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John S. Hahn
(202) 408-6430

August 11, 1995

VIA FEDERAL EXPRESS

Ms. Juliet Shin
Hazardous Materials Specialist
Alameda County Department of
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: STID 3856; 1055 Eastshore Highway, Albany, CA

Dear Ms. Shin:

On behalf of Amfac Distribution Corporation, I am submitting Allwest's Groundwater Monitoring Well Installation and Sampling Report.

Sincerely yours,

John S. Hahn/nz

John S. Hahn

cc: John Frank (w/enclosure)
Marc Cunningham (w/o enclosure)
John T. Lynch (w/enclosure)
Randall T. Smith (w/enclosure)

8035135

AllWest

AllWest Environmental, Inc.

Specialists in Environmental Due Diligence and Remedial Services

One Sutter Street, Suite 600
San Francisco, Ca 94104
Tel 415 391.2510
Fax 415.391 2008

GROUNDWATER MONITORING WELL INSTALLATION AND SAMPLING REPORT

August 1995

1055 Eastshore Highway

Albany, California

ALLWEST PROJECT 95117.28
August 9, 1995

PREPARED BY:

Keith Craig
Project Manager

REVIEWED BY:

Long Ching, PE
Senior Engineer

REGISTERED LONG CHING C 33487 EXP. 12/31/97 CIVIL STATE OF CALIFORNIA

TABLE OF CONTENTS

AllWest

GROUNDWATER MONITORING WELL INSTALLATION AND SAMPLING REPORT

August 1995

1055 Eastshore Highway

Albany, California

I. INTRODUCTION

This report presents the results of the groundwater monitoring well installation and sampling program performed by *AllWest Environmental* at 1055 Eastshore Highway, *Albany, California*. The program was initiated in response to a *Alameda County Department of Environmental Health (ACDEH)* request for quarterly sampling. The *ACDEH* also requested that an additional monitoring well be installed south to southwest (down-gradient) of the UST excavation. One soil sample from the newly installed monitoring well was required to be analyzed at an appropriate laboratory. The objective of the well installation and sampling was to investigate the groundwater downgradient from the former underground storage tank (UST).

The scope of *AllWest's* services included the installation and development of one groundwater monitoring well (MW-4), the sampling of all four wells (MW-1 through MW-4), the measuring of groundwater levels in all four wells, and the submittal of a soil sample from the newly installed well to a state certified laboratory, *Advanced Materials Engineering Research, Inc. (AMER)*. The samples were submitted for analysis of total petroleum hydrocarbons as gasoline (TPH-G), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). After receipt of the analytical results, a written report was prepared to present the results.

II. SITE HISTORY

The subject property lies in the western-most area of *Albany, Alameda County, California* in an industrial area (See Figures 1 and 2). The subject property is located on the east side of Eastshore Highway, approximately 200-feet south of the *Albany* off-ramp from Highway I-80. *San Francisco Bay* is located approximately 2,000-feet west of the subject property.

The subject property consists of a large metal office/warehouse building, a vehicle parking lot and washing station. One underground storage tank (UST) containing gasoline was removed by *Resna Industries* on September 2, 1992. The former UST was located south of the building in the vehicle parking area (See figure 3).

Soil near the UST excavation was removed in September 1992. A preliminary site assessment (PSA) was conducted by *AllWest* in July 1994. The PSA consisted of the advancement of seven boreholes, the installation of three groundwater monitoring wells, and the submittal of soil and groundwater samples to an analytical laboratory for analyses. The PSA indicated that gasoline constituents were present in soil and groundwater at the site.

III. GROUNDWATER MONITORING WELL INSTALLATION ACTIVITIES

On March 24, 1995, a permit was issued by the *Alameda County Flood Control and Water Conservation District (ACFCWCD)* for the installation of one groundwater monitoring well (MW-4). The *ACFCWCD* permit number was 95160 (See Appendix A).

One soil borehole was advanced to approximately 25-feet below the ground surface on June 17, 1995 by *Bay Area Exploration* of *Cordelia, California* (See Appendix B). Soil samples were collected at five-foot intervals during drilling. One soil sample, from five feet below the ground surface, was submitted to a *California* Certified Analytical Laboratory, *Advanced Material Engineering Research, Inc. (AMER)*. A groundwater monitoring well was installed according to the *ACDEH* guidelines (*ACDEH*, July 1995). The soil borehole and monitoring well construction logs are presented in Appendix B.

On June 20, 1995, the monitoring well was developed by *AllWest* personnel using a surge block and a submersible pump. *AllWest* developed the well by surging the well for approximately ten minutes then pumping the well. Several times the well was pumped dry and allowed to recharge prior to surging.

Groundwater parameters including conductivity, temperature, and pH were collected at five gallon intervals and recorded (See Appendix B). Approximately twelve casing volumes were removed from the well during the development. Development of the well was completed after the groundwater parameters stabilized and the groundwater clarity improved.

IV. GROUNDWATER SAMPLING ACTIVITIES

Activities for the June 1995 monitoring event included sampling and measuring the groundwater elevation of all four monitoring wells (MW-1 through MW-4). The work was conducted by *AllWest* personnel on June 27, 1995.

AllWest's groundwater sampling protocols, presented in Appendix C of this report, were followed. At least three well casing volumes were purged prior to sampling. After purging, three 40-milliliter samples were collected from each of the four monitoring wells. No product sheen was noted. Copies of the groundwater sampling field logs are presented in Appendix D.

The June 27, 1995, groundwater levels as well as the accumulative groundwater level measurements are presented in Table 1 below. Groundwater flow direction during this monitoring event was calculated to be towards the south with an average gradient of 0.003-ft/ft. This flow direction is consistent with that previously found at the site.

