LETTER REPORT
AHMANSON DEVELOPMENTS
QUARTERLY GROUNDWATER QUALITY
MONITORING — NOVEMBER 1992
LAGUNA OAKS SITE
FOOTHILL BOULEVARD
PLEASANTON, CALIFORNIA

Job No. 14943-062-015
December 21, 1992

DAMES & MOORE

DAMES & MOORE

221 MAIN STREET, SUITE 600, SAN FRANCISCO, CALIFORNIA 94105-1917
(415) 896-5858 FAX: (415) 882-9261

December 21, 1992
Job No. 14943-062-015

Alameda County Health Agency
80 Swan Way, Suite 200
Oakland, CA 94621

Attention: Mr. Ravi Arulanathan, Ph.D., CHMM
Senior Hazardous Materials Specialist

Letter Report
Ahmanson Developments
Quarterly Groundwater Quality Monitoring
November 1992
Laguna Oaks Site
Foothill Boulevard
Pleasanton, California

Dear Mr. Arulanathan:

At the request of Home Savings of America, transmitted with this letter is our report describing the quarterly groundwater quality monitoring performed for the Laguna Oaks site on Foothill Boulevard in Pleasanton, California.

Please call should you have questions regarding this report.

Respectfully submitted,

DAMES & MOORE

Peter Davis
Staff Geologist

Eugenia Sangines, R.G.
Senior Geologist

Arshud Mahmood, Ph.D., R.G.E.
Associate

cc: Gilbert Swe, Home Savings of America
Mark Kehke, Ahmanson Developments
David Ralston, Ahmanson Developments
John Jang, California Regional Water Quality Control Board

DAMES & MOORE

221 MAIN STREET, SUITE 600, SAN FRANCISCO, CALIFORNIA 94105-1917
(415) 896-5858 FAX: (415) 882-9261

December 21, 1992
Job No. 14943-062-015

Home Savings of America
4900 Rivergrade Road
Irwindale, CA 91706

Attention: Mr. Gilbert Swe

Dear Mr. Swe:

Letter Report
Ahmanson Developments
Quarterly Groundwater Quality Monitoring
November 1992
Laguna Oaks Site
Foothill Boulevard
Pleasanton, California

Dames & Moore is pleased to present this letter report describing the quarterly groundwater quality sampling and analyses performed for the Laguna Oaks site on Foothill Boulevard in Pleasanton, California.

Environmental investigations conducted at the Laguna Oaks site have indicated that concentrations of gasoline, aromatic volatile organic compounds including benzene, toluene, ethylbenzene and xylenes (BTEX), and the chlorinated solvent tetrachloroethylene (PCE) have been detected in the subsurface of the site in the vicinity of an underground gasoline storage tank which was removed in June of 1989.

Subsequent to the underground fuel tank's removal, an environmental investigation was conducted by Berlogar Consultants which included the installation of three 2-inch monitoring wells in the vicinity of the removed fuel tank.

In March 1990, during regular monitoring of groundwater quality at the site, PCE was detected in the groundwater in addition to gasoline and gasoline components. Subsequently the Regional Water Quality Control Board (RWQCB) requested additional investigation of

the extent of PCE contamination and the continued quarterly monitoring of groundwater quality beneath the site.

In December 1990, Dames & Moore conducted a soil gas survey in the vicinity of the removed underground fuel tank. Results revealed PCE vapor concentrations which were centered on the former fuel tank location.

An additional environmental investigation was conducted at the site by Dames & Moore in July 1992. This investigation included:

- Trenching the shallow subsurface and analyzing near-surface soil samples for PCE;
- Installing 4 exploratory soil borings; and
- Installing one 4-inch-diameter monitoring well upgradient of the tank location and two 4-inch-diameter monitoring wells downgradient of the tank location.

Analytical results revealed that PCE was not present in any of the soil boring samples or in the groundwater from the new monitoring wells. One sample (T-5) from the trenching investigation, obtained in the vicinity of the underground gasoline storage tank, was found to have PCE at a concentration of 28 μg/kg (parts per billion).

