Initially: 9,	<u>94</u> (S) Bel	fore sampling: <u>/</u>	0.01 Time:	13:13	<u>3</u>	
(P-S)/P-I) x 100 = 100 % Total Recovery: 93 1.								
Sample Containers (How many? Preservatives?)								
1 liter amber glas	s:;	40 ml VOA:_	;	500 ml polypro	pylene: X			
REMARKS:								

(Print)

SAMPLER: TRIDIB GUHA

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

SIGNATURE: Tridick 1



North State Environmental Laboratory

CA ELAP # 1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CERTIFICATE OF ANALYSIS

Lab Number:

01-0185

Client:

Advanced Assessment & Remd.

Project:

ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 02/16/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0185-01	Client ID:	MW-1 GW		02/08/2001	WATER
Gasoline	8015M	2800	ug/L		02/13/2001
Benzene	8020	630	ug/L		
Ethylbenzene	8020	130	ug/L		
MTBE	8020	390	ug/L	WTBE	
Toluene	8020	51	ug/L		
Xylenes	8020	250	ug/L		
Diesel	8015M	*0.38	mg/L		02/14/2001
Sample: 01-0185-02	Client ID:	MW-2 GW		02/08/2001	WATER
Gasoline	8015M	290	ug/L		02/13/2001
Benzene	8020	50	ug/L		
Ethylbenzene	8020	11	\mathtt{ug}/\mathtt{L}	r	
MTBE	8020	3100	ug/L	WtBo	
Toluene	8020	0.6	ug/L		
Xylenes	8020	4	ug/L		
Diesel	8015M	0.08	mg/L		02/14/2001
Sample: 01-0185-03	Client ID:	MW-3 GW		02/08/2001	WATER
Gasoline	8015M	820	ug/L		02/13/2001
Benzene	8020	180	\mathtt{ug}/\mathtt{L}		
Ethylbenzene	8020	21	ug/L		
MTBE	8020	**5200	ug/L	M+ 36	
Toluene	8020	7	${ m ug/L}$		

^{*}Does not match diesel pattern**Confirmed by GC/MS

CERTIFICATE OF ANALYSIS

Lab Number:

01-0185

Client:

Advanced Assessment & Remd.

Project:

ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 02/16/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	<u> </u>	Date Sampled	Date Analyzed
Sample: 01-0185-03	Client ID:	MW-3 GW		02/08/2001	WATER
Xylenes	8020	24	ug/L		
Diesel	8015M	0.11	mg/L		02/14/2001

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number:

01-0185

Client:

Advanced Assessment & Remd.

Project:

ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 02/16/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Diesel Range Hydrocarbons by Method 8015M

		Reporting		Avg MS/MSD					
Analyte	Method	Limit	Unit	Blank	Recovery	RPD			
Gasoline	8015M	50	ug/L	ND	129	1			
Benzene	8020	0.5	\mathtt{ug}/\mathtt{L}	ND	95	5			
Toluene	8020	0.5	\mathtt{ug}/\mathtt{L}	ND	111	5			
Ethylbenzene	8020	0.5	\mathtt{ug}/\mathtt{L}	ND	110	6			
- Xylenes	8020	1.0	ug/L	ND	109	10			
MTBE	8020	0.5	ug/L	ND	88	4			
Diesel	8015M	0.05	mg/L	ND	68/70	4			

ELAP Certificate NO:1753

Revilewed and Approved

John A.Murphy, Laboratory Director

Page 3 of 3



North State Environmental Analytical Laboratory 90 South Spruce Avenue, Suite W, South San Francisco, CA 94080 Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody /	Request for Analysis
Lab Job No.:	Page <u>/</u> of <u>/</u> _

		Remp. Sue	Report to: TRIDIB GUHA				Phone: 925-363 - 1999			799	Turnaround Time		
Mailing Address:	-			Billing to: SAME			Fax 925-363-1998			58	5 DAY		
2380 SALVIO ST., STE 202		ŀ	DAME				PO# / Billing Reference:				Date: 2-8-01		
CONCORD, CA 94520										Sampler: T. GUHA			
Project / Site Address:	ALBAN 800 S ALBAN	Y HILL N AN PABL YY, CA	O AVE	IART	Analys Requested	is And I	the state of the s	7	7				
Sample ID	Sample Type	Container No. / Type	Pres.	Sa	mpling e / Time	Kelle	1/1/1	_			_	_	/Comments / Hazards
MW-I GW	WATER	3 VOAS	HeL	2/8/01	13:30	\geq	\geq						
MW-2 GW		3 VOAS			13:00	$> \leq$	\geq						
MW-3 GW	V	3 VOAS 1 L. AMB	J	J	13:15	\bowtie	\geq						
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Relinquished by:	Tidel	11.1		Date: 2 -	8- 0/ Time:	18:45	-Recei	ved by:	XXX	Lin	<u>uf</u>		Lab Comments Langue received in good Condition
Relinquished by:			1	Date:	Time:		Recei	ved by:			<u> </u>		in good Condition
Relinquished by:			[Date:	Time:		Recei	ved by:					7, 20.22