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION MEASUREMENTS

Well Number and Sampling Date	Well Casing Elevation	Depth to Water (In feet)	Groundwater Elevation (Assumed Datum equals 12')	Change Since Last Measurement (In feet)	Average Hydraulic Gradient
MW-1					
6/28/94	6.62 feet	6.06	0.56		0.009 ft/ft SSE
6/29/94		6.04	0.58	+0.02	0.004 ft/ft WNW
7/20/94		6.08	0.54	-0.04	0.003 ft/ft S
6/9/95		4.85	1.77	+1.53	0.002 ft/ft SW
6/27/95		4.79	1.90	+0.13	0.003 ft/ft S
MW-2					
6/28/94	6.92 feet	6.26	0.66		0.009 ft/ft SSE
6/29/94		6.34	0.58	-0.08	0.004 ft/ft WNW
7/20/94		6.33	0.59	+0.01	0.003 ft/ft S
6/9/95		5.13	1.79	+1.20	0.002 ft/ft SW
6/27/95		4.99	1.93	+0.14	0.003 ft/ft S
MW-3					
6/28/94	7.02 feet	6.30	0.72		0.009 ft/ft SSE
6/29/94		6.29	0.73	+0.01	0.004 ft/ft WNW
7/20/94		6.36	0.66	-0.07	0.003 ft/ft S
6/9/95		5.16	1.86	+1.20	0.002 ft/ft SW
6/27/95		5.03	1.99	+0.13	0.003 ft/ft S
MW-4*					
6/27/95	6.46 feet	4.60	1.86	NA	0.003 ft/ft S

Notes: *Well Installed in June 1995.

V. LABORATORY TEST RESULTS

One soil and four water samples were collected and submitted to a State of California certified laboratory, *Advanced Materials Engineering Research, Inc. (AMER)*, of *Sunnyvale, California*.

All soil and groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX).

Gasoline and BTEX were "not detected" in the soil sample collected from the newly installed well at a depth of five-feet.

The groundwater analytical results indicated concentrations of TPH-G at 3,800 parts per billion (ppb) in well MW-2. Results from MW-1, MW-3, and MW-4 indicated that the TPH-G concentrations were less than the laboratory detection limit of 50-ppb. BTEX concentrations for MW-2 were reported as 260-ppb Benzene, 9.8-ppb Toluene, 190-ppb Ethylbenzene, and 310-ppb Xylene. Concentrations of BTEX in MW-1 were reported as 0.8-ppb, not detected (ND), 1.3-ppb, and 3.2-ppb, respectively. No detectable concentrations of BTEX were reported for MW-3 and MW-4.

The concentration levels of TPH-G and BTEX in all of the wells are similar to the 1994 results.

A summary of analytical results for wells MW-1 through MW-4 to date are presented in Table 2 on the next page. A copy of the laboratory test reports and Chain-of-Custody documents are displayed in Appendix E.

TABLE 2
SUMMARY OF GROUNDWATER CHEMICAL ANALYSIS RESULTS

Monitoring Well No. and Sampling Date	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1					
6/23/94	ND <50	ND <0.3	0.60	2.5	9.0
6/29/95	ND <50	0.8	ND <0.5	1.3	3.2
MW-2					
6/23/94	330	130	11.0	20.0	10.0
6/29/95	3,800	260	9.8	190	310
MW-3					
6/23/94	52.0	ND <0.3	ND <0.3	4.0	13.0
6/29/95	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5
MW-4*					
6/29/95	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5

Notes: ND = Not-detected at or above the laboratory limit of detection as indicated.
All Concentrations were reported as μg/kg and are equivalent to parts per billion.
* = MW-4 installed in June 1994.

VI. CONCLUSIONS

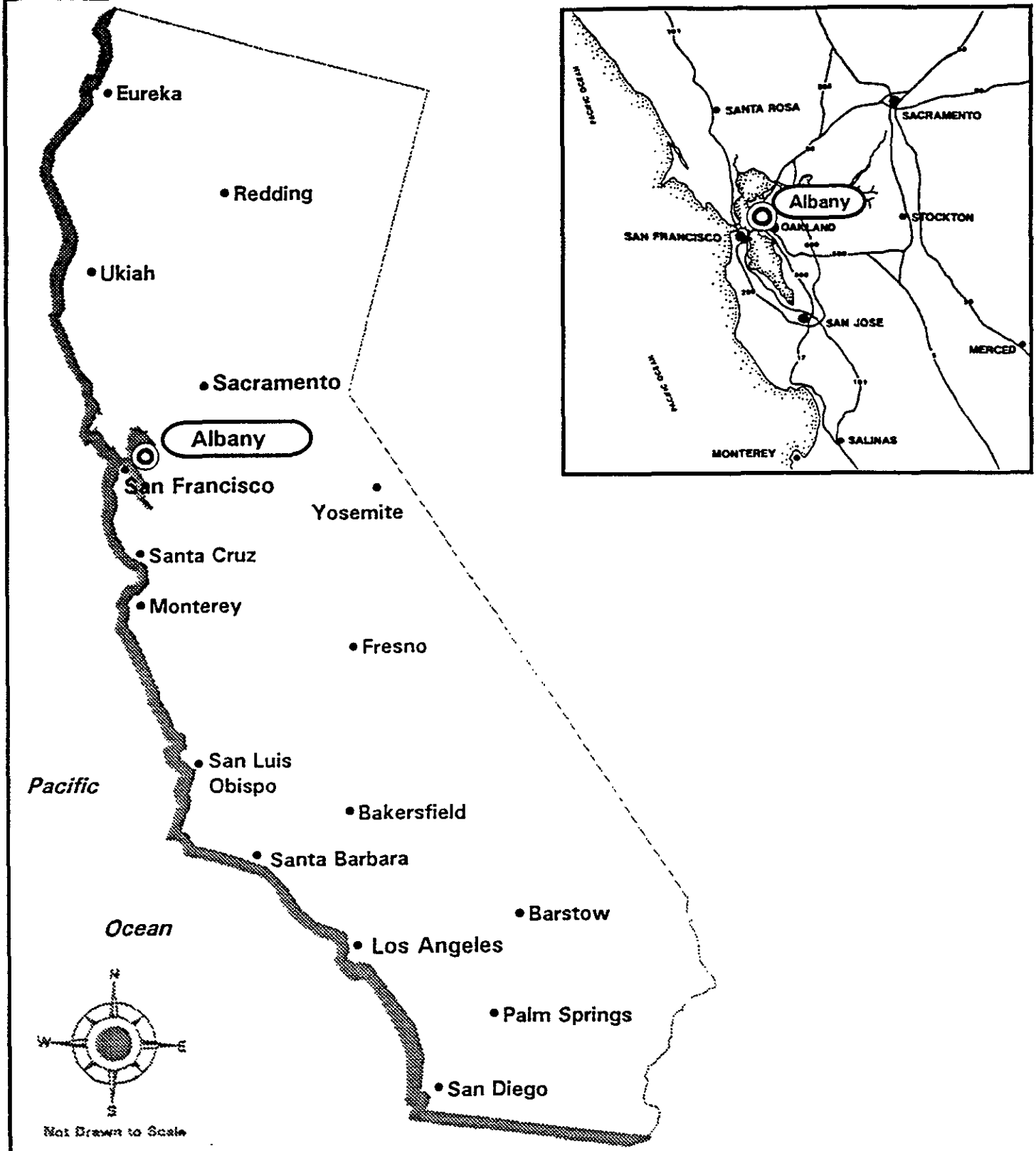
As indicated by the laboratory test results, TPH-G and BTEX were detected in groundwater samples from monitoring wells MW-1 and MW-2. The concentrations of TPH-G and BTEX in the wells are similar to the 1994 sampling results. The non-detectable results from MW-4 indicate that the extent of contaminated groundwater is very limited and within 40-feet of the former UST in a southerly/hydraulically downgradient direction. The next sampling event is scheduled for September 1995.