The July 1992 investigation appeared to be consistent with the results of the soil gas survey conducted by Dames & Moore in December 1990. The concentrations of the soil gas vapors were below detection limit in probes installed in the vicinity of MW-5 and MW-6 mirroring the groundwater analytical results from those wells during this investigation.

To facilitate closure of the site by the RWQCB, Dames & Moore is conducting quarterly groundwater quality monitoring of the six wells on-site. This round of monitoring was conducted between November 13 and 18, 1992. The six on-site monitoring wells were sampled and analyzed for the aromatic volatile organic compounds benzene, toluene, ethylbenzene, and xylene (BTEX) and for the chlorinated solvent tetrachloroethylene (PCE).

Prior to collecting groundwater samples for chemical analyses, each well was purged to ensure that the water collected would be representative of the formation groundwater. Depth to groundwater was measured to the nearest 0.01 foot with an electronic water level indicator, cleaned prior to each use. Groundwater elevations are summarized on Table 1. Three casing volumes of groundwater were removed from each well. MW1, 2, 3, and 4 were purged by hand, using a one-inch diameter stainless steel bailer (MW 1, 2 and 3) and a 4-inch diameter Teflon bailer (MW4). All downhole equipment was thoroughly decontaminated prior to use by scrubbing with a dilute detergent (trisodium phosphate) solution and double rinsing in distilled water. MW5 and MW6 were purged using a small gas-powered centrifugal pump. New PVC hose was used in each of these wells to prevent possible cross-contamination. Purge water was stored in labeled 55-gallon drums at the drum storage area previously established on the east side of the old Alviso Adobe.

As each well was purged the parameters temperature, pH, and electrical conductivity were periodically measured and recorded. Each well was purged until three casing volumes of groundwater had been removed or until the field parameters stabilized, whichever volume was greater. Of the six wells, MW2 and MW3 were purged and sampled in one day, the remainder recovered more slowly. Field measurements are summarized on Table 2. After each well was sufficiently purged, the water level was monitored until it recovered to approximately 90 percent of the initial water level.

Each well was sampled using a new disposable bailer on new nylon twine. Sample containers appropriate to the analyses required were filled with bottom discharge devices using the submerged-fill technique to minimize volatilization of contaminants from the sample. Each container was filled completely so that zero headspace resulted. Samples were immediately labeled with the owner's name, location, collector's name, date, time, sample number, and analyses required then stored in a cooler of blue ice for transport to the laboratory. Proper chain-of-custody documentation accompanied the samples to the laboratory.

A field blank sample ("FB") was collected for analysis after MW3 was sampled in order to evaluate whether ambient field conditions or sampling methods and equipment could have contributed contaminants to the sampled water.

The seven samples were analyzed by CKY Environmental Services in Pleasanton, California for BTEX by Method 602 (aromatic volatile organics) and for PCE by Method 601 (halogenated volatile organics) using a high-performance liquid chromatograph.

Analytical results revealed that PCE was present in the groundwater collected from wells MW2 and MW3, but was not detected above laboratory reporting limits in the samples from the other four wells. PCE concentrations of 20 μg/L and 200 μg/L were detected in MW2 and MW3, respectively. BTEX was not detected above laboratory reporting limits in any of the seven samples. These results are consistent with previous results. Analytical results are summarized on Tables 3 and 4 and compared to previous analytical results. Complete laboratory reports and the chain of custody are presented in Appendix A.

We appreciate the opportunity to provide consulting services to Ahmanson Developments and Home Savings of America. We trust that this letter report satisfies your requirements. Should you have questions regarding this report please call.