Quantitation Report

Data File : C:\HPCHEM\2\DATA\02131N07.D\FID1A.CH

Vial: 7

Acq On : 13 Feb 20101 Operator: ec

: 01-0185-01 Sample : water 5ml Misc

Inst : GC/MS Ins Multiplr: 1.00

: TRY1.E IntFile

Data File : C:\HPCHEM\2\DATA\02131N07.D\FID2B.CH 4:59 pm

Vial: 7 Operator: ec

Acq On : 13 Feb 101 Sample : 01-0185-01

Inst : GC/MS Ins

Misc : water 5ml Multiplr: 1.00

: AUTOINT1.E IntFile

Quant Time: Feb 13 17:22 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)

4:59 pm

: Gasoline Aromatics (BTEX-MTBE) Title

Last Update : Tue Jan 02 13:19:58 2001 Response via : Multiple Level Calibration

DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume

Signal #1 Phase : DB-624 $3\overline{0}$ M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm

Signal #2 Info : OI PID Signal #1 Info : OI FID 02131N07.DVFID1A Response_ 400000 350000 300000 250000 200000-150000 100000 50000 0 14.00 16.00 18.00 20.00 22.00 10.00 12.00 2.00 4.00 6.00 8.00 0.00 Time 02131N07.D\FID2B Response 1600000 1400000 1200000 1000000 800000 600000 400000 200000 0 BE #2 18.00 20.00 22.00 14.00 16.00 6.00 8.00 10.00 12.00

Time

0.00

2.00

4.00

Quantitation Report Landon On Report

Data File : C:\HPCHEM\2\DATA\02131N08.D\FID1A.CH 5:30 pm

Vial: 8

: 13 Feb 20101 Acq On : 01-0185-02 Sample

Operator: ec

: water 5ml Misc

: GC/MS Ins Inst Multiplr: 1.00

: TRY1.E IntFile

Data File : C:\HPCHEM\2\DATA\02131N08.D\FID2B.CH 5:30 pm

Vial: 8

Acq On : 13 Feb 101 : 01-0185-02 Sample

Operator: ec Inst : GC/MS Ins

: water 5ml Misc

Multiplr: 1.00

: AUTOINT1.E IntFile

Quant Time: Feb 13 17:53 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)

: Gasoline Aromatics (BTEX-MTBE) Title

Last Update : Tue Jan 02 13:19:58 2001 Response via : Multiple Level Calibration

DataAcq Meth : GBX.M

: 5 mL Purge volume Volume Inj.

Signal #1 Phase: DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm Signal #1 Info : OI FID Signal #2 Info : OI PID Sponse_ 02131N08.DVFID1A Response_ 300000 250000 200000 150000 100000 50000 a 20.00 22.00 12.00 14.00 16.00 18.00 8.00 10.00 0.00 2.00 4.00 6.00 Time 02131N08.D\FID2B Response 1000000 800000 600000 400000 200000 13.31 0 22.00 20.00 16.00 18.00 12.00

8.00

10.00

6.00

Time

0.00

2.00

Quantitation Report 42 76 4 00 8 444 00

Data File : C:\HPCHEM\2\DATA\02131N09.D\FID1A.CH

Vial: 9

Acq On : 13 Feb 20101 : 01-0185-03 Sample

Operator: ec 6:01 pm

: water 5ml Misc

Inst : GC/MS Ins Multiplr: 1.00

: TRY1.E IntFile

Data File : C:\HPCHEM\2\DATA\02131N09.D\FID2B.CH 6:01 pm

Vial: 9

: 13 Feb 101 Acq On : 01-0185-03 Sample

Operator: ec : GC/MS Ins Inst

: water 5ml Misc

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Feb 13 18:25 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)

Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Tue Jan 02 13:19:58 2001 Response via : Multiple Level Calibration

DataAcq Meth : GBX.M

: 5 mL Purge volume Volume Inj.

Signal #1 Phase : DB-624 30M \times 0.53 Signal #2 Phase: DB-624 30M \times 0.53mm

Signal #2 Info : OI PID Signal #1 Info : OI FID 02131N09.D\FID1A Response_ 400000 350000 300000 250000 200000 150000 100000 50000 0 18.00 20.00 22.00 14.00 16.00 4.00 6.00 8.00 10.00 12.00 2.00 Time 0.00 02131N09.D\FID2B 1988888 1200000 1000000 800000 600000 400000 200000 E 12.21 13.31 THYLBENGE 12. 0 -Xylenes 핥 ATBE 1 18.00 20.00 22.00 12.00 14.00 16.00 4.00 6.00 8.00 10.00 2.00 Time