VI. REPORT LIMITATIONS

The work described in this report has been performed accordance with generally accepted engineering principles an practices. The conclusions and recommendations contained herein are presented based on environmental conditions of the site and laboratory test results of the groundwater sample. It must be recognized that changes can occur in groundwater conditions due to seasonal variations, or other reasons. Furthermore, the distribution of chemical concentrations in the groundwater can vary both temporally and spatially. The chemical analyses results are valid as of the date and at the sampling location only. *AllWest* cannot be held accountable for the accuracy of the test data from an independent laboratory, nor for any analyte quantities falling below the recognized standard detection limits for the method utilized by the independent laboratory.

KBC109: 95117-28.qmr

FIGURES

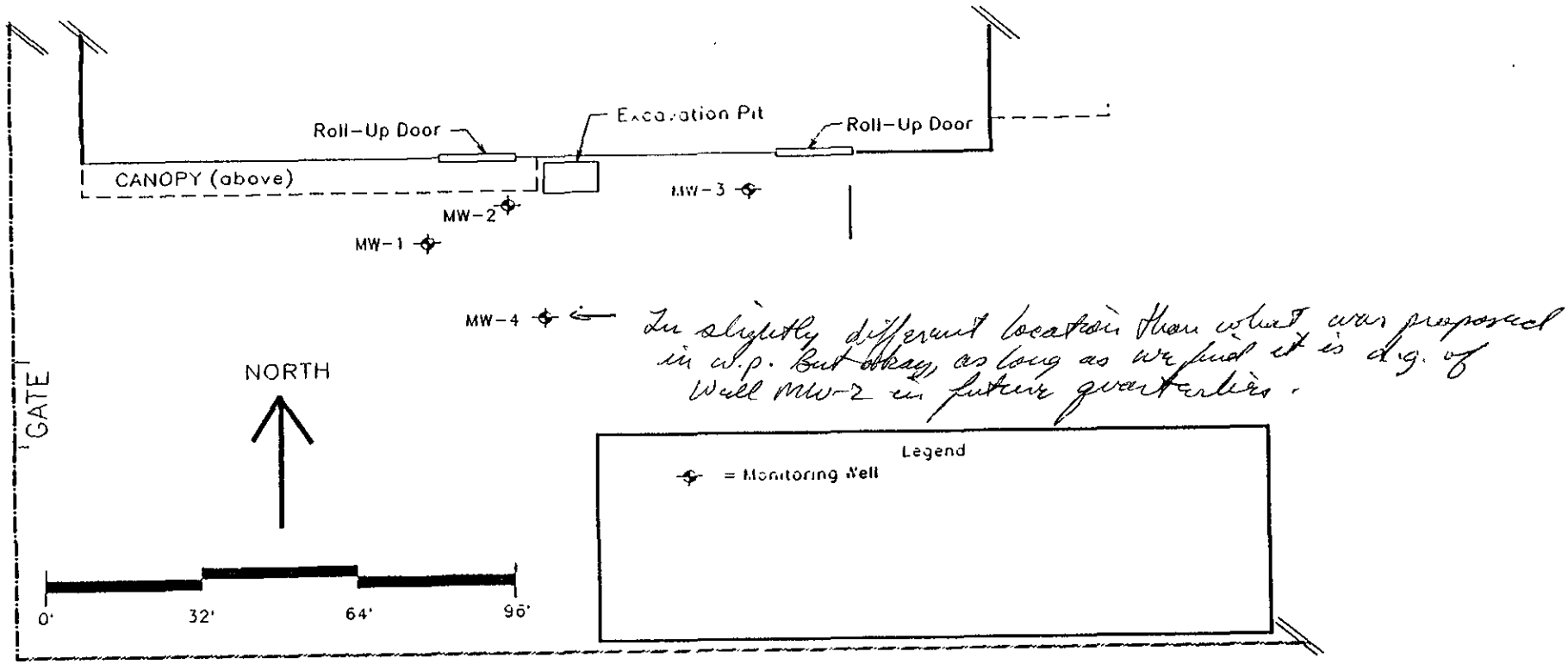


AllWest Environmental, Inc.	August 1995	Site Regional Map	Project 95115.28	Figure 1
	1055 East Shore Highway, Albany, California			Source *AllWest*