Respectfully submitted,

DAMES & MOORE

Peter Davis
Staff Geologist

Eugenia Sangines, R.G.
Senior Geologist

Arshud Mahmood, Ph.D., R.G.E.
Associate

Attachments:

Figure 1 — Site Plan
Table 1 — Groundwater Level Elevations
Table 2 — Summary of Field Measurements
Table 3 — Summary of PCE Analytical Results
Table 4 — Summary of BTEX Analytical Results
Appendix A — Laboratory Reports and Chain of Custody

cc: David Ralston, Ahmanson Developments
Mark Kehke, Ahmanson Developments
John Jang, California Regional Water Quality Control Board
Ravi Arulanathan, Alameda County Health Agency

b:PXD1.006

TABLE 1
GROUNDWATER LEVEL ELEVATIONS
QUARTERLY GROUNDWATER MONITORING
November 13, 1992

Ahmanson Development
Laguna Oaks Site
Pleasanton, California

Well #	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW1	390.33 (top of monument)	24.98	365.35
MW2	394.20 (top of monument)	27.06	367.14
MW3	390.69 (top monument)	24.68	366.01
MW4	400.64 (top of casing)	31.35	369.29
MW5	375.87 (top of casing)	12.34	363.53
MW6	376.37 (top of casing)	12.31	364.06

Note: Elevations are in feet above mean sea level.

TABLE 2
SUMMARY OF FIELD MEASUREMENTS
QUARTERLY GROUNDWATER MONITORING
November 1992

Ahmanson Developments
Laguna Oaks Site
Pleasanton, California

Well #	Temperature (°C)	pH	Specific Conductivity (μmhos/cm)
MW1	19.5	6.9	780
MW2	17.0	6.7	910
MW3	17.0	6.7	920
MW4	17.5	6.9	680
MW5	19.5	7.1	780
MW6	21.0	7.1	750

Note: Measurements indicate stabilized groundwater conditions after purging wells and prior to collecting samples.

TABLE 3
SUMMARY OF PCE ANALYTICAL RESULTS
QUARTERLY GROUNDWATER MONITORING
November 1992

Ahmanson Developments
Laguna Oaks Site
Pleasanton, California

Well #	Date and Results[1]						
	3/90	7/90	10/90	5/91	9/91	7/92[2]	11/92[2]
MW 1	NT	NT	ND	ND	ND	ND	ND
MW 2	NT≠	13	8.3	38	25	98	20
MW 3	NT≠	95	110[3]	370[4]	350[5]	610	200
MW 4*						ND	ND
MW 5*						ND	ND
MW 6*						ND	ND
FB							ND

