DRAFT
REMEDIAL INVESTIGATION
AND
FEASIBILITY STUDY REPORT

UNION PACIFIC RAILROAD YARD
SACRAMENTO, CALIFORNIA

Volume 5: Appendix H through K

Prepared For:

UNION PACIFIC RAILROAD COMPANY

By:

DAMES & MOORE

August 1990

DRAFT
REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
UNION PACIFIC RAILROAD YARD
SACRAMENTO, CALIFORNIA

VOLUME 5
APPENDIX H THROUGH K

DAMES & MOORE

August 1990
Job No. 00173-062-044

UPSAC_RI.001
DAMES & MOORE

Appendex H

APPENDIX H

CHAIN-OF-CUSTODY RECORDS

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED
JUL 31 1989

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE — DAMES & MOORE Phone (916) 364-5618
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACTO. CA. 95826
Client's or Representative's Signature Kevin A. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044 | PROJECT NAME UPRR - SACTO.
SAMPLERS (Signature) Kevin A. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (Purgeables)	418.1	8240	As Ca FA	As Analysis - TLM	8310 - PNA's	REMARKS	LAB USE ONLY LAB NO.
B-17	7/24	0925		X	B017B01.0	1				✓	✓		Brick Debris	
B-17		0955		X	B017B05.5	1				✓	✓			
B-17		1020		X	B017B08.5	1	✓	✓	✓	✓	✓	✓	Slight H/C Odor	
B-17		1400		X	B017B10.0	1	✓	✓	✓	✓			" " " BELOW IF	
B-17		1415		X	B017B15.0	1	✓	✓	✓	✓		✓	" " "	
B-17	↓	1445		X	B017B20.0	1	✓	✓	✓	✓			No Asbestos on 4 Hose 3	
P197	7/25	—		X	P197X03.0	1	✓			✓			KJR	
P197	↓	—		X	P197X05.0	1	✓			✓				

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin Brown	7/25/89	1600	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per M. V. Gore
1001
TAKE CORES FROM SAMPLE
RINSE FOR ANALYSIS

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00175-0052-044 PROJECT NAME UPRR-SACTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 Gas/BTEX	418.1	8240	As Cr. Pb	Asbestos - PLM	CAM METALS	REMARKS	LAB USE ONLY LAB NO.
B-18	7/25	0815		X	B018B03.0	1				✓	✓		BRICK DEBRIS	
B-18	"	0905		"	B018B10.0	1	✓	✓	✓	✓			B.I.	
B-18	"	0930		"	B018B15.0	1	✓	✓	✓	✓				
B-18	"	0955		"	B018B20.0	1	✓	✓	✓	✓				
B-19	↓	1440		↓	B019B10.0	1	✓	✓	✓	✓			↓	
B-19	7/26	0730		X	B019B15.0	1	✓	✓	✓	✓			BELOW INTERFACE	
B-20	"	1108		X	B020Y10.0	1	✓	✓	✓	✓			ALSO USE AS MATRIX SAKE B/I	
B-20	"	1109		X	B020X10.0	1	✓	✓	✓		✓	✓	B/I Include PNAS by 8310	
B-20	"	1110		X	~~B020~~ B20FD10.0	1				✓				
B-19	↓	0750		X	B019B20.0	1	✓	✓	✓	✓			B/I	

This Sample B-19 B20.0 was at Acculab

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	7/27/89	1600	Kat Burdette
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount per M.V. Quote #1001
TAKE CORES FROM SAMPLE RINGS FOR ANALYSIS

ACCULAB ENVIRONMENTAL SERVICES

3??? Lakeville Highway, Petaluma, CA 94952
x 806024, Petaluma, CA. 94975-6024
Telephone: (707)763-8245 FAX: (707)763-4065

RECEIVED 3/15-89

JUL 31 1989

DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 364-8698
Address 9300 TECH CENTER DR., STE 100
City, State, Zip SACTO, CA 95826
Client's or Representative's Signature Attn: Kevin Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME						NO. OF CONTAINERS	As, Cr, Pb	5b	8015 (GAS)	9240 + 413.1	8310	REMARKS	LAB USE ONLY LAB NO.
0073-022-044	UPSACTO													
SAMPLERS (Signature) CHRIS LONERGAN														
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION									
P199	7/24/89	—		X	P199X09.0		1	X					BI	
P200	"	—		X	P200X09.0		1	X		X			BI	
P201	"	—		X	P201X09.0		1	X					BI	
P193	7/25/89	—		X	P193X01.5		1	X					BI	
P196	"	—		X	P196X02.5		1	X					BI	
P198	"	—		X	P198X09.0		1	X					BI	
B-18	"	—		X	B018X00.0		1	X					SURFACE	
B-19	"	—		X	B019X00.0		1	X					"	
P189	7/26/89	—		X	P189X05.0		1	X		X			BI	
P190	"	—		X	P190X05.0		1	X		X			BI	
B-20	"	—		X	B020X00.0		1	X					SURFACE	
P191	"	—		X	P191X02.0		1	X		X	X	X	X	HNU HIT - VISUAL STAIN
P191	"	—		X	P191X03.0		1	X		X	X	X	X	HNU HIT
P192	"	—		X	P192X02.5		1	X			X			" "
P192	"	—		X	P192X05.0		1	X			X			" "
P192	"	—		X	P192X07.0		1	X			X			" "
P192	"	—		X	P192X08.5		1	X			X			" "
P191	"	—		X	P191X04.5		1		X					
P191	"	—		X	P191FD4.5		1	X						
P191	"	—		X	P191Y04.5		1	X					USE AS MATRIX SPIKE	
P191	"	—		X	P191MD4.5		1						USE AS MATRIX SPIKE DUPLICATE	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Chris Lonergan	7/26/89	1600	Pat Bruske
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER MV QUOTE # 1001
TAKE COPIES FROM SAMPLE RECEIPTS FOR ANALYSIS

RECEIVED

AUG 02 1989

ACCULAB 1061-3448-8

↳ Reported as 89-3451

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
ox 808024, Petaluma, CA, 94975-8024
Te. ..one: (707) 763-8245 FAX: (707) 763-4066

DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (916) 924-3695

Address 9320 Tech Center Drive Ste 100

City, State, Zip Sacramento CA 95826

Client's or Representative's Signature K. J. Brown

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00145-022 CH4

PROJECT NAME UPRR - Salto.

SAMPLERS (Signature) K. J. Brown for Rick Moore

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (Gasoline)	418.1	8240	As Cr TD	8310	Asbestos	REMARKS	LAB USE ONLY LAB NO.
B-19	7/26/89	0750		X	B019 B20.0		✓	✓	✓	✓			Not included w/ 7/26/89 Shipment	
B-20		1055			B020 B06.0					✓		✓	BRICK DEBRIS	
		1125			B020 B15.0		✓	✓	✓	✓			B/I	
↓		1145			B020 B20.0		✓	✓	✓	✓			B/I	45065
B-9		1450			B009 X 00.0					✓				
		1500			B009 B01.5		✓	✓		✓	✓		odor stain	
		1510			B009 B04.5		✓	✓		✓			" "	
	↓	1515			B009 B10.0		✓	✓		✓				
↓	7/27/89	0710			B009 B15.0		✓	✓		✓			B/I	
B-10		0930			B010 X 00.0					✓				45066
↓		0950			B010 B03.0		✓	✓		✓	✓		odor Hit	
B-9		1520			B009 B06.0		✓	✓		✓				
B-10		1000			B010 B06.0		✓	✓		✓			odor stain	
		1015			B010 B10.0		✓	✓		✓				
↓	↓	1020			B010 B15.0		✓	✓		✓			B.I.	
B-10	7/27/89													

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
K. J. Brown	7/27/89	1630	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% discount on MV Cont. # 1001

Take Cares From Small Fines For Municipal

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED ACCULAB OAKLAND
AUG 02 1989
C Reported as 89345

SAMPLE CHAIN OF CUSTODY / WORK ORDER

DAMES & MOORE

Client's Name DAMES AND MOORE Phone (916) 361-3697
Address 9320 TECH CENTER DR. STE. 100
City, State, Zip SACRAMENTO CA 95826
Client's or Representative's Signature Christine Lowman
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

→ R on 8.5. 89-3451

PROJ. NO. 00173-022
PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Chris Lowman

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX GAS CHEM	As Cd Cr Pb 8310	REMARKS - LAB USE ONLY LAB NO.
P175	7/27/89	—		X	P175X03.0	1	X	X	~~WELL #~~ - RELOG TO 89-3451
P175	"	—		X	P175X09.0	1		X	BI
P176	"	—		X	P176X03.0	1	X X	X	WELL # - 69
P176	"	—		X	P176X04.5	1	X X	X	WELL # 45070
P176	"	—		X	P176X05.0	1	X X	X	" " BI
P176	"	—		X	P176X08.0	1	X X	X X	" " " 45070
P177	"	—		X	P177X09.0	1		X	BI 3

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	7/27/89	1500	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
20% Discount on All Good
#1001
TAT 2 WEEKS From Date Of
Rush For Analysis

LAB COPY

Keiser

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

ACCU LAB 100 # 3589-89
→ Reported as # 893489

RECEIVED
AUG 03 1989
DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8695
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO CA. 95826
Client's or Representative's Signature Kevin J. Keiser
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 044
PROJECT NAME U.P.R.R. - SACTO.
SAMPLERS (Signature) RICK MOREN -

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cr Pb	8240	8015-GASOLINE	418.1	8310	CAM METALS	REMARKS	LAB USE ONLY LAB NO.
B-12	7/28	1120		X	B012B00.0	1	✓	✓	✓	✓				
		1210			B012B06.0	1	✓	✓	✓	✓			Odor Stain	
		1240			B012B10.0	1	✓	✓	✓	✓	✓		Odor Stain	
		1315			B012X15.0	1		✓	✓	✓	✓	✓	B/I OS	
		1330			B12FD15.0	1	✓						B/I Also use as Matrix Spike Duplicate	
		1340			B012Y15.0	1	✓	✓	✓	✓	✓		B/I Also use as Matrix Spike	
↓	↓	1350		↓	B012B20.0	1	✓	✓	✓	✓	✓			
B-11	7/31	1110			B011B00.0	1	✓	✓	✓	✓				
		1140			B011B04.5	1	✓	✓	✓	✓			B/I	
		1145			BC11B06.0	1	✓	✓	✓	✓			"	
		1210			B011B10.0	1	✓	✓	✓	✓			"	
		1230			B011B15.0	1	✓	✓	✓	✓			"	
↓	↓	1305			B011B25.0	1	✓	✓	✓	✓	✓		" Odor Hit	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	7/31/89	1600	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT per M.V. GUGLE
1001
TAKE CUTTINGS FROM SAMPLES FOR
ANALYSIS - SEE ATTACHMENT

LAB COPY

ACCULAB 100 # 3580-89

Reported as # 89-3488

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ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

DAMES & MOORE

Client's Name: DAMES AND MOORE Phone: (916) 364-1698

Address: 1300 TECH CENTER DR. STE. 100

City, State, Zip: SACRAMENTO, CA 95826

Client's or Representative's Signature: Christopher Gerlach

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 | PROJECT NAME: UPRR - SACRAMENTO

SAMPLERS (Signature): Chris Gerlach

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 Gasoline	418.1	As, Cu, Pb	Cam Metals			REMARKS	LAB USE ONLY LAB NO.
C178	7/27/89	—		X	P178X03.5	1	X	X	X				NAM NET	
P178	"	—		X	P178X08.5	1	X	X	X				NAM NET	
P178	"	—		X	P178X09.0	1	X	X	X				" " BI	
P178	"	—		X	P178X11.0	1	X	X	X				" " "	
P195	"	—		X	P195X00.5	1	X	X		X				
, 15	"	—		X	P195X00.5	1	-	-	X	-			USE AS MATRIX SPIKE	
P195	"	—		X	P195FD05	1			X					
P195	"	—		X	P195MD0.5	1			X				USE AS MATRIX SPIKE DUPLICATE	
P195	"	—		X	P195X01.0	1			X				BI	
P194	7/31/89	—		X	P194X01.5	1	X	X	X				NAM NET, BI	
P194	"	—		X	P194X03.5	1	X	X	X				" " "	
C14	"	—		X	P194X05.5	1	X	X	X				" " "	
P211	"	—		X	P211X01.5	1	X	X	X				" " "	
P211	"	—		X	P211X03.5	1	X	X	X				" " "	
P212	"	—		X	P212X01.5	1			X				BI	
P213	"	—		X	P213X03.0	1			X				BI	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	7/31/89	1600	Barbara Quan
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
			8/1/89
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 50% DETECT LIMIT