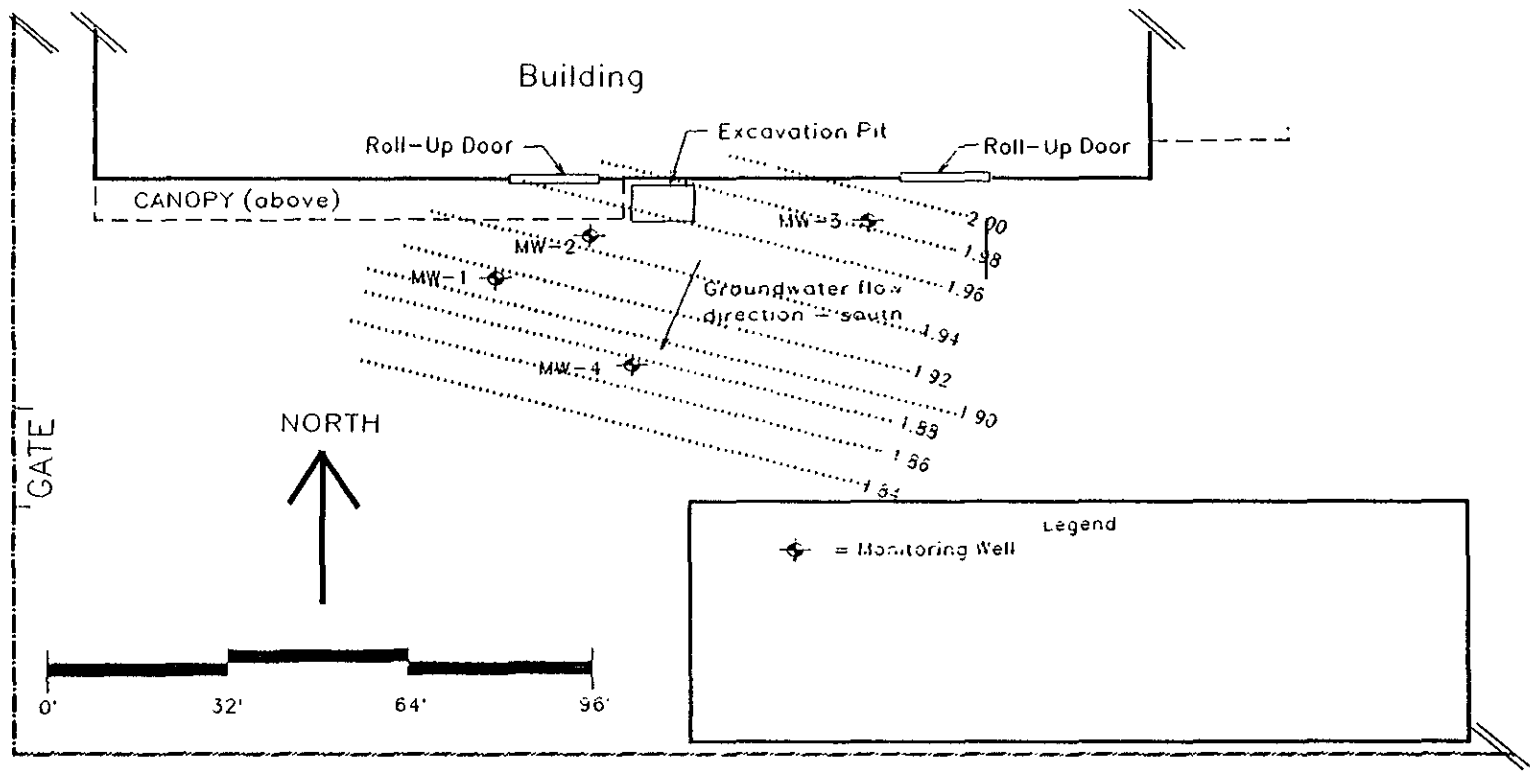
AllWest

AllWest Environmental, Inc.

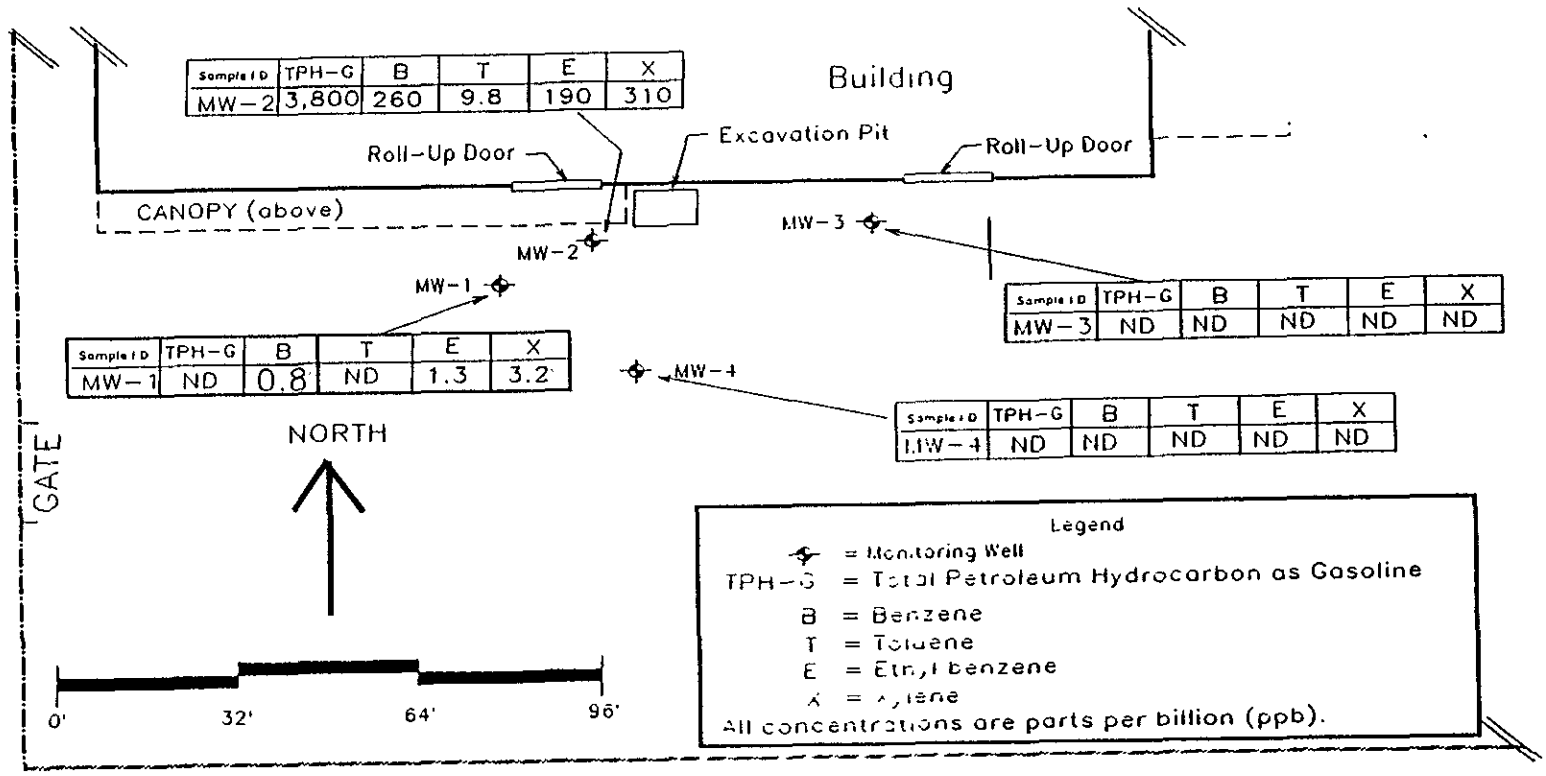
July 1995	Site Vicinity Map	Project 95117.28	Figure 2
1055 East Shore Highway, Albany, California			Source *CA DOT*