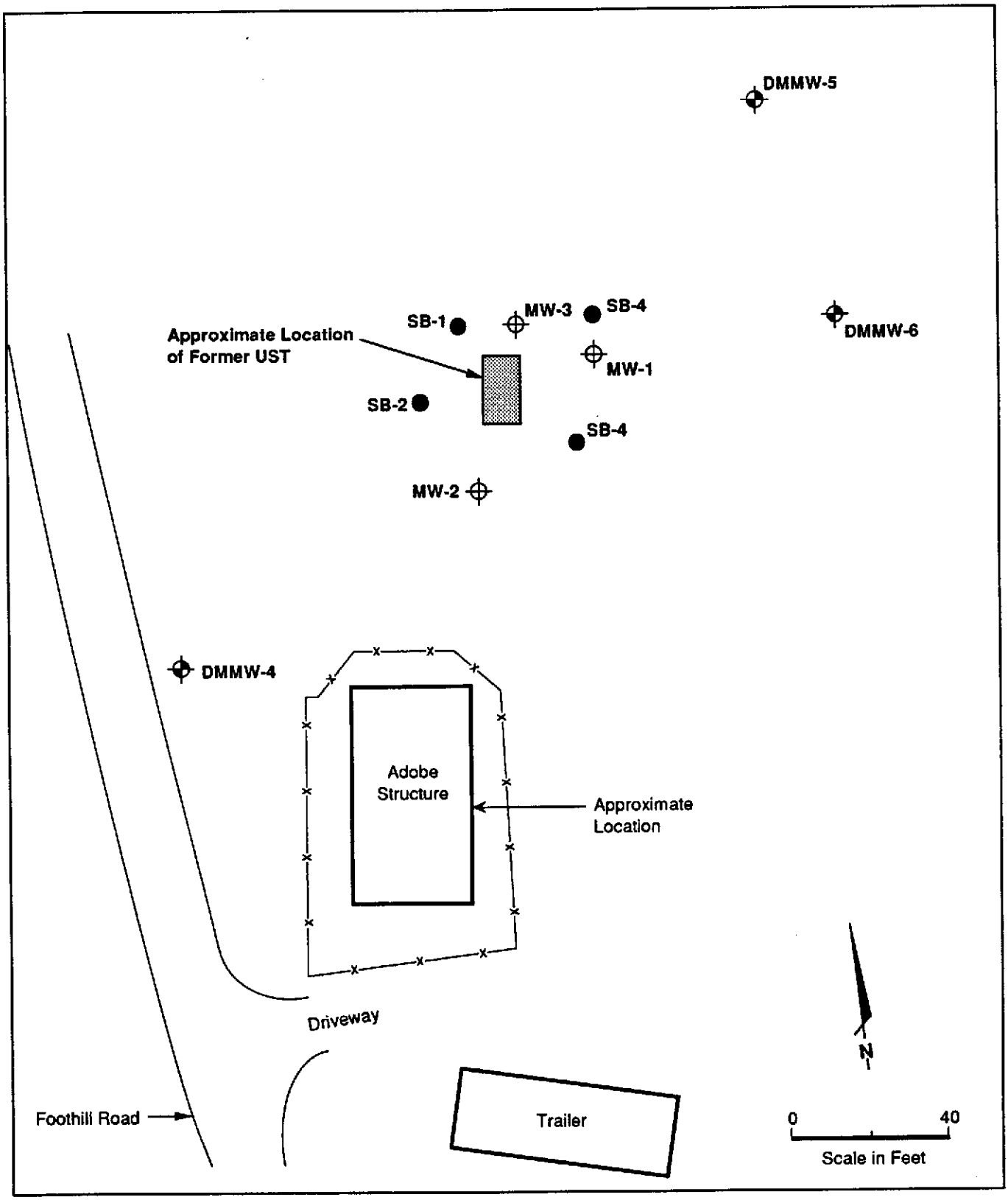
(1) Results in micrograms per liter (μg/L)
Detection limit = 1 μg/L unless noted
(2) Samples analyzed by CKY, Inc. Environmental Services in Pleasanton, CA.
(3) Detection limit = 2.5 μg/L
(4) Detection limit = 10 μg/L
(5) Detection limit = 5 μg/L
* MW-4, MW-5, and MW-6 installed by Dames & Moore, July 1992
ND = Not detected above laboratory reporting limit
NT = Not tested
≠ = Results of analysis for TPH as gasoline revealed the presence of a compound subsequently identified as PCE (Dames & Moore, 7/31/92)
FB = Field Blank

TABLE 4
SUMMARY OF BTEX ANALYTICAL RESULTS
QUARTERLY GROUNDWATER MONITORING
November 1992

Ahmanson Developments
Laguna Oaks Site
Pleasanton, California

Well #	Date and Results[1]						
	3/90	7/90	10/90	5/91	9/91	7/92[2]	11/92[2]
MW 1	ND	ND	ND	ND	ND	ND	ND
MW 2	ND	ND	ND	ND	ND	ND	ND
MW 3	ND	ND	ND except 1.0 μg/L of ethylbenzene	ND	ND	ND	ND
MW 4*						ND	ND
MW 5*						ND	ND
MW 6*						ND	ND
FB							ND

ND = Not detected above laboratory reporting limit
(1) Results in micrograms per liter (μg/L)
Detection limit = 0.5 μg/L unless noted
(2) Analyzed by CKY, Inc. Environmental Services in Pleasanton, CA.
Detection limit = 1.0 μg/L
* MW-4, MW-5, and MW-6 installed by Dames & Moore, July 1992
FB = Field Blank



KEY

● **SB-2**	Dames & Moore Soil Boring
⊕ **MW-2**	Existing Monitoring Well
⊕ **DMMW-4**	Dames & Moore Monitoring Well

Note: Monitoring Wells Surveyed by Martin M. Ron Associates, Inc.