M.V. QUOTE # 1001

TRIP BLANKS FROM SAMPLES

FOR MONDAY

Acculab log# 350789

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ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/564-8698
Address 9300 TECH. CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044
PROJECT NAME UPRR - SALTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cd Pb	8015 - GAS. LINE	418.1	8240			REMARKS	LAB USE ONLY LAB NO.
B-14	8/1	0700		X	B014X00.0	1	✓							
		0730			B014B03.0	1	✓	✓	✓	✓			B/I	
		0738			B014B06.0	1	✓	✓	✓	✓			"	
		0810			B014B10.0	1	✓	✓	✓	✓			"	
		0820			B014B15.0	1	✓	✓	✓	✓			"	
B-15	8/1			X	B015B03.0	1	✓	✓	✓	✓			B/I	
					B015B06.0	1	✓	✓	✓	✓			"	
CO	1				TECH									

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/1/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per M.V. Quote #1001
- Take Cores From Samples For Analysis

RECEIVED

AUG 04 1989

ACCULAB 10d# 3008-89

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4068

DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name ~~[illegible]~~ DAMES & MOORE Phone (916) 364-8697

Address 1700 TECH CENTER DRIVE STE 100

City, State, Zip SACRAMENTO, CA 95834

Client's or Representative's Signature Tim Parker for Dames & Moore

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00175-022-004 PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) TIM PARKER / CHAS LONERGAN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 - gas/BTEX	418.1	Asbestos	5520			REMARKS / LAB USE ONLY LAB NO.
P217	8/1/89	—		X	P217X01.5	1	X	X	X				HNu hit 40
P217	"	—		X	P217X03.5	1	X	X	X				HNu hit 40
P217	"	—		X	P217X04.0	1	X	X	X				HNu hit BL 40
P217	"	—		X	P217X00.0	1			X				surface composite A
P216	"	—		X	P216X00.0	1			X				surface composite B
P216	"	—		X	P216X02.5	1	X	X	X				HNu Hit 40
P222	"	—		X	P222X00.0 2	1			X				Surface comp. 40
P222	"	—		X	P222X01.5	1	X	X	X				Hit hit 20
P222	"	—		X	P222X04.5	1	X	X	X	X			HNu Hit 40
P222	"	—		X	P222X05.0	1	X	X	X	X			HNu Hit BL 40
P222	"	—		X	P222X07.0	1	X	X	X	X			HNu Hit 20
P222	"	—		X	P222X08.0	1	X	X	X	X			HNu Hit 40
P222	"	—		X	P222X10.0	1	X	X	X				HNu Hit 20
P228	"	—		X	P228X00.0				X	X			surface comp. 40
P228	"	—			P228X01.5		X	X	X				HNu hit 40
P228	"	—			P228X03.5		X	X	X				HNu hit 20
P228	"	—			P228X04.0		X	X	X				HNu hit BL 40
P223					P223X00.0 Not here				X				surface comp 40
					17 SOIL PTS								

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
T Parker	8/1/89	4:00pm	Laura Alden
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: [illegible]

ACCU1001003534-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED

AUG 1989

DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/ 364-8615

Address 9300 TECH CENTER

City, State, Zip SACRAMENTO CA 95826

Client's or Representative's Signature Kevin J. Brown

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

QUOTE # 1001

PROJ. NO.	PROJECT NAME
00175-022-044	UPRC - SALTO.

SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cu Pb	8015 (Gas) Nev	418.1	8240			REMARKS	LAB USE ONLY LAB NO.
C-15	8/1/89	1400		X	B015X00.0	1	✓							5686
↓	↓	1515		↓	B015B10.0	1	✓	✓	✓	✓			B I	4 687
↓	↓	1530		↓	B015B15.0	1	✓	✓	✓	✓			"	
B-13	8/2/89	0730			B013X00.0	1	✓							
1		0750			B013B03.0	1	✓	✓	✓	✓			B I	45690
		0815			B013B06.0	1	✓	✓	✓	✓			"	45691
↓	↓	0835		↓	B013B10.0	1	✓	✓	✓	✓			"	45
↓	↓	0845		↓	B013B15.0	1	✓	✓	✓	✓			"	4569

ACCULAB #2633-891

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707)763-8248 FAX: (707)763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone (415) 364-2477
Address 9305 Tech Center Dr. Ste 150
City, State, Zip Sacramento, CA. 95826
Client's or Representative's Signature Chris Morrison
(signature authorizes the work and terms listed below)

RECEIVED
AUG 07 1989
DAMES & MOORE

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

QUOTE #1007

PROJ. NO. 00173-022 PROJECT NAME UPRR - Jacko
SAMPLERS (Signature) Chris Morrison + Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (Gas), Grav	8310	As, Cd, Pb	Lab prep	REMARKS	LAB USE ONLY LAB NO.
P223	8/2/89	—		X	P223X01.5	1	X	X			HAND AU	.45
P223	"	—		X	P223X03.5	1	X	X			" "	.46
P223	"	—		X	P223X04.0	1	X	X			" "	.40
P210	"	—		X	P210X01.5	1	X	X			" "	.40
P223	"	—		X	P223X06.0	1	X	X			" " RE	40
P229	"	—		X	P229X00.0	1		X			SURFACE	.45670
P224	"	—		X	P224X00.0	1		X			"	.45
P224	"	—		X	P224X01.5	1		X			BI	.45672
P229	"	—		X	P229X04.5	1		X			"	.45
P230	"	—		X	P230X01.5	1	X	X	X		HAND AUGER	.45671
P230	"	—		X	P230X03.5	1	X		X		" "	45675
P230	"	—		X	P230X04.0	1	X			X		4
P230	"	—		X	P230YD4.0	1			X		USE AS MATRIX SPIKE	
P230	"	—		X	P230MD4.0	1			X		USE AS MATRIX SPIKE	45678
P230	"	—		X	P230FD4.0	1			X			45
P210	"	—		X	P210X02.5	1	X		X	X		4563C
P210	"	—		X	P210YD2.0	1			X		USE AS MATRIX	45661
P210	"	—		X	P210MD2.0	1			X		USE AS MATRIX SPIKE	
P210	"	—		X	P210ED4.0	1			X			4
P210	"	—		X	P210X00.0	1			X		SURFACE	45
P230	"	—		X	P230X00.0	1			X		"	45

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/2/89	1615	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% DISCOUNT PAID
MIN. WORTS = $100
TAKE 10% OF SAMPLES
FOR [illegible]

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4065

RECEIVED

AUG 09 1989

Job # 3578-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

DAMES & MOORE

Client's Name DAMES & MOORE Phone 916/924-8698

Address 4500 TECH CENTER DRIVE STE 100

City, State, Zip SACRAMENTO CA. 95823

Client's or Representative's Signature Kevin J. Brown

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044

PROJECT NAME UPRR-SACTO.

SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cu Pb	8015 (Gas)	BTEX				REMARKS / LAB USE ONLY LAB NO.
MW-25	8/2/89	1350		X	MW25B10.0	1	V	V					B/I
		1400			MW25B15.0	1	V	V					"
		1420			MW25B20.0	1	V	V					B/I

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/3/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount on MV Client #1001 - Tank Cases from Sacto
for ~~BTEX~~ analysis
SEE ATTACHMENT

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707)763-8245 FAX: (707)763-8248

RECEIVED

AUG 09 1989

JOB # 3576-89

DAMES & MOORE

CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES AND MOORE Phone (916) 364-8697
Address 4300 TOWN CENTER BL. STE 110
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Chris Kinman

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 05173-022 PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) Chris Kinman - Tim Kelley

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	GOC/GC/MS, 418.1	As, Cd, Pb	8310	CAM METALS	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
P220	8/3/89	—		X	P220X00.0	1		X				SURFACE	
P221	"	—		X	P221X00.0	1		X				"	
P221	"	—		X	P221X01.5	1	X	X				HNU HIT	
P221	"	—		X	P221X03.5	1	X	X	X		X	" " STAINED, BRICK	
P221	"	—		X	P221X04.5	1	X	X	X		X	" " STAINED, BRICK	
21	"	—		X	P221X05.0	1	X	X				" " BI	
P221	"	—		X	P221X08.0	1	X	X				HNU I/O, BI (I/O = INCREMENTAL)	
P220	"	—		X	P220X02.0	1	X	X	X		X	HNU HIT, STAINED, BRICK	
P220	"	—		X	P220X04.5	1	X	X	X			HNU HIT, "	
P220	"	—		X	P220X05.0	1	X	X				" " BI	
P220	"	—		X	P220X07.0	1	X	X				" " BI	
P231	8/2/89	—		X	P231X00.0	1		X				SURFACE	
P231	"	—		X	P231X01.5	1	X	X			X	HNU HIT, UNDRUS BRICK	
P231	"	—		X	P231X04.0	1	X	X			X	" "	
P231	"	—		X	P231X04.5	1	X	X				" " BI	
P213	8/3/89	—		X	P213X00.0	1		X				SURFACE	
P219	"	—		X	P219X00.0	1		X				"	
P232	"	—		X	P232X00.0	1		X				"	
P234	"	—		X	P234X00.0	1		X				"	
P208	"	—		X	P208X00.0	1		X				"	
P209	"	—		X	P209X00.0	1		X				"	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/3/89	1600	Kat Dunlap
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.V.
QUOTE #1001.
TAKE CORE OF SAMPLE
FOR TURNAROUNDS

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED

AUG 09 1989

JOB # 3576-89

DA SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES AND MOORE Phone (415) 974-1912

Address 1300 Bay Center Dr. Ste. 100

City, State, Zip Walnut Creek, CA 94596

Client's or Representative's Signature

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022

PROJECT NAME UPRR - SACRAMENTO

SAMPLERS (Signature) Chris Donovan + Tim K. Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BOX(ES) SENT	DRUM(S) SENT	SOIL	CHEM. ANAL.	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
PZ08	8/7/89	—		X	PZ08X01.5	1	X		X	X		HAND AUG	
PZ08	"	—		X	PZ08Y01.5	1		X				USE AS MATRIX SPIKE (...	
PZ08	"	—		X	PZ08MD1.5	1		X				USE AS MATRIX SPIKE DUP.	
PZ08	"	—		X	PZ08FD1.5	1		X				HAND AUG	
PZ10	"	—		X	PZ10P02.0	1					X	SPEC. SAMPLE	
PZ08	"	—		X	PZ08X0GRAB	1	X		X			"TARRY" SUBSTANCE	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	8/8	16:00	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

30% DISCOUNT PER M.W.

RUSH 5 DAY

TAKE ALL FROM SAMPLE

PH 4 ALL ETC

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707)763-8245 FAX: (707)763-4068

EUREKA LABS

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name JAMES E MOORE Phone 364-3691

Address 1300 T ... CENTER DRIVE ... FT 100

City, State, Zip ...

Client's or Representative's Signature

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 0017-042-0617

PROJECT NAME UPRR

SAMPLERS (Signature)

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As T-O	REMARKS	LAB USE ONLY LAB NO.
	5/2/89	—			TKP#1	1	X	Nios H Method	
	7/26/89	—			UP890726-01	1	X	" "	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	General Remarks:
	8/3/89	1605		Regular Turnaround
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	

EUREKA LABS
381-7953

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916 364-8693
Address 9300 TELA CENTER DRIVE, STE 10C
City, State, Zip SACRAMENTO CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 044 | PROJECT NAME UPRR - SACTO.