AllWest Environmental, Inc	August 1995	Generalized Site Plan	Project No. 95117.28	Figure 3
	1055 East Shore Highway, Albany, California			Source *AllWest*



AllWest Environmental, Inc	August 1995	Groundwater Gradient Map	Project No. 95117.28	Figure 4
	1055 East Shore Highway, Albany, California			Source *AllWest*



Sample I.D	TPH-G	B	T	E	X
MW-2	3,800	260	9.8	190	310

Sample I.D	TPH-G	B	T	E	X
MW-1	ND	0.8	ND	1.3	3.2

Sample I.D	TPH-G	B	T	E	X
MW-3	ND	ND	ND	ND	ND

Sample I.D	TPH-G	B	T	E	X
MW-4	ND	ND	ND	ND	ND

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August 1995

Analytical Results

Project No. 95117.28

Figure 5

1055 East Shore Highway,
Albany, California

Source
AllWest

APPENDIX A

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588-5127 • PHONE (510) 484-2600 FAX (510) 462-3914

24 March 1995

AllWest Environmental
1 Sutter Street, #600
San Francisco, CA 94104

Gentlemen:

Enclosed is drilling permit 95160 for a monitoring well construction project at 1055 Eastshore Highway in Albany for JMB Properties.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch and permit number.

If you have any questions, please contact Wyman Hong at extension 235 or me at extension 233.

Very truly yours,

Craig A. Mayfield

Craig A. Mayfield
Water Resources Engineer III

WH:mm
Enc.

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1055 Eastshore Highway, Albany, CA

CLIENT
Name AMFAC Distributing (JMB Properties)
Address 900 N. Michigan Ave. Phone (312)915-2510
City Chicago, IL Zip 60611

APPLICANT
Name Long Ching
AllWest Environmental
Address 1 Sutter St., #600 Phone (415)391-2510
City San Francisco, CA Zip 94104

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other N/A
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57-522125

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 2 ft. Number 1

GEOTECHNICAL PROJECTS
Number of Borings N/A Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE April 20, 1995
ESTIMATED COMPLETION DATE April 20, 1995

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

APPLICANT'S SIGNATURE [signature] Date 3/21/95

FOR OFFICE USE

PERMIT NUMBER 95160
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 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 WELLS, INCLUDING PIEZOMETERS
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. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

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

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

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 24 Mar 95
Wyman Hong

31992

APPENDIX B

UNIFIED SOIL CLASSIFICATION SYSTEM

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOIL	GRAVELS More than half of course fraction is larger than No. 4 sieve.	Clean gravels (less than 5% of fines)	GW	Well graded gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		Gravel with fines	GM	Silty gravels or gravel-sand-silt mixtures, with non-plastic fines.
			GC	Clayey gravels or gravel-sand-clay mixtures, with plastic fines.
	SANDS More than half of course fraction is smaller than No. 4 sieve.	Clean sands (less than 5% of 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 fines	SM	Silty sands or sand-silt mixtures, with non-plastic fines.
			SC	Clayey sands or sand-clay mixtures, with plastic fines.
FINE GRDINED SOIL	SILTS AND CLAYS Liquid Limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, 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 and organic silty clays of low plasticity.
	SILTS AND 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 silts.
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils.

BORING LOG LEGEND

Sampler Drive Interval	Relatively Undisturbed Sample Recovered and Preserved
Sampler Driven, No Sample Recovery	Disturbed Sample Recovered and Preserved

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Log of Boring: MW-4
Project Name: X Well
Project Number: 95117.23
Drilling Date: June 17, 1995

Drilling Contractor: Bay Area Exploration
Drill Rig: 540 Hollow Stem Auger
Auger: 8-inch Hollow Stem Auger

Sampler: California Modified Split Spoon
Hammer: 140 lbs. with 18-inch drop
Logged By: Keith Craig

Blow Count	OVM Reading	Sample Interval	Depth in Feet	USCS Code	Soil Description
			1		6" concrete 6" of baserock
2 4 4	ND		2	GW	Dark gray, sandy gravel (GW) moderately dense, moist, oily, slight odor.
			3	CL	Dark gray, silty clay, (CL) soft, wet, with gravely clay denses. (fill) oil, slight odor.
	ND		4		
3 6 10			5		
			6		
			7		Moderate brown sandy clay, (CL-CH) stiff, wet to saturated, mottled, slight black.
			8		
			9	CL-CH	
6 8 10	ND		10		
			11		
			12		Very stiff clay at 12'.
			13		
			14		
6 8 10	ND		15		
			16		
			17	CL	Increases sand content 30-40% from 18' to 22'.
			18		
			19		
9 15 18	ND		20		
			21		

Well Profile: Christy Box, Locking Cap, Grout, Bentonite, Blank casing, Sand pack, Slotted PVC Casing

Other well logs also had signs of semi-confined conditions.

ND = Not detected by the Organic Vapor Meter (OVM)

AllWest
AllWest Environmental, Inc.

Log of Boring: MW-4

Project Name: X Well

Project Number: 95117.23

Drilling Date: June 17, 1995

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
				Sand Pack / Slotted PVC Casing / Sand Pack		Groundwater encountered at 21', saturated.
			20			
			21			
			22		CL	
			23			
			24			Increase to 30% sand at 24'.
8			25			
10 18	ND		26	End Cap		Borehole terminated at 26.0'. Groundwater encountered at 21'. Rose to 4.5'.
			27			
			28			
			29			
			30			
			31			
			32			
			33			
			34			
			35			
			36			
			37			
			38			
			39			
			40			

Groundwater Monitoring Well Development Field Log

Project No.: 95117.23 Project Name: X Well

Well No.: MW-4 Well Location: South of UST Excavation

Well Depth: 24.32 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 5.69 (ft.) Date: 6-20-95 Time: 1500

Water Column in Well: 1863 (ft.) Well Volume: 2.98 (gal.)

Odor? No Free Product? No Thickness: No

Purging Method: Hand Pump ___ Submersible Pump X Bailer ___ Other ___

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1600	10.20	3700	74.2		0.2	End surge 10 min.
1605	8.22	2240	69.7		5.0	Highly turbid
1620	6.94	3200	75.6		10.0	End surge 10 min.
1650	6.86	3970	75.6		15.0	Recharged
1710	6.35	3550	70.6		18.0	End surge 10 min.
1715	6.20	2900	67.8		25.0	Dewatered
1735	5.96	3430	67.0		35.0	Moderately to slightly turbid. Dewatered.