Quantitation Report

Data File : E:\HPCHEM\1\DATA\02141X09.D

: 2-14-01 8:21:32 PM

Operator: my Inst : GC/MS Ins

Vial: 9

Acq On : 01-0185-01 Sample Multiplr: 0.01

Misc : water IntFile : EVENTS.E

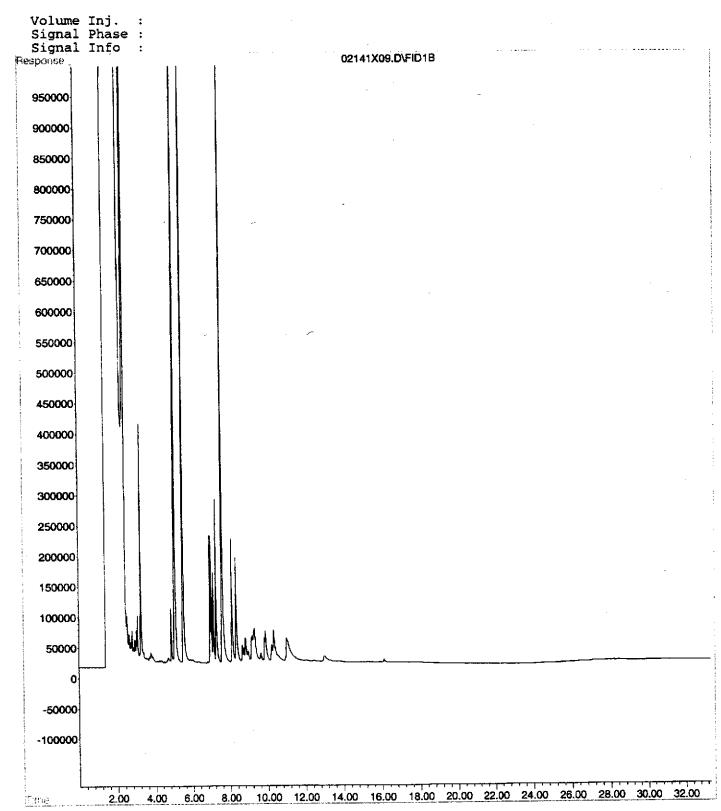
Quant Time: Feb 14 20:54 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)

Title

Last Update : Mon Feb 05 16:00:16 2001 Response via : Multiple Level Calibration

DataAcq Meth : TPH.M



Quantitation Reports - population campute t

Data File : E:\HPCHEM\1\DATA\02141X10.D

Vial: 10

: 2-14-01 9:07:58 PM Acq On

Operator: my

: 01-0185-02 Sample

Inst : GC/MS Ins

Misc : water Multiplr: 0.01

IntFile : EVENTS.E

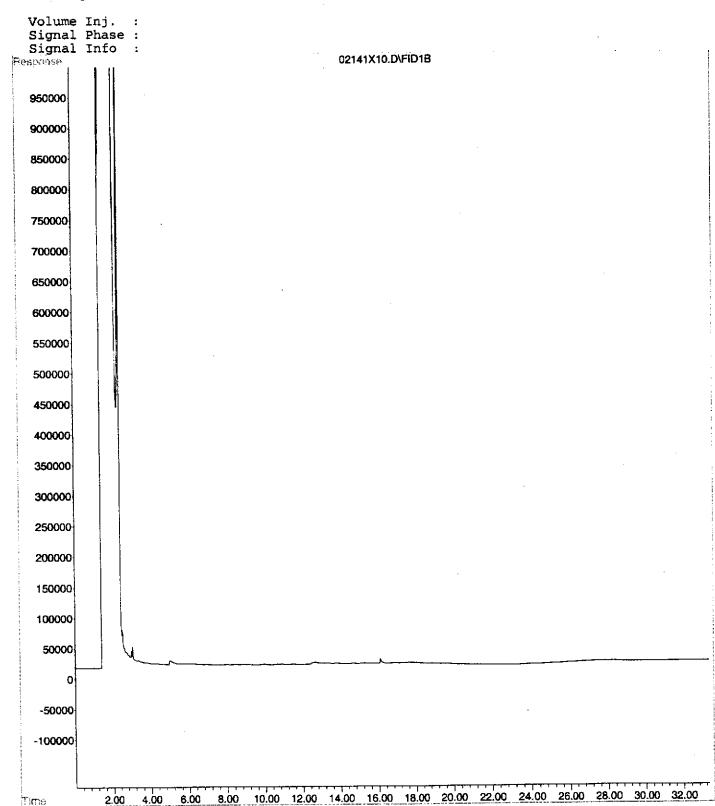
Quant Time: Feb 14 21:41 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)

Title

Last Update : Mon Feb 05 16:00:16 2001 Response via : Multiple Level Calibration

DataAcq Meth : TPH.M



Quantitation Report

Data File : E:\HPCHEM\1\DATA\02141X11.D

: 2-14-01 9:54:24 PM

Vial: 11 Operator: my

Inst : GC/MS Ins

: 01-0185-03 Sample Multiplr: 0.01 Misc : water

IntFile : EVENTS.E

Quant Time: Feb 14 22:27 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)

Title

Acq On

Last Update : Mon Feb 05 16:00:16 2001 Response via : Multiple Level Calibration

DataAcq Meth : TPH.M