SAMPLERS (Signature) Kevin A. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	15 Cd, Pb - ICP	8013 (GASOLINE)	418.1	8310 - PNA's			REMARKS	LAB USE ONLY LAB NO.
01	8/7/89	0730		X	T-11-72,000	1	✓	✓	✓	✓			TASK 11	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/7/89	1615	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name: DAMES AND MOORE Phone: (916) 364-8692
Address: 9300 TECH CENTER DR STE. 100
City, State, Zip: SACRAMENTO, CA 95826
Client's or Representative's Signature: Christopher Donovan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.: 00173-022
PROJECT NAME: UPRR - SACRAMENTO
SAMPLERS (Signature): Chris Donovan + Tim K. Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GAS)	418.1	8310	CAM METALS	AS, Cu, Pb	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
P209	5/7/94	—		X	P209X04.5	1		X	X		X		HNU Hit, Sump Trench	
P208	"	—		X	P208X02.0	1		X	X		X		" " "	
P208	"	—		X	P208X03.5	1		X	X		X		" " "	
P208	"	—		X	P208X04.0	1		X	X		X		" " "	
P205	"	—		X	P205X01.0	1	X	X			X		HNU Hit	
P205	"	—		X	P205X00.0	4					X		SURFACE	
P204	"	—		X	P204X00.0	1					X		"	
P204	"	—		X	P204X01.0	1	X	X			X		HNU Hit	
P204	"	—		X	P204X01.5	1	X	X			X		" " BI	
P207	5/7/94	—		X	P207X00.0	1					X		Surface Comp.	
P207	5/7/94	—		X	P207X01.5	1	X	X	X		X		HNU Hit	
P206	5/7/94	—		X	P206X00.0	1					X		Surface Comp.	
P207	5/7/94	—		X	P207X03.0	1					X		BI	
P206	5/7/94	—		X	P206X03.0	1					X		BI	
P219	"	—		X	P219X01.5	1					X		BI	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[illegible]	5/7/94	1110	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount for M.V
Quote # 1001 - Take Comp
Rush Samples for analysis

Job # 3616-89

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 364 8698
Address 9300 TECH CENTER DR STE 100
City, State, Zip SACTO, CA 95826
Client's or Representative's Signature J E Smith
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00122-044 PROJECT NAME UPRR ACTO
SAMPLERS (Signature) J E Smith

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Arsenic	Pb	REMARKS / LAB USE ONLY LAB NO.
P186	8/5	1115	X		P186X00.0		X		
P187		1235	X		P187X00.0		X		
P189		1215	X		P189X00.0		X	X	
P190		1340	X		P190X00.0		X	X	
P191		1430	X		P191X00.0		X	X	
P193	8/6	0825	X		P193X00.0	1	X		
P194		0930	X		P194X00.0		X		
P195		1045	X		P195X00.0		X		
P196		0755	X		P196X00.0		X		
P197		0720	X		P197X00.0		X		
P198		0645	X		P198X00.0		X		
P199		1405	X		P199X00.0		X		
P201		0900	X		P201X00.0		X		
P202		1145	X		P202X00.0		X		
P203		0930	X		P203X00.0		X		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
J E Smith	8/7/89	0600	Kevin Brown
Kevin Brown	8/7/89	1100	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
20% VOL DISCOUNT PER QUOTE # 1001

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 806024, Petaluma, CA. 94975-6024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO, CA
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044 | PROJECT NAME UPRR - SACTO.
SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cu Pb	8015 (GASOLINE)	418.1	8310	8240		REMARKS	LAB USE ONLY LAB NO.
MW-25	8/3/89	1300		X	MW25X00.0	1	✓	✓	✓	✓	✓		B RING	
		1302			MW25FD0.0	1	✓	✓						
		1305			MW25Y00.0	1	✓	✓					USE AS MATRIX SPIKE	
		1307			MW25MD0.0	1	✓	✓					USE " " " DUP.	
↓	↓	~~1315~~ 1314		↓	MW25B03.0	1	✓	✓					B/I	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin Brown	8/7/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per N.V.
Quote #1001 - Take cores from samples for analysis
SEE ATTACHMENT

LAB COPY

SACRAMENTO

OFFICE MEMORANDUM

ACTION	INFO	
To: GEORGE DUNSTON ACCULAB	JES - SAC.	File: UPRR - SAC.10.
		X-Ref: 00173-022-044
		Date: MON. 7 AUGUST 89
From: KEVIN J. BROWN - SAC. O&M		Reply Required By:
Subject: ADDITIONAL ANALYSIS REQUEST		

Reference(s): PLEASE INCLUDE ANALYSIS FOR PNA's BY 8310 ON SOIL SAMPLE I.D. P220X05.0 SUBMITTED ON ACCULAB CHAIN-OF-CUSTODY DATED 8/3/89 AND RELINQUISHED BY CHRIS LONERGAN

THANK YOU FOR YOUR CO-OPERATION

YOURS TRULY,
Kevin J. Brown

ACKNOWLEDGE RECIEPT REQUESTED:
COPY TO: DAMES & MOORE - SAC

Pat Bruckner

ACCULAB #1001 #3080-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

9

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916 364-8698
Address 3300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples. QUOTE # 1001

PROJ. NO. 0013-022-044 | PROJECT NAME UPRR - SACTO.

SAMPLERS (Signature) NICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Cd, Pb ✓	8015 (GAS & BTEX) ✓	418.1 ✓	REMARKS	LAB USE ONLY LAB NO.
MW 11	8/8/89	0810 0901		X	MW11 B01.5	1	✓				4
		0901			MW11 B 10.0	1	✓	✓		BTEX	4
		0952			MW11 B 15.0	1	✓	✓		"	4
		1015			MW11 B 20.0	1	✓	✓	✓	" , HIT	4
↓	↓	1025		↓	MW11 B 25.0	1	✓	✓	✓	" , HIT	4

RECEIVED
AUG 11 1989
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/9/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V. Quote # 1001
Take Lures out of samples for analysis

LAB COPY

ACCWAB JOB#3621-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES AND MOORE Phone (916) 924-2600
Address 1300 IRON POINT RD. STE 100
City, State, Zip SACRAMENTO CA 95720
Client's or Representative's Signature Christopher Lowman
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PO# 1001

PROJ. NO. 00173-022 PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) Chris Lowman - Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GAS) 8020	8015 (DIESEL)	8020	8240 (CAM METALS)	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
P218	8/7/89	—		X	P218X05.5	1	X		X			STAINED SOIL	46329-4
P218	"	—		X	P218X07.5	1	X	X	X			HNU NOT, BL	46329-5
P218	"	—		X	P218X01.0	1	X		X			" " "	46329-1
P214	8/7/89	—		X	P214X00.0	1			X			SURFACE	46329-2
P215	"	—		X	P215X00.0	1			X			"	46329-3
P214	"	—		X	P214X01.0	1	X		X			HNU NOT	46329-6
P214	"	—		X	P214X01.5	1	X	X		X		HNU NOT, BL	46329-7
P214	"	—		X	P214Y01.5	1			X			" " USE 45 MATRIX SPIKE	46329-8
P214	"	—		X	P214FD1.5	1			X			" " "	46329-9
P214	"	—		X	P214MD1.5	1			X			" " USE 45 MATRIX SPIKE DUP.	46329-10
P215	"	—		X	P215X01.5	1	X	X	X			HNU NOT STAINED	46329-11
P215	"	—		X	P215X03.0	1	X		X			" "	46329-12
P215	"	—		X	P215X04.5	1	X		X			" "	46329-13
P225	"	—		X	P225X00.0	1			X			SURFACE	46329-14
P225	"	—		X	P225X01.0	1			X			"	46329-15

RECEIVED
AUG 11 1989
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[illegible]	8/11/89	15:30	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% DISCOUNT PER M.V. QUOTE #1001. TAKE OUT OF SAMPLE [illegible]

Acculab job # 3631-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-7698
Address 1200 Tech Center Dr. Ste. 100
City, State, Zip Sacramento, Ca. 95826
Client's or Representative's Signature Chris Donegan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME UPRR-Sacramento
SAMPLERS (Signature) Chris Donegan + Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Oil & Grease	TPH (GAS) gas/BTX	As, Cu, Pb	CAM METALS	8310	PCB	REMARKS	LAB USE ONLY LAB NO.
26	7/9/89	—		X	P226X00.0	1		X					SURFACE COMP.	
P227	"	—		X	P227X00.0	1		X			X		" "	
P239	"	—		X	P239X00.0	1		X					" "	
P240	"	—		X	P240X00.0	1		X					" "	
P240	"	—		X	P240X01.5	1		X					BI	
A	"	—		X	P239X02.0	1		X					BI	
P226	"	—		X	P226X01.0	1		X					"	
P227	"	—		X	P227X01.0	1		X			X		"	
~~P252~~	~~"~~	~~—~~		~~X~~	~~P252X00.0~~	~~1~~		~~X~~					~~Surface~~	
P253	"	—		X	P253X00.0	1		X					Surface	
P206	8/1/89	—		X	P206X01.5	1		X					BI	
219	8/1/89	—		X	P219X06.0	1	X			X			BI	
P214	8/8/89	—		X	P214X03.5	1	X			X			BI	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	8/11/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.U.
QUOTE # 1001.
TAKE CARE OF SAMPLES FOR ANALYSIS

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
lox 808024, Petaluma, CA. 94975-8024
Te...phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name _____ Phone (415) 364-9612
Address 4300 Tech Center Dr. Ste 100
City, State, Zip Sacramento, CA.
Client's or Representative's Signature Chris Lowman, Tim Parker
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME
0173-002	UPRR - Sacramento

SAMPLERS (Signature): Chris Lowman, Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	8015	Asbestos	REMARKS	LAB USE ONLY LAB NO.
Chase 4					P243X01.0	1	X		BI	C6114
Soil Piles					P242X00.0	1	X			
Elec Cont.					P243X00.0	1	X			
Front of Elec					P242X02.0	1	X		BI	C6116
					P242X01.5	1		X		C6125
								X		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Chris Lowman	2/11/97	1620	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30 Day Disposal per M.U.
Quote Final.
Take out of State
Per Project

Acculab / DO# 3661-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 806024, Petaluma, CA. 94975-6024
one: (707) 763-5245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES AND MOORE Phone (916) 364-8678
Address 9300 TECH CENTER DR. STE. 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Christopher Lorraine - Tim Parker
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME URRR - SACTO
SAMPLERS (Signature) Chris Lorraine + Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	418.1	8015 (GAS)	As, Cu, Pb	8310	PCB's (8080)	CAM METALS	REMARKS	LAB USE ONLY LAB NO.
P252	8/9/89	—		X	P252X01.5	1	X		X		X			
P252	"	—		X	P252X02.0	1	X		X		X		BI	
P253	"	—		X	P253X01.0	1	X		X		X			
P253	"	—		X	P253X01.5	1	X		X		X		BI	
P252	8/10/89	—		X	P252X00.0	1			X				SURFACE COMP	
12	"	—		X	P242X00.02	1			X			X	"	
P243	"	—		X	P243X00-02	1			X			X	"	
P242	"	—		X	P242X01.0	1	X	X	X	X				
~~P242~~	~~"~~	~~—~~		~~X~~	~~P242X04.5~~	~~1~~								
P242	"	—		X	P242X02.0	1	X	X				X	BI, MAN NO	
P242	"	—		X	P242X04.0	1	X	X	X				BI "	
243	"	—		X	P243X01.0	1	X	X		X		X		
P243	"	—		X	P243Y01.0	1			X				USE AS MATRIX DUP.	
P243	"	—		X	P243FD1.0	1			X					
P243	"	—		X	P243MD1.0	1			X				USE AS MATRIX SPIKE DUP.	
P243	"	—		X	P243X02.0	1	X	X	X	X			BI, MAN INT	
P243	"	—		X	P243X03.0	1	X	X	X				BI "	
P243	"	—		X	P243X05.0	1	X	X	X				BI "	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[illegible]	8/10/89	1600	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.V.
QUOTE # 1001.
TAKE CORE OF SAMPLE FOR ANALYSIS

ACCULAB 100#3713-89

ACCULAB
Lakeville Highway, Petaluma, CA 94952
Box 806024, Petaluma, CA, 94975-6024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name JAMES & MOORE Phone (916) 364-9698
Address 9300 TECH. CENTER DR. STE. 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Chris Corrigan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 60173-022 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Chris Corrigan, Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	9015 (Gas) 8021 (TPH)	8015 (Ca, Pb, Cr, Ni)	8310 (PAH)	6010 (Antimony)	REMARKS / LAB USE ONLY LAB NO.
P245	8/10/99	—		X	P245X02.0	1	X	X			HNu Hit, STAINED
P245	"	—		X	P245X02.5	1	X	X	X		BI " " "
P245	"	—		X	P245X04.5	1	X	X			BI, DISCOLORED
P244	"	—		X	P244X01.5	1	X	X			HNu Hit
P244	"	—		X	P244X02.0	1	X	X	X		" " STAINED
P244	"	—		X	P244X02.5	1	X	X			" " BI DISCOLORED
P244	"	—		X	P244X04.0	1	X	X			" " BI, DISCOLORED
P250	8/11/99	—		X	P250X00.0	1	X	X			SURFACE Cont.
P250	"	—		X	P250X01.5	1	X	X			BI
P251	"	—		X	P251X00.0	1	X	X			SURFACE Cont.
P251	"	—		X	P251X01.5	1	X	X	X		BI STAINED
P251	"	—		X	P251X03.0	1	X	X	X		BI "
P251	"	—		X	P251X05.0	1	X	X			BI HNu Hit
P251	"	—		X	P251X07.5	1	X	X			BT HNu Hit
P249	8/11/99	—		X	P249X00.0	1	X		X	X	X SURFACE Cont.
P249	"	—		X	P249Y00.0	1	[illegible]	X			" " BG INTERFERENCE SPIKE
P249	"	—		X	P249FDC.0	1		X			" "
P249	"	—		X	P249IND0.0	1		X			" " DUP.
P249	"	—		X	P249X01.0	1		X		X	BI
P247	"	—		X	P247X02.0	1	X	X			BI
P247	"	—		X	P247X04.5	1	X	X			BI