Purging Start Time: 1600 Purging Stop Time: 1735

Total Volume Purged: 35.0 (gal.) Well Dewater? 3 times

Water Level Prior to Sampling: N/A (ft.) Time: N/A

Sampling Method: Teflon Bailer N/A Disposable Bailer N/A Sampling Pump N/A

Sample Collected: Did not sample Sample No.: ___

Remark: Did not sample well

Developer: Keith B. Craig Date/Time: 6/20/95, 1740

APPENDIX C

Appendix C

GROUNDWATER SAMPLING PROCEDURES

Upon arriving at the groundwater monitoring well site, each monitoring well vault and well casing are first examined for damage which could render the well inoperable. Any water collected during the recent rains were purged from the well vault to avoid contamination from rain water. The upper end-cap was then removed and an organic vapor meter (OVM) was used to detect hydrocarbon vapor that might exist inside the well casing. The reading of the OVM was then recorded onto the groundwater sampling field log. After an appreciable time for groundwater levels to equilibrate, electric water level sounder was lowered into the well casing to measure the depth to water to the nearest 0.01 feet. A clear polyethylene bailer was then lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer was carefully examined for floating product or product sheen.

After initial measurements were completed and recorded, each monitoring well was purged by an electrical submersible pump or decontaminated teflon bailer. A minimum of 3 well volumes of groundwater was purged. Groundwater quality parameters (temperature, pH, and conductivity) were monitored with a combination meter after each well volume was removed. Purging was considered complete when purging indicators were stabilized (consecutive readings within 10% of each other) or the purged water was relatively free of sediments. All purged water was temporarily stored on-site in labeled 55-gallon drums pending test results to determine the proper disposal method. If no contamination was found then the purge water was disposed of as nonhazardous.

Groundwater sampling was conducted after the water level in the well recovered to at least 80% of the initial level that was recorded before purging. The groundwater sample was collected using a disposable bailer, which was discarded after the sampling event. Upon retrieval of the disposable bailer, the retained water was carefully transferred to appropriate glass container(s) (three 40-ml VOAs) furnished by the analytical laboratory. A bottom emptying device was placed on the bailer to minimize the loss of volatile organics during transfer. All sample containers were fitted with teflon lined septum/cap and filled such that no headspace was present. After the water sample was properly transferred to the appropriate containers, the containers were labeled and immediately placed on ice in an insulated cooler to preserve the chemical characteristics of the sample.

To prevent cross contamination, all groundwater sampling equipment that came into contact with the groundwater was thoroughly cleaned by washing in Alconox (a non-phosphate detergent) solution and double rinsed with distilled water prior to each well sampling event. Groundwater samples were stored and transported in an insulated cooler filled with crushed ice. The analytical laboratory collected the samples from the site or from the *AllWest* office. The samples were delivered to the analytical laboratory by a special courier of the laboratory. All samples were transported under strict Chain-of-Custody document protocol from the time of sample collection to the time of arrival at the laboratory.

APPENDIX D

Groundwater Monitoring Well Sampling Field Log

Project No.: 95117.28 Project Name: X Monitor

Well No.: MW-1 Well Location: down-gradient

Well Depth: 23.90 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 4.79 (ft.) Date: 6/27/95 Time: 1245

Water Column in Well: 18.21 (ft.) Well Volume: 2.91 (gal.)

Odor? No Free Product? No Thickness: _____

Purging Method: Hand Pump ___ Submersible Pump X Bailer ___ Other ___

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1250	5.63	1880	64.8		0.2	Slight Turbidity
1252	5.27	2230	66.1		3.0	Clear
1254	5.34	2190	66.0		6.0	
1255	5.28	2190	65.5		9.0	
1256	5.39	2220	65.5		12.0	
1258	5.38	2210	64.7		16.0	

Purging Start Time: 1250 Purging Stop Time: 1300

Total Volume Purged: 16.0 (gal.) Well Dewater? Partially

Water Level Prior to Sampling: 4.79 (ft.) Time: 1400

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump ___

Sample Collected: 3 VOAS 40 mls 2 Amber liters Sample No.: MW-1

Remark: Sample submitted for TPH-gasoline, BTXE, to AMER.

Sampler: Keith B. Craig Date/Time: 6/27/95 1400

Groundwater Monitoring Well Sampling Field Log

Project No.: 95117.28 Project Name: X Well Sample

Well No.: MW-2 Well Location: down-gradient

Well Depth: 19.60 (ft.) Casing Diameter: _____ (in.)

Depth to Water: 4.99 (ft.) Date: 6/27/95 Time: 1215

Water Column in Well: 14.61 (ft.) Well Volume: 2.34 (gal.)

Odor? Yes Free Product? No Thickness: _____

Purging Method: Hand Pump ___ Submersible Pump X Bailer ___ Other ___

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1220	6.28	2030	64.7		0.2	Mod. Turbidity
1221	5.87	1480	65.4		2.5	Slight Turbidity
1223	5.46	1620	65.0		5.0	Clear
1225	5.31	1690	65.1		7.0	Dewatered
1235	5.64	1670	65.7		9.0	Slight Turbidity
1237	5.47	1660	65.2		12.0	Clear

Purging Start Time: 1219 Purging Stop Time: 1240

Total Volume Purged: 12.0 (gal.) Well Dewater? Yes

Water Level Prior to Sampling: 4.99 (ft.) Time: 1345

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump _

Sample Collected: 3 VOAS 40 ml 2 Amber liters Sample No.: MW-2

Remark: Sample were submitted for TPH-gasoline & BTXE to AMER.

Sampler: Keith B. Craig Date/Time: 6/27/95

Groundwater Monitoring Well Sampling Field Log

Project No.: 95117.28 Project Name: X Monitor

Well No.: MW-3 Well Location: up-gradient

Well Depth: 19.71 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 5.03 (ft.) Date: 6/27/95 Time: 1115

Water Column in Well: 14.68 (ft.) Well Volume: 2.35 (gal.)