SITE PLOT PLAN

Ahmanson Developments
Laguna Oaks PCE Investigation
Pleasanton, California

November 1992
14943-062-015

DAMES & MOORE

FIGURE 1

C K Y incorporated
Environmental Services

Date: 11/20/92
N9211-17

Dames & Moore
221 Main Street, Suite 600
San Francisco, CA 94105-1907

Attn: Mr. Peter Davis

Subject: Laboratory Report
Project: Ahmanson, Laguna Oaks

Enclosed is the laboratory report for samples received on 11/17/92. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported includes:

Method	No. of Analysis
EPA 8020	4 Water
EPA 8010	4 Water

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely,

Danny Hoang
Laboratory Director

3942 Valley Avenue, Suite F, Pleasanton, CA 94566 • Telephone 510-846-3188 • Fax: 510-846-1236

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/17/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/18/92
SAMPLE ID:	MW3	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-17-1		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	200	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/17/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/18/92
SAMPLE ID:	MW5	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-17-5		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	ND	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/17/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/18/92
SAMPLE ID:	MW2	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-17-4		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	20	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/17/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/20/92
SAMPLE ID:	FB	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-17-2		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	ND	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHOD - 602
BTEX

CLIENT:	Dames & Moore	**DATE REC'D:**	11/17/92
PROJECT:	Ahmanson	**DATE EXTRACTED:**	N/A
CONTROL NO:	N9211-17	**DATE ANALYZED:**	11/18/92
MATRIX:	Water		

		RESULTS (ug/L)				% SURRO
SAMPLE ID:	CONTROL NO:	Benz	Tol	Et Benz	Xyls	RECOVERY
MW3	N9211-17-1	ND	ND	ND	ND	119
FB	N9211-17-2	ND	ND	ND	ND	110
MW2	N9211-17-4	ND	ND	ND	ND	116
MW5	N9211-17-5	ND	ND	ND	ND	100
DETECTION LIMIT		1.0	1.0	1.0	1.0	

QUALITY CONTROL DATA

CLIENT: Dames & Moore **DATE EXTC'D:** N/A
PROJECT: Ahmanson **DATE ANALYZED:** 11/18/92
CONTROL NO: N9211-17

METHOD EPA 601
MATRIX: Water

SAMPLE ID: Blank

COMPOUND	SAMPLE RESULTS (ug/L)	AMOUNT SPIKED (ug/L)	% REC.	DUP. % REC.	RPD
PCE	ND	50	96	82	16

DATE ANALYZED: 11/20/92

SAMPLE ID: Blank

COMPOUND	SAMPLE RESULTS (mg/L)	AMOUNT SPIKED (mg/L)	% REC.	DUP. % REC.	RPD
PCE	ND	20	85	70	19

QUALITY CONTROL DATA

CLIENT: Dames & Moore
PROJECT: Ahmanson
CONTROL NO: N9211-17
DATE EXTC'D: N/A
DATE ANALYZED: 11/18/92

METHOD EPA 602
MATRIX: Water

SAMPLE ID: Blank

COMPOUND	SAMPLE RESULTS (ug/L)	AMOUNT SPIKED (ug/L)	% REC.	DUP. % REC.	RPD
Benzene	ND	20	85	75	13
Toluene	ND	20	75	75	0
Ethylbenzene	ND	20	75	75	0
Xylenes	ND	40	78	78	0

DATE ANALYZED: 11/20/92

SAMPLE ID: Blank

COMPOUND	SAMPLE RESULTS (ug/L)	AMOUNT SPIKED (ug/L)	% REC.	DUP. % REC.	RPD
Benzene	ND	100	79	79	0
Toluene	ND	100	85	84	1
Ethylbenzene	ND	100	84	82	2
Xylenes	ND	200	79	80	1

CHAIN-OF-CUSTODY RECORD

WHITE COPY - Original (Accompanies Samples) YELLOW COPY - Collector PINK COPY - Project Manager