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/14/99	[illegible]	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT - PER M.H.
QUOTE # 1001
TALC COPY OF SIGNATURE
FOR ANAL. TS

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-8698
Address 4500 Tech Center Dr. Ste. 100
City, State, Zip Sacramento, Ca 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 | PROJECT NAME UPRR - SACRAMENTO
SAMPLERS (Signature) Chris Lonergan, Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Zn, Ni + 8015 (Gas)	As, Cu, Pb	REMARKS	LAB USE ONLY LAB NO.
PZ44	9/11/99	—		X	PZ44X00.0	1	X	X	SURFACE COMP.	
PZ45	"	—		X	PZ45X00.0	1	X	X	" "	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	General Remarks:
Chris Lonergan	9/14/99	15:55	[illegible]	30% DISCOUNT PER M.V. QUOTE #1001. TAKE CORE OF SAMPLES FOR ANALYSIS.
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	

ACCULAB 100#3742-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-8698
Address 9300 Tech Center Dr. Ste 100
City, State, Zip Sacramento, Ca. 95826
Client's or Representative's Signature Christopher Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 | PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) Chris Lonergan, Tim Parker

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GAS) 418.1	16 Cd Pb	7 am METALS	8310	ASBESTOS	REMARKS / LAB USE ONLY LAB NO.
P232	8/14/89	—		X	P232X06.5	1	X	X		X	X	NNH HET, STAINED
P232	"	—		X	P232X07.5	1	X	X				BI
P232	"	—		X	P232X11.0	1	X	X				TD
P234	"	—		X	P234X06.0	1	X	X		X		NNH HET, STAINED
P234	"	—		X	P234X09.0	1	X	X				BI
P234	"	—		X	P234X14.0	1	X	X				TD
P248	8/15/89	—		X	P248X00.0	1		X				SURFACE COMP.
P248	"	—		X	P248X00.5	1	X	X				HNH HET
P248	"	—		X	P248X01.0	1	X	X				" " BI
P246	"	—		X	P246X00.0	1		X				SURFACE COMP.
P247	"	—		X	P247X00.0	1		X				" "
P246	"	—		X	P246X01.5	1	X	X		X		HI. NNH HET. STAINED
P246	"	—		X	P246X05.0	1	X	X				BI. " " SLIGHT STAIN
P246	"	—		X	P246X01.0	1	X	X		X	X	NNH HET, PETR. STAINING
P237	"	—		X	P237X00.0	1		X				SURFACE COMP.
P238		—		X	P238X00.0	1		X				" "
P238		—		X	P238X01.5	1	X		X	X		NNH HET
P238		—		X	P238X01.5	1		X				USE AS MATRIX SPIKE
P238		—		X	P238X01.5	1		X				NNH HET
P238		—		X	P238X01.5	1		X				USE AS MATRIX SPIKE DUP
P238		—		X	P238X03.0	1	X	X				ET.

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.N.
QUOTE # 1001
TAKE CORE OF SAMPLE FOR ANALYSIS

ACCULAB 1003# 3742-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4066

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Damea and Moore Phone (916) 364-9698
Address 9300 Tech Center Dr. Ste 100
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME UPRR - SACRAMENTO
SAMPLERS (Signature) Chris Lonergan, Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BOTS (GAS), 418.1	LIQ. Cd, Pb	CAM METALS	5310	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
P238	7/13/99	—		X	P238X08.0	1		X			X	BI, BRICK	
P237	"	—		X	P237X02.0	1	X	X			X	NNH NTT	
P237	"	—		X	P237X02.5	1	X	X				" " BI	
P237	"	—		X	P237X05.0	1	X	X				" " BI	
P246	"	—		X	P246X01.0	1	X	X			X	BI, BRICK, SAND, CK	
P246	"	—		X	P246X02.5	1	X	X				" " BI=CK	
P246	"	—		X	P246X05.0	1	X	X				" " CK	
P248	"	—		X	P248X00.5	1	X	X				" " CK	
P248	"	—		X	P248X01.0	1	X	X				" " CK	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Chris Lonergan	8/11/99	1605	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.V.
QUOTE = 1001.
TAKE CARE OF SAMPLE
FOR ANALYSIS

Acculab 10# 3774-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4066

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone (916) 924-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO CA 95826
Client's or Representative's Signature [signature]
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 044
PROJECT NAME UPRR - SALTO
SAMPLERS (Signature) NICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As (GFAA)	SO4 (GAS)	418.1	5520	REMARKS / LAB USE ONLY LAB NO.
13	8/15/89	0830		X	MW13B00.0	1	✓				
		0845			MW13B01.5	1	✓	✓	✓		B/I Hit
		0855			MW13B03.0	1	✓	✓	✓	✓	B/F Hit Stain
		0910			MW13B04.5	1	✓	✓	✓		
		0925			MW13B06.0	1	✓	✓	✓		
	↓	1420		↓	MW13X28.0	1	✓	✓	✓		

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AUG 21 1989
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/16/89	1600	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

ACCULAB ID #3773-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-9697
Address 1300 Tech Center Dr. Ste. 100
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples. QUOTE # 1001

PROJ. NO. 00173-022 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Chris Lonergan Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GAS) 418.1	As, Cu, Pb	CAM METALS	8310	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
P236	8/16/89	—		X	P236X02.5	1	X	X		X		BI, NNU HIT SATURATED	
P235	"	—		X	P235X02.5	1	X	X				NNU HIT	
P235	"	—		X	P235X03.0	1	X	X		X		BI, NNU HIT STAINED	
P235	"	—		X	P235X05.0	1	X	X				NNU HIT BI	
P235	"	—		X	P235X00.0	1		X				SURFACE Comp.	
P236	"	—		X	P236X00.0	1		X				" "	
P146	"	—		X	P146X01.0	1		X				BI	
P147	"	—		X	P147X00.0	1		X				SURFACE Comp	
P146	"	—		X	P146X00.0	1		X				" "	
P147	"	—		X	P147X01.0	1		X			X	BI, BRICKS	
P148	"	—		X	P148X00.0	1		X				SURFACE Comp	
P149	"	—		X	P149X00.0	1		X				" "	
P148	"	—		X	P148X00.3	1		X				BI	

RECEIVED
AUG 31 1989
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/16/89	1555	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
20% DISCOUNT PER M.V.
QUOTE # 1001.
TAKE CARE OF SAMPLES FOR ANALYSIS

Job 3789-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P. Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Damon et al. Mare Phone (916) 364-2693
Address 9300 Tech Center Dr.
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME UPRR - SACRAMENTO
SAMPLERS (Signature) Chris Lonergan, Tim Puchel

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BOS (Gas) TPH	As, Cu, Pb	Cam 17 Metals	8310	Asbestos	REMARKS / LAB USE ONLY LAB NO.
P149	8/17/89	—		X	P149X04.0	1		X				BI
P150	"	—		X	P150X00.0	1	X	X	X	X		Surface Comp. (No As, Cu, Pb, Cr)
P150	"	—		X	P150Y00.0	1		X				" " Use as material spec.
P150	"	—		X	P150MD0.0 (SP)	1		X				" " Use as material spec.
P150	"	—		X	P150FD0.0	1		X				" "
50	"	—		X	P150X07.5	1		X				BI
P151	"	—		X	P151X00.0	1		X				Surface Comp.
P152	"	—		X	P152X00.0	1		X				" "
P152	"	—		X	P152X01.5	1	X	X		X		Black clay material
P152	"	—		X	P152X03.0	1					X	Limited flaky material
MW14	"	—		X	MW14X06.0	1	X					Confirmation
MW14	"	—		X	MW14X11.0	1	X					"
P152	"	—		X	P152X05.0	1		X				BI
P151	"	—		X	P151X06.0	1	X	X				Slight odor

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Chris Lonergan	8/17/89	1600	Kat Burke
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per M.V. Quote
#1001.
Take care of samples
for analysis.

SACRAMENTO

OFFICE MEMORANDUM

ACTION	INFO	
To: GEORGE DUNSTON	JES	File: UPRR - SACTO.
ACCULAB	AK	
	GWN	
		X-Ref: 00173-022-044
		Date: TUES. 22 AUGUST 89

From KEVIN J. BROWN - SAC Reply Required By:

Subject: REQUEST FOR ADDITIONAL ANALYSIS

Reference(s): PLEASE RUN THE FOLLOWING ADDITIONAL ANALYSIS ON SOIL SAMPLES SUBMITTED ON ACCULAB CHAIN OF CUSTODY DATED 8/21/89 AND RELINQUISHED BY CHRIS LONERGAN:

SAMPLE I.D.	REQUESTED ADDITIONAL ANALYSIS OR CHANGES
P182X00.0	- Asbestos by PLM
P183X00.0	— " " "
P183X02.5	— " " "
P179Y00.0	— Please use as Matrix Spike
P179MD0.0	— " " " " " Duplicate
P153X00.0	-- Please eliminate 8015, 418.1 and 8310 Run for CAM Metals and Asbestos only
P153X03.0	— Replace 8270 w/ 8310 — add 8240
P154X00.0	— Eliminate 8015, 418.1, and 8310 Run for CAM Metals and Asbestos only
P154X01.5	— Replace 8270 w/ 8310 — add 8240
P162X00.0	— Eliminate 8015, 418.1 and 8310 Run for CAM Metals and Asbestos only
P162X00.5	— Replace 8270 w/ 8310 — add 8240
P163X00.0	— Eliminate 8015, 418.1, and 8310 Run for CAM Metals and Asbestos only
P163X00.5	Replace 8270 w/ 8310

RECEIVED
AUG 28 1989
DAMES & MOORE

Thank-you for your Co-operation

Kevin J. Brown

PLEASE ACKNOWLEDGE RECIEPT:

COPY TO DAMES & MOORE SACTO

Pat Buske 8/25/89

Dames & Moore

ACCULAB 10 OF 3883-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 806024, Petaluma, CA, 94975-6024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (415) 364-1621
Address 1330 Tech. Center Dr. Ste. 10
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Dorman
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 0073-022 | PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) Chris Dorman

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	SOILS (GAS) 8015	BTEX 8020	CAM 17 MC PAHS 8270	8315 PAHS	8310 PAHS	TPH-D	REMARKS	LAB USE ONLY LAB NO.
P162	8/21/96	—		X	P162X00.0	1	NO	X	X	X	X	X	SURFACE Comp.	40
P162	"	—		X	P162X00.5	1	X	X	X	X	X	NO	BT	41
P163	"	—		X	P163X00.0	1	NO	X	X	X	X	X	Surface Comp	43
P163	"	—		X	P163X00.5	1	X	X	X	X	X	NO	BT	45
P153	"	—		X	P153X00.0	1	NO	X	X	X	X	X	SURFACE Comp.	46
P153	"	—		X	P153X03.0	1	X	X	X	X	X	NO	BT	48
P154	"	—		X	P154X00.0	1	NO	X	X	X	X	X	SURFACE Comp	49
P154	"	—		X	P154X01.5	1	X	X	X	X	X	NO	BT	50

3 ICE CHESTS

→ NO AS OR PCB'S
8310 ONLY FOR
SAMPLES
PLEASE
CALL

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/21/96	1605	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.V.
EMAIL
TAKE CARE OF SAMPLES
FAX RESULTS