Odor? No Free Product? No Thickness: _____

Purging Method: Hand Pump ___ Submersible Pump X Bailer ___ Other ___

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1110	6.82	2710	64.3		0.3	Mod. Turbidity
1112	6.35	1790	64.5		2.5	Mod. Turbidity
1113	6.07	1840	64.6		5.0	Clear
1115	5.75	2010	63.8		7.5	Dewatered
1127	5.54	2110	65.1		9.0	Slight Turbidity
1128	5.66	2030	64.1		12.0	Clear

Purging Start Time: 1110 Purging Stop Time: 1130

Total Volume Purged: 12.0 (gal.) Well Dewater? Yes

Water Level Prior to Sampling: 5.03 (ft.) Time: 1145

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump _

Sample Collected: 3 VOAS 40 ml, 2 Amber liters Sample No.: MW-3

Remark: Sample submitted to AMER for TPH-gasoline and BTXE.

Sampler: Keith B. Craig Date/Time: 6/27/95 1145

Groundwater Monitoring Well Sampling Field Log

Project No.: 95117.28 Project Name: X Well Sampling

Well No.: MW-4 Well Location: cross-gradient

Well Depth: 24.32 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 4.60 (ft.) Date: 6/27/95 Time: 930

Water Column in Well: 19.72 (ft.) Well Volume: 3.16 (gal.)

Odor? No Free Product? No Thickness: _____

Purging Method: Hand Pump ___ Submersible Pump X Bailer ___ Other ___

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
950	6.50	2100	63.5		0.3	High Turbidity
951	6.21	1880	64.3		3.0	Slight Turbidity
952	6.00	1900	64.6		5.0	Slight Turbidity
953	5.72	2050	64.1		8.0	Slight Turbidity
954	5.68	2220	63.5		11.0	Dewatered
1000	5.96	2530	63.7		14.0	Dewatered
1002	5.75	2320	63.8		16.0	Dewatered

Purging Start Time: 950 Purging Stop Time: 1003

Total Volume Purged: 16.0 (gal.) Well Dewater? 2 times

Water Level Prior to Sampling: 6.70 (ft.) Time: 1030

Sampling Method: Teflon Bailer ___ Disposable Bailer X Sampling Pump _

Sample Collected: 3 VOAS 40 ml 2 Amber liters Sample No.: MW-4

Remark: MW-5 is duplicate sample of MW-4, samples were submitted to AMER for TPH-gasoline and BTXE.

Sampler: Keith B. Craig Date/Time: 6/27/95, 1100

APPENDIX E

AMER
Advanced Materials Engineering Research, Inc.

June 23, 1995

JUN 27 1995

Mr. Keith Craig
All West Environmental, Inc.
1 Sutter Street, #600
San Francisco, CA 94104

Regarding: **Analytical Results**
Client Reference: X Well, #95117.23
AMER ID: E1162

Dear Mr. Keith Craig:

Enclosed are the lab result(s) for the sample(s) submitted to AMER for the project above. The sample(s) will be disposed of by the laboratory after 30 days from the time they were received.

We appreciate the opportunity to be of assistance to you. If you have any questions or comments, please feel free to contact me at (408) 738-3033.

Sincerely,

Kayvan Kimyai
Sales/ Senior Environmental Chemist

Attachments

250 Santa Ana Court, Sunnyvale, CA 94086 • Tel. (408) 738-3033 • Fax. (408) 738-3035

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
AllWest Environmental, Inc.
One Sutter Street, #600
San Francisco, CA 94104
MATRIX: SOIL
PROJECT MANAGER: Keith Craig
PROJECT: X Well, #95117.23

DATE SAMPLED: 06-17-95
DATE RECEIVED: 06-19-95
DATE REPORTED: 06-23-95
AMER ID: E1162

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
MW-4-5.0	E5061901	ND	1
Units		mg/kg	
Method Detection Limit		1 mg/kg	

ND Not Detected. All analytes recorded as ND were found to be at or below the detection limit. Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

250 Santa Ana Court, Sunnyvale, CA 94086 • Tel. (408) 738-3033 • Fax. (408) 738-3035

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8020

CLIENT:
AllWest Environmental, Inc.
One Sutter Street, #600
San Francisco, CA 94104
MATRIX: SOIL
PROJECT MANAGER: Keith Craig
PROJECT: X Well, #95117.23

DATE SAMPLED: 06-17-95
DATE RECEIVED: 06-19-95
DATE REPORTED: 06-23-95
AMER ID: E1162

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
MW-4-5.0	E5061901	ND	ND	ND	ND	1
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Method Detection Limits		5.0ug/kg	5.0ug/kg	5.0ug/kg	5.0ug/kg	

ND Not Detected. All analytes recorded as ND were found to be at or below the detection limit.
Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

250 Santa Ana Court, Sunnyvale, CA 94086 • Tel. (408) 738-3033 • Fax. (408) 738-3035

EPA METHOD TEST QA/QC TABLE

AMER WORKORDER: E1162

AMER I.D. Number:	E1162-MSP	Analytical Method:	EPA M. 8015/8020
Project:	X Well, #95117.23	Analysis date:	06-22-95
Ext/Prep. Method:	EPA5030 & EPA3550	Analyst:	DL
Date:	06-21-95	Matrix:	Soil
Analyst:	dl	Unit:	mg/kg

Analyte	Sample Result	Spike Level	Matrix Spike Result	MS Recovery %	Matrix Spike Dul. Result	MSD Recovery %	Average Recovery %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.000	0.100	0.108	108	0.107	107	108	66	142	1	21
Toluene	0.000	0.100	0.106	106	0.106	106	106	59	139	0	21
Chlorobenzene	0.000	0.100	0.107	107	0.106	106	107	60	133	1	21
TPH-Gasoline	0.000	2.500	2.743	110	2.752	110	110	60	130	0	30

Notes:
Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
Spike Level- Level of Concentration Added to the Sample
MSP Result- Matrix Spike Result
MSP %R- Matrix Spike Percent Recovery
MSPD Result- Matrix Spike Duplicate Result
MSPD %R- Matrix Spike Dublicate Percent Recovery
AVG. %R - Average Recovery for MSP & MSPD % Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

California Laboratory Services — AMER — CHAIN OF CUSTODY — LOG NO. 13281

CLIENT NAME: AllWest Environmental
ADDRESS: 1 Sutter ST #600
San Francisco Ca 94104
PROJECT NAME: Xwell
PROJECT MANAGER: Keith Cady PHONE # 415 391-2510
SAMPLED BY: Keith Cady
JOB DESCRIPTION: Monitoring well installation
SITE LOCATION: 1055 Eastshore ~~Hwy~~ Albany