	Boring or Well Number	Sample Number	Depth	Time	Sample Type	Container Type	VOA 601 (8010) PCE	VOA 602 (8020) BTEX	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (M)	TITLE 22 METALS	WET Test	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TCLP	pH	ASBESTOS	FIELD NOTES:	Total Number Of Containers	Laboratory Note Number
01	MW3			16:40	GRAB H2O	VOAS		X														(w/HCl) "HOT"	3	
	MW3				↓	↓	X																3	
02	FB			16:55				X														HOLD (w/HCl)	3	
	FB						X															HOLD-FIELD BLANKS	3	
03	MW7			17:10				X														(w/HCl) "HOT"	3	
	MW7						X															HOLD	3	
	MW2			17:20				X														(w/HCl) PROB. "HOT"	3	
04	MW2						X																3	
05	MW5			12:00	GRAB H2O	VOAS		X														(w/HCl) PROB. "CLEAN"	3	
17	MW5			12:00		"	X																3	

N921117

HOLD

R-5

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Peter D[illegible]	11-17-92	
C [illegible]	11/17/92	C [illegible]

ANALYTICAL LABORATORY: CKY

LABORATORY CONTACT: DANNY HOANG

D&M CONTACT: P. DAVIS, MIKE GEMMELL PHONE: 896-5858

DAMES & MOORE

221 MAIN STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94105-1907
(415) 896-5858 FAX (415) 882-9261

LABORATORY NOTES: NORMAL TURNAROUND –
Please "HOLD" MW7 + FB SAMPLES
Note: MW 2 + MW3 SAMPLED LAST FRIDAY, ON ICE SINCE.

JOB NO.: 14943-062-015 SHEET 1 OF 1

PROJECT Ahmanson, Laguna Oaks

LOCATION Pleasanton

COLLECTOR P. DAVIS DATE OF COLLECTION 11-13 + 11-17

CHAIN-OF-CUSTODY RECORD

WHITE COPY - Original (Accompanies S...ples) YELLOW COPY - Collector PINK COPY - Project Manager

N9211 F7

Boring or Well Number	Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010 Pkg	VOA 602/8020 BTEX	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (M)	TITLE 22 METALS	WET Test	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TCLP	pH	ASBESTOS	FIELD NOTES:	Total Number Of Containers	Laboratory Note Number
FB (2)			16:55	GRAB H2O	VOA's		X														w/HCl	3	
FB			16:55	"	"	X															Unpreserved	3	

RELINQUISHED BY: (Signature) Peter Davis DATE/TIME 10:00 (11/20/92) RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY NOTES: Revised C.O.C. Please analyze "F.B." samples (previously on "hold")

ANALYTICAL LABORATORY: CKY

LABORATORY CONTACT: Danny Hoang

D&M CONTACT: Peter Davis PHONE: 839-3600

JOB NO.: 14943-062-015 SHEET 1 OF 1

PROJECT Ahmansan

LOCATION Pleasanton

COLLECTOR Peter Davis DATE OF COLLECTION 11-13-92

DAMES & MOORE
221 MAIN STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94105-1907
(415) 896-5858 FAX (415) 882-9261

C K Y incorporated
Environmental Services

Date: 11/17/92
N9211-20

Dames & Moore
221 Main Street, Suite 600
San Francisco, CA 94105-1907

Attn: Mr. Peter Davis

Subject: Laboratory Report
Project: Ahmanson, Laguna Oaks

Enclosed is the laboratory report for samples received on 11/18/92. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported includes:

Method	No. of Analysis
EPA 8020	3 Water
EPA 8010	3 Water

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely,

Danny Hoang
Laboratory Director

3942 Valley Avenue, Suite F, Pleasanton, CA 94566 • Telephone 510-846-3188 • Fax: 510-846-1236

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/18/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/18/92
SAMPLE ID:	MW4	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-20-1		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	ND	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/18/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/18/92
SAMPLE ID:	MW6	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-20-2		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	ND	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHODS - 601

CLIENT:	Dames & Moore	**DATE REC'D:**	11/18/92
PROJECT:	Ahmanson	**DATE ANALYZED:**	11/18/92
SAMPLE ID:	MW1	**MATRIX TYPE:**	Water
CONTROL NO:	N9211-20-3		