ACCULAB 1000#3883-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 806024, Petaluma, CA, 94975-6024
Phone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Damas and Pirme Phone (916) 924-2149
Address 1200 Tech Center Dr. Ste. 100
City, State, Zip Sacramento, CA 95834
Client's or Representative's Signature Printed Name
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173.027 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Chris Jamieson, Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GAS) 4211	As, Cu, Pb 6010	8310 (PAH only)	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
P155	8/17	—		X	P155X00.5	1		X			BI	
P-155	8/17	—		X	P155X00.0	1		X			Surface Comp.	
P-185	8/18/89	—		X	P185X00.0	1		X			" "	
P184	"	—		X	P184X00.0	1		X			" "	
P185	"	—		X	P185X02.0	1		X			BI	
P184	"	—		X	P184X01.5	1		X			BI	
P183	"	—		X	P183X00.0	1		X		X	Surface Comp	
P183	"	—		X	P183X02.5	1		X		X	BI	
P181	"	—		X	P181X00.0	1		X			Surface Comp	
P181	"	—		X	P181X02.0	1		X			BI	
P182	"	—		X	P182X00.0	1		X		X	Surface Comp.	
P182	"	—		X	P182X03.0	1		X			BI	
P180	"	—		X	P180X00.0	1		X			Surface Comp	4
P179	"	—		X	P179X00.0	1	X		X	X		4280
P179	"	—		X	P179Y00.0	1		X			USE AS MATRIX SPIKE SD	
P179	"	—		X	P179FD0.0	1		X				4FC77
P179	"	—		X	P179MD0.0	1		X			USE AS MATRIX SPIKE DUPLICAT	
P179	"	—		X	P179X02.0	1	X	X	X		BI DARK COLOR	4CC71
P183	"	—		X	P183X15.5	1		X			SURFACE CL	4CC72

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	8/18/89	1500	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DIFFERENT PER P.M.
QUOTE = 1001
TAKE CARE OF SAMPLES
ANALYSIS

3927-89
Acculab AC Job #

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES - MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 044
PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) CHRIS LONERGAN TIM PARKER

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Asbestos - PLM	9015 (Gas) + 418.1	8310	8240	CAM METALS As Cr Pb	REMARKS	LAB USE ONLY LAB NO.
P149	8/17/89			X	P149X03.5	1					✓	B/I	
P185	8/18/89			X	P185X01.5	1	✓					White Material	
P147	8/16/89			X	P147X00.5	1	✓					Bricks	
P182	8/18/89			X	P182X02.5	1	✓					White Material	
P163	8/21/89			X	P163X02.5	1			✓			B/I - Pit Bottom	
P153	8/21/89		D	X	P153X02.5	1	✓	✓	✓	✓		Fill	
P154	8/21/89			X	P154X01.0	1	✓	✓	✓	✓		Fill	
MW15	8/21/89			X	MW15X15.0	1		✓	✓	✓	✓	B/I - Hit	
				X	MW15FD15.0	1					✓	Use as Matrix Spike Dupl.	
				X	MW15Y15.0	1					✓	Use as Matrix Spike	
				X	MW15X00.0	1					✓	Surface	
				X	MW15B03.0	1		✓			✓	B/I - Hit	
				X	MW15B09.0	1		✓			✓	B/I - Hit	
				X	MW15B25.0	1		✓			✓	B/I - Hit	

22 Soils

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/21/89	1600	Pat Burke
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per M.V. Quote # 1001 — Take Cores of samples for analysis
Std. Turnaround

3927-89
Acculab Job #

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (415) 364-2111
Address 4300 Tech Center Dr. Ste. 105
City, State, Zip Sacramento, Ca. 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-122 PROJECT NAME UPRR - Saco
SAMPLERS (Signature) Chris Lonergan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GAS) 418.1	EX. Cu, Pb, Zn	Nam metals	8310	REMARKS	LAB USE ONLY LAB NO.
P156	8/22/89	—		X	P156X00.0	1		X				Surface Comp.
P157	"	—		X	P157X00.0	1		X				" "
P158	"	—		X	P158X00.0	1		X				" "
P159	"	—		X	P159X00.0	1		X				" "
P156	"	—		X	P156X00.5	1		X				BT
P157	"	—		X	P157X00.5	1		X				"
P158	"	—		X	P158X00.5	1		X				"
P159	"	—		X	P159X01.5	1		X				"

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
C. Lonergan	8/22/89	1600	Kat Burdge
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per M.V. # 1001
Take care of samples for analysis.

LAB COPY

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

Acculab Sol # 373 SG

RECEIVED
AUG 28 1989
DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-2672
Address 9320 Tech Center Dr. Ste. 1
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Sorensen
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. CC173-022 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Chris Sorensen

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	ROI - (GAS) 8021	Arom. (Aqua) 602	(Arom. Halo.) 8010	8310	418.1 (ONLY)	REMARKS / LAB USE ONLY LAB NO.
P160	8/27/89	—		X	P160X00.0	1		X				SURFACE COMP. 44952
P160	"	—		X	P160X01.0	1		X				BI 44954
P171	"	—		X	P171X00.0	1	X		X	X		SURFACE COMP. 44955
P171	"	—		X	P171Y00.0	1		X				USE AS MATRIX SPIKE 44956
P171	"	—		X	P171FD0.0	1		X				44957
P171	"	—		X	P171MD0.0	1		X				DUP. USE AS MATRIX SPIKE DUP.
P171	"	—		X	P171X01.0	1		X		X	X	BI

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8-27-89	1615	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per M.V. Quote # 1001.
Take care of sample for analysis. Please (1).

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA 94975-8024
Tel: (707) 763-8248 FAX: (707) 763-4065

ACCulab 506 X
3946-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name: DAMES & MOORE Phone: 916/364-3095
Address: 9600 TECH CENTER DRIVE STE. 100
City, State, Zip: SACRAMENTO CA. 95826
Client's or Representative's Signature: Kevin J. Brown
(signature authorizes the work and terms listed below)

Quote # 1001

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.: 00173-022-044
PROJECT NAME: UPRR - SACTO.
SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cr Pb	8015 (GAS)	418.1	8240	8310	REMARKS	LAB USE ONLY LAB NO.
MW12	8/23/89	0810		X	MW12B00.0	1	✓	✓	✓	✓		Surface-Hit	
		0840			MW12B03.0	1	✓	✓	✓	✓	✓	Hit, Odor	
		0855			MW12B06.0	1	✓	✓	✓	✓	✓	Hit Odor B/I	
		0910			MW12B10.0	1	✓	✓	✓	✓	✓	" " "	
		1040			MW12B15.0	1	✓	✓	✓	✓		" — "	
		1255			MW12B30.0	1	✓	✓	✓	✓		" — "	
					12 Soil								
					NOT [illegible] Client [illegible] for shipping								

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	8/24/89	1600	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per M.V. Quote # 1001
Take Cr+Pb from soil for analysis

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
none: (707) 763-8245 FAX: (707) 763-4066

ACculab Job # 3946-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-9692
Address 9300 Tech Center Dr. Ste. 100
City, State, Zip Sacramento CA 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

Quote # 1001

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME
00173-022	VPRR - SACTO

SAMPLERS (Signature): Chris Lonergan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TOC (605) 9071	Ds, Cu, Pb	CAM METALS	8310	REMARKS	LAB USE ONLY LAB NO.
P174	8/24/89	—		X	P174X00.0	1		X				SURFACE COMP.
P174	"	—		X	P174X03.0	1		X				BI
P173	"	—		X	P173X00.0	1		X				SURFACE COMP.
P173	"	—		X	P173X02.0	1		X				BI
P172	"	—		X	P172X00.0	1		X				SURFACE COMP.
P172	"	—		X	P172X02.0	1		X				BI

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Chris Lonergan	8/24/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT PER M.V. QUOTE # 1001
TAKE CORE OF SAMPLE FOR ANALYSIS.

Quote #1001
Job#401289

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 924-8697
Address 9300 Tech Center Dr. Ste. 100
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Donegan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Chris Donegan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Cr, Pb (ABN Metals)	8310	Asbestos	REMARKS / LAB USE ONLY LAB NO.
PDN8	8/25/99	—		X	PDN8X01.5	1		X		Per D.H.S. - Out of Scope
P-DN8	"	—		X	PDN8X03.0	1		X		" " - " "
P161	8/27/99	—		X	P161X00.0	1	X			Surface Comp
P164	"	—		X	P164X00.0	1	X			" "
P161	"	—		X	P161X02.0	1	X			BI
P164	"	—		X	P164X02.0	1	X	X	X	Creosote "like" odor
PDN8					PDN8X00.0					
P161					P161X02.0					

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	8/28/99	1405	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per
M. V. Quote # 1001.

Kev

ACCUlab 1OG# 4031-89

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 361-1698
Address 1000 Tech Center Dr. Ste 170
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Chris Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME
00173-022	UPRR - Sacto

SAMPLERS (Signature): Christopher Lonergan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH as Diesel	Lead (Pb)	BTEX (EPA 8020)	Oil & Grease (5520 E&F)	Asbestos	REMARKS	LAB USE ONLY LAB NO.
P168	1/29/99	—		X	P168X00.0	1	X					SURFACE COMP.	
P168	"	—		X	P168X03.0	1	X					BI	
P165	"	—		X	P165X00.0	1	X					SURFACE Comp.	
P165	"	—		X	P165X06.0	1	X					BI	
P169	"	—		X	P169X00.0	1	X					SURFACE Comp.	
P169	"	—		X	P169X06-0	1	X					BI	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Chris Lonergan	1/29/99	15:30	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 50% Discount per M.N.
QUOTE # 1001.
Turn around time ASAP.

LAB COPY

ACCULAB 100# 4030-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P. Box 806024, Petaluma, CA, 94975-8024
Phone: (707)763-8245 FAX: (707)763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-4015
Address 9360 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO CA. 95826
Client's or Representative's Signature Kevin Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-C46 | PROJECT NAME UPRR – SACTO.

SAMPLERS (Signature) RICK MCKEEN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	A Cu Pb	SD	8015 (GAS)	HS	REMARKS	LAB USE ONLY LAB NO.
A-23	8/29/89			X	MW23B00.0	1	✓	✓	✓	✓		[illegible]
					~~MW23B04.5~~	1	HSB					
					MW23B04.5	1	✓	✓	✓	✓	BI	[illegible]
					MW23B10.0	1	✓	✓	✓	✓		[illegible]
					MW23B15.0	1	✓	✓	✓	✓		[illegible]
	↓			↓	MW23B20.0	1	✓	✓	✓	✓	↓	[illegible]

ACCULAB JOB # 4050-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames and Moore Phone (916) 364-8698
Address 1300 Tech Center Dr. Ste. 100
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Christopher Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

Quote # 109

PROJ. NO. 00173-022 PROJECT NAME UPRR - SACRAMENTO
SAMPLERS (Signature) Christopher Lonergan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Cu, Pb	CAM METALS	8015 (GAS) 418.1	8310	ASBESTOS 9240	REMARKS	LAB USE ONLY LAB NO.
P166	8/29/89	—		X	P166X00.0	1	X				X	SURFACE COMP.	
P166	"	—		X	P166X08.0	1	X				X	BI, BRICK	
P167	"	—		X	P167X00.0	1		X	X	X		SURFACE COMP.	
P167	"	—		X	P167Y00.0	1	X					" " USE 2 STAINLESS STEEL SPOONS FOR MATRIX SAMPLE.	
P167	"	—		X	P167FD0.0	1	X					" "	
P167	"	—		X	P167MD0.0	1	X					" BI SPIKE DUP. USE MATRIX SPIKE DUP.	
P167	"	—		X	P167X06.0	1	X					BI	
P170	"	—		X	P170X00.0	1	X					SURFACE COMP.	
P170	"	—		X	P170X07.0	1	X					BI	
P227	"	—		X	P227X03.5	1	X					BI	
MW24	8/29/89	—		X	MW24X04.0	1	X		X	X	X	STAIN, ODOR	
MW24	8/29/89	—		X	MW24X41.0	1	X		X	X	X	CLAY UNIT	
					12 Samples								
					Returned Cooler								

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[illegible]	8/30/89	1500	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount per
M.V. Quote # 1001
Take care of samples
for analysis.

LAB COPY

ACCUTEST #4090-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 806024, Petaluma, CA, 94975-6024
Phone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8615
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044
PROJECT NAME UPRR - SALTO
SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cd Pb	418.1	8015 (GAS)	8240	8310	CAM's METALS	REMARKS	LAB USE ONLY LAB NO.
-21	8/30/89			X	MW21 B00.0	1	✓	✓						
					MW21 B03.0	1	✓	✓					B/I	
					MW21 B10.0	1	✓	✓					11	
	8/31/89				MW21 X15.0	1	✓	✓	✓	✓	✓	✓	11	
					MW21 FD15.0	1	✓		Matrix Spk				USE AS MATRIX SPIKE DUP.	
					MW21 Y15.0	1	✓						USE AS MATRIX SPIKE	
					MW21 B20.0	1	✓	✓						
P206														

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin Brown	8/31/89	1600	Kat Burke
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% DISCOUNT AS PER M.V.
QUOTE # 1001
TAKE ALIQUOT OF SAMPLES FOR ANALYSIS

LAB COPY

CALLAB-049094

Enseco, Inc. - Cal Lab Analytical
2544 Industrial Blvd.
West Sacramento, California 95691
(916) 372-1393

Date Received : 06 SEP 89 17:00

Mr. KEVIN J. BROWN
Dames & Moore
9300 Tech Center Dr.
Suite 100
Sacramento, California 95826

(916) 364-8698

Project ID,
EPA Case, RMA Lot : DAMCA03 UPRR-Sacramento 9/6/89 for Cr6
P.O. Number : 0173-022-044
Delivered By :
Storage Location : R15
Logged in by : SFISCHETTE

1 aqueous sample received in 250ml poly(1) under COC. Delivered OTC.