CLIENT JOB NUMBER: 95117.23
DESTINATION LABORATORY:
[ ] CLS 3249 FITZGERALD RD. RANCHO CORDOVA, CA 95742
[X] OTHER AMER Sunnyvale

FIELD CONDITIONS: Rain
COMPOSITE: NO
SPECIAL INSTRUCTIONS: Normal TAT

DATE	TIME	SAMPLE IDENTIFICATION	METHOD	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	8015(M) TPH gasoline	8020 BTXE only					TURN AROUND TIME: 24 HOURS	48 HOURS	1 WEEK	2 WEEKS	NOTE / FIELD READINGS
6-17-95	830	MW-4-5.0		Soil	1	Brass Liner	no	X	X							X		All ND on OVM

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE	TIME	REC'D BY (SIGN)	PRINT NAME / COMPANY
Keith B Cady	Keith Cady AllWest	6-19-95	1220	Masued Mirza	Masued Mirza
Masued Mirza	MASOUED Mirza	6-19-95	1322		Kayvan Kiniyai / AMER.

REC'D AT LAB BY: | DATE / TIME: | CONDITIONS / COMMENTS:

SHIPPED VIA: [X] FED X [ ] UPS [ ] OTHER _____ AIR BILL #

AMER

Advanced Materials Engineering Research, Inc.

July 10, 1995

Mr. Keith Craig
All West Environmental, Inc.
1 Sutter Street, #600
San Francisco, CA 94104

JUL 14 [illegible]5

Regarding: **Analytical Results**
Client Reference: Project X, #95117.28
AMER ID: E1185

Dear Mr. Keith Craig:

Enclosed are the corrected lab result(s) for the sample(s) submitted to AMER for the project above. Please substitute this report file for the one that was submitted on July 05, 1995.

We apologize for any problems that this may typographical error may have caused. If you have any questions or comments, please feel free to contact me at (408) 738-3033.

Sincerely,

Kayvan Kimyai
Sales/ Senior Environmental Chemist

Attachments

250 Santa Ana Court, Sunnyvale, CA 94086 • Tel. (408) 738-3033 • Fax. (408) 738-3035

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
Allwest Environmental, Inc.
One Sutter Street, #600
San Francisco, CA 94104
MATRIX: WATER
PROJECT MANAGER: Keith Craig
PROJECT: Project X, #95117.28

DATE SAMPLED: 06-27-95
DATE RECEIVED: 06-27-95
DATE REPORTED: 07-05-95
AMER ID: E1185

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
MW-4	E5062713	ND	1
MW-3	E5062714	ND	1
MW-2	E5062715	**3800**	1
MW-1	E5062716	ND	1
Units		ug/L	
Method Detection Limit		50ug/L	

ND Not Detected. All analytes recorded as ND were found to be at or below the detection limit. Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

250 Santa Ana Court, Sunnyvale, CA 94086 • Tel. (408) 738-3033 • Fax. (408) 738-3035

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 602/8020

CLIENT:
Allwest Environmental, Inc.
One Sutter Street, #600
San Francisco, CA 94104
MATRIX: WATER
PROJECT MANAGER: Keith Craig
PROJECT: Project X, #95117.28

DATE SAMPLED: 06-27-95
DATE RECEIVED: 06-27-95
DATE REPORTED: 07-05-95
AMER ID: E1185

Client I.D.	AMER I.D.	Benzene	Toluene	Ethyl Benzene	Total Xylene	DF
MW-4	E5062713	ND	ND	ND	ND	1
MW-3	E5062714	ND	ND	ND	ND	1
MW-2	E5062715	**260**	**9.8**	**190**	**310**	1
MW-1	E5062716	**0.8**	ND	**1.3**	**3.2**	1
Units		ug/L	ug/L	ug/L	ug/L	
Method Detection Limits		0.5ug/L	0.5ug/L	0.5ug/L	0.5ug/L	

ND Not Detected. All analytes recorded as ND were found to be at or below the detection limit.
Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

250 Santa Ana Court, Sunnyvale, CA 94086 • Tel. (408) 738-3033 • Fax. (408) 738-3035

California Laboratory Services

CHAIN OF CUSTODY

LOG NO. 06828

CLIENT NAME: All West
ADDRESS: 1 Sutter ST #600
San Francisco CA 94104
PROJECT NAME: Project X
PROJECT MANAGER: Keith Coats PHONE: (415) 391-2510
SAMPLED BY: Keith Coats
JOB DESCRIPTION: monitoring well sampling
SITE LOCATION: 1055 Eastshore

CLIENT JOB NUMBER: 95117.28

DESTINATION LABORATORY:
~~CLS~~ ~~3249 FITZGERALD RD RANCHO CORDOVA, CA 95742~~
~~OTHER~~ ~~ANLER~~

PRESERVATIVES

ANALYSIS REQUESTED: 8015m TPH-GAS / BTEX

FIELD CONDITIONS:

COMPOSITE:

SPECIAL INSTRUCTIONS: Call Long Ching for Analyses (415) 391-2510

TURN AROUND TIME: 24 HOURS | 48 HOURS | 1 WEEK | 2 WEEKS

NOTE / FIELD READINGS

DATE	TIME	SAMPLE IDENTIFICATION	METHOD	MATRIX	CONTAINER NO.	CONTAINER TYPE	24 HOURS	48 HOURS	1 WEEK	2 WEEKS
6-27-95		MW-5		water	2	Amber			X	
		MW-5			3	40 ml VOA			X	
		MW-4			2	Amber			X	
		MW-4			3	40 ml VOA			X	
		MW-3			2	Amber			X	
		MW-3			3	40 ml VOA			X	
		MW-2			2	Amber			X	
		MW-2			3	40 ml VOA			X	
		MW-1			2	Amber			X	
		MW-1			3	40 ml VOA			X	
		TRIP BLANK			3	VOA				

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE	TIME	REC'D BY (SIGN)	PRINT NAME / COMPANY
Keith Coats	Keith Coats All West	6-27-95	1520		
Masoud Mirza	Masoud Mirza	6/27/95	1520		Kayvan Ichyai / AMEC

REC'D AT LAB BY:

DATE / TIME:

CONDITIONS / COMMENTS:

SHIPPED VIA: ☐ FED X ☐ UPS ☐ OTHER _____ AIR BILL #