PARAMETERS (601)	RESULTS (ug/L)	DETECTION LIMIT (ug/L)
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl Chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
Methylene Chloride	ND	1
Trans-1,2-Dichloroethene	ND	1
cis 1,2 -dichloroethene	ND	1
1,1-Dichloroethane	ND	1
Chloroform	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
1,2-Dichloroethane	ND	1
Trichloroethene	ND	1
1,2-Dichloropropane	ND	1
Bromodichloromethane	ND	1
2-Chloroethylvinylether	ND	1
Trans-1,3-Dichloropropene	ND	1
Cis-1,3-Dichloropropene	ND	1
1,1,2-Trichloroethane	ND	1
Tetrachloroethene	ND	1
Dibromochloromethane	ND	1
Chlorobenzene	ND	1
Bromoform	ND	1
1,1,2,2-Tetrachloroethane	ND	1
M-Dichlorobenzene	ND	1
P-Dichlorobenzene	ND	1
O-Dichlorobenzene	ND	1

EPA METHOD - 602
BTEX

CLIENT:	Dames & Moore	**DATE REC'D:**	11/18/92
PROJECT:	Ahmanson	**DATE EXTRACTED:**	N/A
CONTROL NO:	N9211-20	**DATE ANALYZED:**	11/18/92
MATRIX:	Water		

		RESULTS (ug/L)				**% SURRO**
SAMPLE ID:	CONTROL NO:	Benz	Tol	Et Benz	Xyls	RECOVERY
MW4	N9211-20-1	ND	ND	ND	ND	77
MW6	N9211-20-2	ND	ND	ND	ND	75
MW1	N9211-20-3	ND	ND	ND	ND	76
DETECTION LIMIT		1.0	1.0	1.0	1.0	

QUALITY CONTROL DATA

CLIENT: Dames & Moore **DATE EXTC'D:** N/A
PROJECT: Ahmanson **DATE ANALYZED:** 11/18/92
CONTROL NO: N9211-20

METHOD EPA 601
MATRIX: Water

SAMPLE ID: Blank

COMPOUND	SAMPLE RESULTS (ug/L)	AMOUNT SPIKED (ug/L)	% REC.	DUP. % REC.	RPD
Benzene	ND	20	85	75	13
Toluene	ND	20	75	75	0
Ethylbenzene	ND	20	75	75	0
Xylenes	ND	40	78	78	0

QUALITY CONTROL DATA

CLIENT:0U Dames & Moore **DATE EXTC'D:** N/A
PROJECT: Ahmanson **DATE ANALYZED:**11/18/92
CONTROL NO: N9211-20

METHOD EPA 601
MATRIX: Water

SAMPLE ID: Blank

COMPOUND	SAMPLE RESULTS (ug/L)	AMOUNT SPIKED (ug/L)	% REC.	DUP. % REC.	RPD
PCE	ND	50	96	82	16

C. AIN-OF-CUSTODY REC RD

WHIT. PY - Original (Accomp. Samples) YELLOW COPY - Collector PINK COP'. oject Manager

	Boring or Well Number	Sample Number	Depth	Time	Sample Type	Container Type	VOA 601(8010) RCRA	VOA 602(8020) BTEX	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (M)	TITLE 22 METALS	WET Test	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TCLP	pH	ASBESTOS	FIELD NOTES:	Total Number Of Containers	Laboratory Note Number
01	MW4			10:45	GRAB WATER	VOA'S		X														W/HCl	3	
02	MW4			10:45			X															Unpreserved	3	
03	MW6			11:37				X														W/HCl	3	
	MW6			11:37			X															Unpreserved	3	
04	MW1			11:55				X														W/HCl	3	
	MW1			11:55			X															Unpreserved	3	

WAIT-TAT

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
Peter Davis 11-18-92 14:38

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
11-18-92 1430

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY NOTES:
NORMAL TURNAROUND

ANALYTICAL LABORATORY: CKY
LABORATORY CONTACT: D. HOANG
D&M CONTACT: P. DAVIS, MIKE GERMAN PHONE: ~~839~~ 8965858

DAMES & MOORE
221 MAIN STREET, SUITE 600
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(415) 896-5858 FAX (415) 882-9261

JOB NO.: 14943-062-015 SHEET 1 OF 1
PROJECT Ahmanson
LOCATION Laguna Oks, Pleasanton
COLLECTOR PETER DAVIS DATE OF COLLECTION 11-18-92