Sample ID	Enseco ID	Client's label info	Date/Time Samp.	Containers
049094-0001-SA	118504	MW-11	06 SEP 89 15:30	1-250ml poly

RECEIVED
SEP 11 1989
DAMES & MOORE

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

Client Manager: Beth Kelly

JOB NO. _____

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility _____

Address _____

_____

Telephone ( ) _____

COLLECTOR INFORMATION

Collected by _____

Address _____

_____

Telephone ( ) _____

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME

Suspected Waste Constituents _____

_____

Field Conditions/Remarks _____

_____

SAMPLE ALLOCATION

Name _____

Address _____

_____

Telephone ( ) _____

___ sample received intact

___ sample received damaged or missing (describe on back)

_____ _____
(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1.					
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

ACCULAB 100#4010-89

(Reported as 89-4011)

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
phone: (707) 763-5248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698

Address 9300 TECH CENTER DRIVE STE. 100

City, State, Zip SACRAMENTO CA 95826

Client's or Representative's Signature Kevin A. Brown

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00193-022-044

PROJECT NAME UPRR - SACTO.

SAMPLERS (Signature) Kevin A. Brown - Rick Morea, Tim Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (GASOLINE)	418.1	8240	8310	CAM 5	ASBESTOS	REMARKS	LAB USE ONLY LAB NO.
1	8/23/89			X	P171X00.5	1						✓	Fine Bricks	
MW16	8/24/89			X	MW16X55.0	1	✓	✓	✓	✓	✓		Basil Sand	
↓	↓			X	MW16X56.0	1	✓	✓	✓	✓	✓		Clay Unit	
MW12	8/25/89			X	MW12B68.5	1	✓	✓	✓	✓	✓		Clay Unit	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin A. Brown			
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

30% Discount as in M.N.

Code = 1001

P.O. # from Dames & Moore

For quote

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
box 806024, Petaluma, CA, 94975-6024
Telephone: (707) 763-5245 FAX: (707) 763-4065

acculab job # 4182-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (916) 364-8618
Address 4300 Fair Center Dr. Suite 100
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Kevin D. Braun
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 0173-022-044 PROJECT NAME UPRR Sacto.
SAMPLERS (Signature)

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH	BTEX	ARSENIC	METALS	VOLATILES	REMARKS	LAB USE ONLY LAB NO.
[illegible]					[illegible]	[illegible]							
MW11	9/6	[illegible]			MW-11	[illegible]	X	X	X	X	[illegible]	METALS ALSO	
		↑				5 KEY							
		15:30											
TB-1	9/6	0730			TB-1	1	X						

RECEIVED
SEP 11 1989
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[illegible]	9/6/89	16:30	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
MW-11 #1 [illegible]

Alcal Sol # 4/186-6.1

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (415) 364-8600
Address 1550 Tiburon Blvd Ste 135
City, State, Zip Belvedere, CA 94920
Client's or Representative's Signature Kevin A. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00773- PROJECT NAME Upper Soto

SAMPLERS (Signature) Lynne Olson

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH (Gas)	BTEX	TPH (Diesel)	Oil & Grease	Lead	REMARKS	LAB USE ONLY LAB NO.
MW15	7/6/89	1420			MW-15	5	X	X	X	X	X		
MW16	7/6/89	1115			MW-16	5	X	X	X	X	X		
MW-22	7/6/89	1500			MW-22	5	X	X	X	X	X		
TC-2	7/6/89	1600			TC-2	1	X						
FB-2	7/6/89	1115			FB-2	2	X	X					
P206	8/3/89	—			P206X030	1					X	Soil —	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	7/7/89	1600	Kat Bruske
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Please return per M.W. quote #1001

ACCULAB
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Box 808024, Petaluma, CA, 94975-8024
Telephone: (707)763-5245 FAX: (707)763-4065

41716-29

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SEP 11 1989
DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO, CA 95826
Phone 916/364-8608
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-122 C44
PROJECT NAME UPER - SAC
SAMPLERS (Signature) Rick Moren

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	CAM METALS	8015(GAS)+418.1	8240	8310			REMARKS	LAB USE ONLY LAB NO.
22	9/6/89	—		X	MW22B51.0	1	X	X	X	X			Clay Unit	[illegible]

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	9/7/89	1600	Pat Buske
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per M.V. Quote #1001
Take Core out of Sample for Analysis

ACCULAB Job# 4269-89

1700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-5248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (916) 364-8698
Address 1363 Tech Center Dr. Ste 100
City, State, Zip Sacramento, CA 95826

Client's or Representative's Signature _____
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-544 PROJECT NAME UPRR Sacto

SAMPLERS (Signature) Anne Olson

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH	BTEX	VOCs (EPA 8010)	CHLORINATED HC's (EPA 8010)	EPA 8.1	REMARKS / LAB USE ONLY LAB NO.
MW24	9/7/89	0840			MW-24	5	X	X	X	X	X	
MW23		1100			MW-23	5	X	X	X	X	X	
MW21		1315			MW-21	5	X	X	X	X	X	
MW29		0930			MW-29	5	X	X	X	X	X	
FB3					FB-3	2	X	X				
TC3					TC-3	1	X					
TC-4	9/11/89	0735			TC-4	1	X					
FB-4		0850			FB-4	2	X	X				
MW-22		1315			MW-22	5	X	X	X	X	X	
MW30		1415			MW-30	5	X	X	X	X	X	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	9/11/89	1600	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 25% discount per M.V. quote #1001

ACCULAB JOB# 4270-89

ACCULAB
[illegible] Lakeville Highway, Petaluma, CA 94952
[illegible] 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 364-8698
Address ~~1500 TECH CENTER DRIVE STE. 100~~ SACRAMENTO, CA. 95823
City, State, Zip
Client's or Representative's Signature
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJECT NO. ~~0879-022-~~ 041 PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) NICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015 (Gas)	8015 (Diesel)	418.1	REMARKS / LAB USE ONLY LAB NO.
		~~1130~~ 1135								
-19	9/7/81	~~1120~~		X	MW19B00.0	1	✓	✓	✓	
		~~1135~~ 1145		X	MW19B01.5	1	✓	✓	✓	B/E
		~~1150~~ 1200		X	MW19B10.0	1	✓	✓	✓	
		1115		X	MW19B15.0	1	✓	✓	✓	
↓	↓	1125		X	MW19B20.0	1	✓	✓	✓	

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

ACCULAB 100# 4381-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Kevin A Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

QUOTE #1601

PROJ. NO. 00173-022-044 | PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	CAM METALS	8310	8240	8015 (GAS)	418.1		REMARKS	LAB USE ONLY LAB NO.
MW-20	9/11/89			X	MW20B57.5	1	✓	✓	✓	✓	✓		Clay Unit	

ACCULABS ENVIRONMENTAL SERVICES
Lakeville Highway, Petaluma, CA 94952
or 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (916) 364-8098
Address 9300 Tech Center Dr. Ste 100
City, State, Zip Sacramento, CA 95826

Client's or Representative's Signature _____
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

Acculabs job # 4280-89

PROJ. NO.	PROJECT NAME
00173-122-044	UPRR Sacto

SAMPLERS (Signature): Anne Olson

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	1,2 DCA	1,2 DCE	BTEX & Gas	TPH mod. Gas	Oil & Grease	REMARKS	LAB USE ONLY LAB NO.
MW26	9/12/91				MW-26	5	X	X	X	X	X		
MW31	"				MW-31	5	X	X	X	X	X		
MW12	"				MW-12	5	X	X	X	X	X		
MW25	9/11/91				MW-25	5	X	X	X	X	X		
TB5	9/12				TB-5	1	X						
FB5	9/12				FB-5	2	X	X					

4 + 1 Ultra Scientific bottles / 4 + 1 Kemp. Ultra-Scientific / Kemp.

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	9/16/91	1600	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount for ~~[illegible]~~
U.V. quote #1021

ACCULAB #43174-89

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-5245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (415) 364-8677
Address 1550 Tech Center Dr #D
City, State, Zip Sacramento CA 95834
Client's or Representative's Signature Kevin A. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 20173-022-044 PROJECT NAME (IPRR Study)
SAMPLERS (Signature) Anne Olson

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX	TPH-G	TPH-D (GAS)	CAM METALS	LUFT	REMARKS	LAB USE ONLY LAB NO.
	9/13/89				MW-14	5	X	X	X	X	X		
	89				MW-32	5	X	X	X	X	X		
					MW-15	5	X	X	X	X	X	X	
					FB-6	2	X	X					
					TC-6	1	X						

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DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Anne Olson	9/13/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

1 ACCULAB 100114318-E

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707)763-8248 FAX: (707)763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916|364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO CA. 95826
Client's or Representative's Signature Kristin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044 | PROJECT NAME UPRR - SALTO.

SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As w/ Pb	CAM's	8015(GES)+418.1	8240	8310	REMARKS	LAB USE ONLY LAB NO.
MW-17	9/12/89	0745		X	MW17B00.0	1	✓						
		0755			MW17B03.0	1	✓						
		0845			MW17B07.0	1	✓					BI	
MW-18	9/13/89	1514		X	MW18B57.5	1		✓	✓	✓	✓		

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DAMES & MOORE

45013

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kristin J. Brown	9/13/89	1600	

General Remarks:
30% DISCOUNT AS PER M.V.
QUOTE # 1001
TAKE CORES OUT OF SAMPLES
FOR ANALYSIS

LAB COPY

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
none: (707) 763-8245 FAX: (707) 763-4068

Acculab Job # 4320-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (916) 364-8095
Address 1504 Tyler Foote Rd Ste 103
City, State, Zip Auburn, CA 95603
Client's or Representative's Signature Anne Olson
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 2017-12-044 PROJECT NAME UPRR Sidetrack

SAMPLERS (Signature) Anne Olson

STA. NO.	DATE 9/14/89	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX	TPHd	8010 CHLORINATED	CAM metals	Zn & Ni	REMARKS	LAB USE ONLY LAB NO.
		1145			MW1-1	5	X	X	X	X	X		
		1505			MW20	5	X	X	X	X	X		
	↓				FB-7	2	X	X					
	↓				TC-1	1	X						

RECEIVED
SEP 21 1989
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Anne Olson	9/14/89	1600	[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
			[illegible]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount per MV.
Note #1021

LAB COPY

ACCULAB | 00# 4319-89

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
Box 606024, Petaluma, CA, 94975-6024
Phone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES AND MOORE Phone (916) 364-8698
Address 9300 TECH CENTER DR. STE. 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Christopher Lorentzen
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME UPRR-SACRAMENTO
SAMPLERS (Signature) Christopher Lorentzen

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	G310	8015 (GAS)	418.1	8240			REMARKS / LAB USE ONLY LAB NO.
T12A	9/14/89	—		X	T12AX06.0	1	X	X	X	X			VISUALLY STAINED
T12B	"	—		X	T12BX06.0	1	X	X	X	X			" "

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SEP 21 1989
DAMES & MOORE

8240 added by AT 9/15/89 OA per Chris Lorentzen

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
C. Lorentzen	9/14/89	1545	Bill Davis
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% Discount per M.V. Quote # 1001
Take care of samples for analysis.

LAB COPY

ACCULAB
[illegible] Lakeville Highway, Petaluma, CA 94952
or 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

AC Culab
Job # 4388-89

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone (916) 364-8698
Address 1300 Tech Center Ste
City, State, Zip Sacramento, CA 95824
Client's or Representative's Signature Anne Olson
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

Purgeable

PROJ. NO.	PROJECT NAME					NO. OF CONTAINERS	1,4 DCB	1,4 DCB	8015	CAM mPAHs	8240		REMARKS	LAB USE ONLY LAB NO.
00173-022-04	LIPRR Sacto.													
SAMPLERS (Signature) Anne Olson														
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION									
MW-27	9/15/89				MW-27	5	X	X	X	X	X			
MW-7	"				MW-7	5	X	X	X	X	X			
MW-33	"				MW-33	5	X	X	X	X	X			
FB-8	"				FB-8	2	X	X						
TC 8	"				TC-8	1	X							
					3 liter Plastic									
					3 liter amber									
					21 VOA S									

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Anne Olson	9/18/89	1600	Pat Brunelle
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount
per A.I.V.
quote #1001

LAB COPY

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

ACC lab Job #
4457-89

RECEIVED
SEP 25 1989

SAMPLE CHAIN OF CUSTODY / WORK ORDER

DAMES & MOORE

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME
00173-022-044	UPRR-SACTO.

SAMPLERS (Signature): ANNE OLSON

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601	602	418.1	8015 (GAS)	CAM METALS	REMARKS	LAB USE ONLY LAB NO.
TC-9	9/20/89	0730		X	TC-9	1	✓						
FB-9		0800			FB-9	2	✓	✓	~~✓~~	~~✓~~	~~✓~~	KJB	
MW-2		1050			MW-2	5	✓	✓	✓	✓	✓		
MW-3		1315			MW-3	5	✓	✓	✓	✓	✓		
MW-4	↓	1520		↓	MW-4	5	✓	✓	✓	✓	✓		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	9/21/89	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per M.V. Quote # 1001

LAB COPY

ACCULAB ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

Actual Job # 4476 : 87
Reported as 89-4477

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACTO CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-02-044 PROJECT NAME UPRR - SACTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601	602	8015 (GAS)	418.1	CAM METALS	REMARKS	LAB USE ONLY LAB NO.
MW-8	9/20/89	1655		X	MW-8	5	✓	✓	✓	✓	✓		
MW-35	↓	1740		X	MW-35	5	✓	✓	✓	✓	✓		
TC-10	9/21/89	0820		X	TC-10	1	✓						
FB-10		0950		X	FB-10	2	✓	✓					
MW-18		1030		X	MW-18	5	✓	✓	✓	✓	✓		
MW-17	↓	1515		X	MW-17	5	✓	✓	✓	✓	✓		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	9/21/89	1600	Tod Brunkle
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% Discount as per M.V. Quote # 1001

CALLAB-049094

RECEIVED

SEP 2 7 1989

DAMES & MOORE

Enseco, Inc. - Cal Lab Analytical
2544 Industrial Blvd.
We: Sacramento, California 95691
(916) 372-1393

Date Received : 06 SEP 89 17:00

Mr. KEVIN J. BROWN
Dames & Moore
9300 Tech Center Dr.
Suite 100
Sacramento, California 95826

(916) 364-8698

Project ID,
EPA Case, RMA Lot : DAMCA03 UPRR-Sacramento 9/6/89 for Cr6
P.O. Number : 0173-022-044

Delivered By :

Storage Location : R15

Logged in by : SFISCHETTE

33(,ueous samples received in 250ml poly(33) under COC. Delivered over the counter.

Sample ID	Enseco ID	Client's label info	Date/Time Samp.	Containers
049094-0001-SA	118504	MW-11	06 SEP 89 15:30	1-250ml poly
049094-0002-SA	118649	MW-15	07 SEP 89 14:00	1-250ml poly
049 -0003-SA	118650	MW-16	07 SEP 89 09:15	1-250ml poly
049094-0004-SA	118651	MW-28	07 SEP 89 13:00	1-250ml poly
049094-0005-SA	118840	MW-21	08 SEP 89 13:15	1-250ml poly
049094-0006-SA	118841	MW-23	08 SEP 89 11:00	1-250ml poly
049094-0007-SA	118842	MW-24	08 SEP 89 08:40	1-250ml poly
049094-0008-SA	118843	MW-29	08 SEP 89 09:30	1-250ml poly
049094-0009-SA	119032	MW-22	11 SEP 89 13:15	1-250ml poly
049094-0010-SA	119033	MW-30	11 SEP 89 14:15	1-250ml poly
04[illegible]4-0011-SA	119034	MW-25	11 SEP 89 16:50	1-250ml poly
049094-0012-SA	119111	MW-26	12 SEP 89 09:40	1-250ml poly
049094-0013-SA	119112	MW-31	12 SEP 89 09:40	1-250ml poly
049094-0014-SA	119113	MW-12	12 SEP 89 09:40	1-250ml poly
049094-0015-SA	119320	MW-14	13 SEP 89 11:00	1-250ml poly
049094-0016-SA	119321	MW-32	13 SEP 89 12:10	1-250ml poly
049094-0017-SA	119323	MW-13	13 SEP 89 15:05	1-250ml poly
049094-0018-SA	119575	MW-19	14 SEP 89 11:45	1-250ml poly
049094-0019-SA	119576	MW-20	14 SEP 89 15:05	1-250ml poly
049094-0020-SA	119751	MW-27	15 SEP 89 11:05	1-250ml poly
049094-0021-SA	119752	MW-7	15 SEP 89 14:30	1-250ml poly
049094-0022-SA	119753	MW-33	15 SEP 89 15:15	1-250ml poly
049094-0023-SA	120533	MW-2	20 SEP 89 10:50	1-250ml poly
049094-0024-SA	120534	MW-3	20 SEP 89 13:15	1-250ml poly
049094-0025-SA	120535	MW-4	20 SEP 89 15:20	1-250ml poly

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

lient Manager: Beth Kelly

Sample ID	Enseco ID	Client's label info	Date/Time Samp.	Containers
049094-0026-SA	120536	MW-8	20 SEP 89 16:55	1-250ml poly
049094-0027-SA	120537	MW-35	20 SEP 89 17:40	1-250ml poly
049094-0028-SA	120701	MW-18	21 SEP 89 10:30	1-250ml poly
049094-0029-SA	120702	MW-17	21 SEP 89 15:15	1-250ml poly
049094-0030-SA	121027	MW-5	22 SEP 89 10:00	1-250ml poly
049094-0031-SA	121028	MW-6	22 SEP 89 12:20	1-250ml poly
049094-0032-SA	121029	MW-36	22 SEP 89 13:00	1-250ml poly
049094-0033-SA	121030	MW-1	22 SEP 89 15:15	1-250ml poly

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

Client Manager: Beth Kelly

CHAIN OF CUSTODY RECORD

JOB NO. _____

GENERATOR INFORMATION

Facility _____

Address _____

_____

Telephone ( ) _____

COLLECTOR INFORMATION

Collected by _____

Address _____

_____

Telephone _____

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME

Suspected Waste Constituents _____

Field Conditions/Remarks _____

SAMPLE ALLOCATION

Name _____

Address _____

_____

Telephone ( ) _____

___ sample received intact

___ sample received damaged or missing (describe on back)

_____ _____
(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1.					
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. _____

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility [illegible]

Address _____

_____

Telephone ( ) _____

COLLECTOR INFORMATION

Collected by [illegible]

Address [illegible]

[illegible]

Telephone (310) 364-8198

Suspected Waste Constituents Cr 6+

Field Conditions/Remarks _____

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-21	____	[illegible]	[illegible]	[illegible]
MW-22	[illegible]	[illegible]	"	[illegible]
MW-24	[illegible]	"	"	[illegible]
MW-27	[illegible]	"	↓	[illegible]
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____

SAMPLE ALLOCATION

Name [illegible]

Address [illegible]

[illegible]

Telephone ( ) _____

___ sample received intact

___ sample received damaged or missing (describe on back)

_____ (Signature) _____ (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. [illegible]	7/8/87	[illegible]	[illegible]		
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. [illegible]

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility UPRR (Sac)

Address _____

_____

Telephone ( ) _____

COLLECTOR INFORMATION

Collected by Dames & Moore (ALO)

Address 7300 Tech Center Dr #100
Sacramento 95826

Telephone (916) 364-8189

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-5A	41.5'	water	9/11/89	1345
MW-30	40'	water	9/11/89	1415
MW-5	41.5'	"	"	1450

Suspected Waste Constituents Cr 6+

Field Conditions/Remarks _____

SAMPLE ALLOCATION

Name Int'l Analytical Labs

Address [illegible]
Wilmington

Telephone ( ) _____

___ sample received intact

___ sample received damaged or missing (describe on back)

_____ (Signature) _____ (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. [illegible]	9/12/89	[illegible]	[illegible]	9-12-89	1205
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. 2017-022-04

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility UPRR Sacto

Address

Telephone ( )

COLLECTOR INFORMATION

Collected by Damesd Moore (ALO)

Address 9300 Tech Center Dr #100
Sacramento, CA 95826

Telephone (916) 364-8698

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-2R		water	9/12/89	2940
MW-31				1030
MW-12	82'			1430

Suspected Waste Constituents Cr 6+

Field Conditions/Remarks

SAMPLE ALLOCATION

Name Sat Anal Labs

Address Industrial Blvd
W Sacramento

Telephone ( )

___ sample received intact

___ sample received damaged or missing (describe on back)

(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1.	9/12/89	1620			
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn:

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. [illegible]-62-4

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility [illegible]

Address

Telephone ( )

COLLECTOR INFORMATION

Collected by Daniel Hamilton (AEI)

Address 1300 Tech Center Dr #100
Sacramento, CA 95826

Telephone (916) 364-8698

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-14		water	4/13/87	1100
MW-32		"	"	1215
MW-13		"	"	1515

Suspected Waste Constituents Cr 6+

Field Conditions/Remarks

SAMPLE ALLOCATION

Name NC Analytical Labs

Address Industrial Blvd
W. Sacramento

Telephone ( )

✓ sample received intact

___ sample received damaged or missing (describe on back)

[illegible] 4/13/87
(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. [illegible]	4/13/87	1645	[illegible]	[illegible]	[illegible]
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn:

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. _____

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility _____

Address _____

_____

Telephone ( ) _____

COLLECTOR INFORMATION

Collected by _____

Address _____

_____

Telephone ( ) _____

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
[illegible]		[illegible]	[illegible]	[illegible]
[illegible]		↓	↓	1525

Suspected Waste Constituents _____

Field Conditions/Remarks _____

SAMPLE ALLOCATION

Name _____

Address _____

_____

Telephone ( ) _____

✓ sample received intact

____ sample received damaged or missing (describe on back)

_____ 9-14-89
(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. _____	9/14/89		_____	9/14/89	1625
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. 901722-024

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility UPRR Sacto

Address

Telephone ( )

COLLECTOR INFORMATION

Collected by Donald Moore (AEO)

Address 8300 Tech Center Dr #100
Sacramento, CA

Telephone (916) 364-8099

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-27		water	1/15/91	1125
MW-7		↓	↓	1430
MW-33		↓	↓	1515

Suspected Waste Constituents Cr 6+

Field Conditions/Remarks

SAMPLE ALLOCATION

Name Mc Anal Labs

Address Industrial Blvd
W. Sacramento

Telephone ( )

/ sample received intact

___ sample received damaged or missing (describe on back)

(Signature) (Date) 1655

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1.	1/15/91	1655			
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn:

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. [illegible] -12- 414

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility [illegible] Sacto

Address _____

_____

Telephone ( ) _____

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-3	____	water	7/29/87	1340
MW-5	____	"	"	1315
MW-4	____	"	"	1350
MW-8	____	"	"	1405
MW-35	____	"	"	1740

COLLECTOR INFORMATION

Collected by Dames & Moore (ALO)

Address 1380 Tech Center Dr #170

Sacramento 95826

Telephone (916) 364-8698

Suspected Waste Constituents Cr 6+

Field Conditions/Remarks _____

SAMPLE ALLOCATION

Name Cal Anal Labs

Address Industrial Blvd

W Sacramento

Telephone ( ) _____

✓ sample received intact

____ sample received damaged or missing (describe on back)

✓ [illegible] 7/30/87

(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. [illegible]	7/29/87		[illegible]		
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. [illegible]

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility UPRR - SACTO

Address _____

_____

Telephone ( )

COLLECTOR INFORMATION

Collected by Dames Moore - ATE

Address 930 Tidewater Dr. Suite 510

Sacramento CA 95826

Telephone (916) 364-8698

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
[illegible]	____	[illegible]	[illegible]	1030
[illegible]	____	W	1	1515
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____

Suspected Waste Constituents Cat VI

Field Conditions/Remarks _____

SAMPLE ALLOCATION

Name Exsec - Cal Analytical

Address Industrial Blvd.

West Sacramento

Telephone ( ) 372-1393

✓ sample received intact

____ sample received damaged or missing (describe on back)

[illegible] 1-21-89

(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. [illegible]			[illegible]		
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn: _____

Pink-with report
Goldenrod-Dames & Moore - Job File

Dames & Moore

JOB NO. 01127-022-004

CHAIN OF CUSTODY RECORD

GENERATOR INFORMATION

Facility UPRR

Address [illegible]

Telephone ( )

COLLECTOR INFORMATION

Collected by [illegible] (KJB)

Address 9300 Tech. Center Dr. Suite

Sacto. CA. 95826

Telephone (916) 364-0698

SAMPLE INFORMATION

No.	DEPTH	TYPE	DATE	TIME
MW-5		WATER	9/22/89	[illegible]
MW-6		"	"	1220
MW-36		"	"	1300
MW-1		"	"	1515

Suspected Waste Constituents Cr^{+VI}

Field Conditions/Remarks

SAMPLE ALLOCATION

Name ENSECO

Address INDUSTRIAL BLVD.

West Sacramento, CA.

Telephone (916) 372-1393

X sample received intact

____ sample received damaged or missing (describe on back)

[signature] 9/22/89
(Signature) (Date)

CHAIN OF POSSESSION

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
1. [signature]	9/22/89	1530	[signature]	9/22/89	1555
2.					
3.					
4.					

Distribution

White-w/shipment-for consignee files
Blue-w/shipment-forward to Dames & Moore
Attn:

Pink-with report
Goldenrod-Dames & Moore - Job File

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
phone: (707) 763-8248 FAX: (707) 763-4068

Acculab Job # 4545-89

RECEIVED
OCT 0 1989
DAMES

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone (916) 364-8698
Address 9300 TECH CENTER STE 100
City, State, Zip SACRAMENTO CA 95823
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fail to pick up samples.

PROJ. NO. 00173-022-044 PROJECT NAME UPRR - SACTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	GO1	L03	8015 (GAS)	418.1	CAM METALS		REMARKS	LAB USE ONL LAB NO.
TC-11	9/21/89	0735		X	TC-11	1	✓							
FB-11	"	0825		"	FB-11	2	✓	✓						
MW-5	"	1000		"	MW-5	5	✓	✓	✓	✓	✓			
MW-6	"	1220		"	MW-6	5	✓	✓	✓	✓	✓			
MW-36	"	1300		"	MW-36	5	✓	✓	✓	✓	✓			
MW-1	↓			↓	MW-1	5	✓	✓	✓	✓	✓			

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	9/25/89	1600	[illegible]
[illegible]	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per
M & Quote #1001
- See Attachment

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4068

Acculab Job # 4637-89

RECEIVED
OCT 06 1989

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE
Address 4300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO CA 95834
DAMES & MOORE Phone 916/ 564-8500
Client's or Representative's Signature
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 01170-022-044
PROJECT NAME UPRR - SACTO.
SAMPLERS (Signature)

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As Cu Pb Sb	REMARKS	LAB USE ONLY LAB NO.
	9/2/89			X	P211X00.0	1	✓	SURFACE	
					P212X00.0	1	✓		
					P213X00.0	1	✓		
					P176X00.0	1	✓		
					P177X00.0	1	✓		
					P178X00.0	1	✓		
					P175X00.0	1	✓		
					P192X00.0	1	✓		
					P200X00.0	1	✓ ✓		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	10/2/89	1630	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% [illegible]
M.V. Cube Fed Ex

CALLAB-049508

Enseco, Inc. - Cal Lab Analytical
254' Industrial Blvd.
West Sacramento, California 95691
(916) 372-1393

Date Received : 02 OCT 89 11:00

Jim Smith
Dames & Moore
9300 Tech Center Dr.
Suite 100
Sacramento, California 95826

(916) 364-8698

Project ID,
EPA Case, RMA Lot : DAMCA03 UPRR-Sacramento Soil/8020,TPH
P.O. Number :
Delivered By :
Storage Location : R20
Logged in by : BPIERCE

One oil sample was received under COC in good condition.
Delivered OTC.

Sample ID	Enseco ID	Client's label info	Date/Time Samp.	Containers
049508-0001-SA	122299	POH1X02.0	29 SEP 89	6" brass tube

RECEIVED
OCT 0 1989
DAMES & MOORE

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

Client Manager: Beth Kelly

ACCULAB
3200 Lakeville Highway, Petaluma, CA 94952
Box 809034, Petaluma, CA 94975-9024
Phone: (707) 763-8245 FAX: (707) 763-4065

ENSECO - CAL ANALYTICAL WEST SACRAMENTO

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/9364-8698
Address 9300 Tech Center Drive ste. 100
City, State, Zip Sacramento, CA 95826
Client's or Representative's Signature Keven J Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Keven A Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTXE - 8020	418.1 TPH	8015 GAS				REMARKS	LAB USE ONLY LAB NO.
P0.1	9/29/89			X	POH1XQ2.0	1	✓	✓	✓				0.1 House Area	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin A. Brown	10/2/89	1100	William Rose
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
- Direct any questions to Jim Smith in Sacto office @ 364-8698

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED

OCT 1 1989

DAMES & MOORE

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone 916 / 364-8698
Address 9300 Tech Center Drive Ste 900
City, State, Zip Sacramento, CA 95823
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044
PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Kevin J. Brown / Don Walker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Asbestos-PLM	REMARKS	LAB USE ONLY LAB NO.
B1	10/4/89			X	7-B1-0.0'	1	X		
B1					7-B1-1.5'	1	X		
B2					7-B2-0.0'	1	X		
B2					7-B2-1.5'	1	X		
B3					7-B3-0.0'	1	X		
					7-B3-1.5'	1	X		
B4					7-B4-0.0'	1	X		
B4	↓				7-B4-1.5'	1	X		
B5	10/5/89				7-B5-0.0'	1	X		
B5					7-B5-1.5'	1	X		
B6					7-B6-0.0'	1	X		
B6					7-B6-1.5'	1	X		
B7					7-B7-0.0'	1	X		
B7					7-B7-1.5'	1	X	Heavy Hydrocarbons	
B8					7-B8-0.0'	1	X		
B8					7-B8-1.5'	1	X	Heavy Hydrocarbons	
A10					7-A10-0.0'	1	X		
A10					7-A10-1.5'	1	X		
A11					7-A11-0.0'	1	X		
A11	↓			↓	7-A11-1.5'	1	X		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	10/6/89	1000	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per M.V. Quot. # 1001

ACCULAB

Acculab 4800-89

RECEIVED

OCT 1 - 1989

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames + Moore Phone (916) 364-1691

Address 7200 Fair Oaks Blvd Ste 100

City, State, Zip Sacramento CA 95610

Client's or Representative's Signature [signature] Attn: Kevin Brown

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022 PROJECT NAME UP Sacramento

SAMPLERS (Signature) [signature]

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015	602					REMARKS	LAB USE ONLY LAB NO.
~~MW17~~	~~10/5~~													
MW37	10/6				MW37	2	X	X						
TRIP		Blank				1	X	X						
MW12	10/12				MW12	2	X	X						

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	10/13		[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Call Kevin Brown at Dames & Moore (916) 364-1691

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

ACCULAB JOB # 89-5145

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone (916) 361-8691
Address 9300 TECH CENTER DR
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 01+3-022-044 PROJECT NAME UPPER SACRAMENTO
SAMPLERS (Signature)

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8015	8240					REMARKS	LAB USE ONLY LAB NO.
MW-14	11/2	1145		X	MW-14	TWO	X	X						
FB-12	11/2	1115		X	FB-12	TWO	X	X						
MW-18	11/2	1020		X	MW-18	TWO	X	X						
MW-13	11/2	1345		X	MW-13	TWO	X	X						
MW-38	11/2	1415		X	MW-38	TWO	X	X						
12	11/2	0730		X	TC-12	ONE TWO	X							
													FX Credit $17.00	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	11/2/94	1430	Lori B Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
SEND RESULTS ATTN:
KEVIN BROWN
30% DISCOUNT AS PER M.D.
QUOTE # 1721

Acculab ft. 70-3457

2700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4068

RECEIVED

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044 PROJECT NAME UPRR / SACTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601	602	As, Cr, Pb, Ni, Fe, Hardness	As, Cr, Pb, Ni	TPH GAS / DIESEL	ALKALINITY, SO4, TDS	AMMONIA, TOC	601 ONLY	REMARKS	LAB USE ONLY LAB NO.
MW-12	5/22/90	1200		X	MW-12	10 w	✓	✓		✓	✓	✓				
MW-14	↓	1430		X	MW-14	10 w	✓	✓		✓	✓	✓				
MW-8	5/23/90	1000		X	MW-8	8 w	✓		✓	✓						
MW-7	↓	1130		X	MW-7	8 w	✓		✓	✓						
MW-4	↓	1400		X	MW-4	10 w	✓	✓		✓	✓	✓				
TC-4	↓	1630		X	TC-4	2 w							✓			

DHL
5 water containers

RECEIVED
JUN 14 1990
DAMES & MOORE

DHL credit #30 24 hour delay

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/23/90	1630	Jane B. Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V.
Quote # 1001
Send Results to Kevin J. Brown

Re Saff# 90-3212

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone 916/364-8698
Address 9300 Tech Center Drive, Ste. 100
City, State, Zip Sacramento, CA. 95823
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-644 | PROJECT NAME UPRR/SACRAMENTO

SAMPLERS (Signature) Kevin J. Brown / Chris Lonergan KJB

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH 8015	BTEX 8020	Pb Cr NI				REMARKS / LAB USE ONLY LAB NO.
MW-1	5/10/90	1315		✓	MW-1	5	✓	✓					
MW-3	↓	1430		✓	MW-3	5	✓	✓					

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MAY 1990
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/11/90	0830	Jane B. Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per M.V. Quote # 1001
Send Results to Kevin J. Brown

90-3271

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

RECEIVED

MAY 17 1990

DAMES & MOORE

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown Christopher Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

MV PR

PROJ. NO.	PROJECT NAME
00173-054-044	UPRR/SACTO

SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601 & 8240	AS or PD, XJB	602	REMARKS	LAB USE ONLY LAB NO.
MW-19	5/14/90	1500		✓	MW-19	5	✓	✓	✓		
MW-20	↓	1600			MW-20	5	✓	✓	✓		
TC-1	5/15/90	0900			TC-1	2	✓				
MW-21		1000			MW-21	5	✓	✓	✓		
MW-22		1030			MW-22	5	✓	✓	✓		
MW-23		1400			MW-23	5	✓	✓	✓		
MW-24	↓	1430		✓	MW-24	5	✓	✓	✓		
					DHL Fratus						
										DHL credit 16	
										all samples in the walk in	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Christopher Lonergan	5/15/90	1600	Jane B Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V. Quote # 1001
- Send Results to Kevin J. Brown

90-327

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

RECEIVED
MAY 17 1990
DAMES & MOORE

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown, Christopher Lonergan
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044
PROJECT NAME UPRR/SACTO
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601, 602, BTEX, As, Cr, Pb, Ni, 602	REMARKS / LAB USE ONLY LAB NO.
MW-19	5/14/90	1500		✓	MW-19	5	✓ ✓ ✓	
MW-20	↓	1600			MW-20	5	✓ ✓ ✓	
TC-1	5/15/90	0900			TC-1	2	✓	
MW-21		1000			MW-21	5	✓ ✓ ✓	
MW-22		1030			MW-22	5	✓ ✓ ✓	
MW-23		1400			MW-23	5	✓ ✓ ✓	
MW-24	↓	1430		↓	MW-24	5	✓ ✓ ✓	

DHL: Fuates
DHL credit 16.00
all samples in the walk in

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Christopher Lonergan	5/15/90	16:00	Jane B Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V. Quote # 1001
- Send Results to Kevin J. Brown

LAB COPY

Depth 90-3354

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3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

MV PR RR BG

PROJ. NO. 00173-054 044 | PROJECT NAME UPRR/SACTO

SAMPLERS (Signature) Kevin J. Brown / Chris Lonergan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601	602	As, Cr, Pb, Ni	TPH/GAS	TPH/DIESEL	REMARKS	LAB USE ONLY LAB NO.
MW-15	5/16/90	1450		✓	MW-15	5	✓	✓	✓				[illegible]
MW-16		1440		✓	MW-16	5	✓	✓	✓				[illegible]
MW-25		1015		✓	MW-25	8	✓	✓	✓	✓	✓		[illegible]
MW-26	↓	0945		✓	MW-26	8	✓	✓	✓	✓	✓		[illegible]
TC-2	5/17/90	0900		✓	TC-2	1	✓						[illegible]
MW-5		1115		✓	MW-5	8	✓	✓	✓	✓	✓		[illegible]
MW-6		000		✓	MW-6	5	✓	✓	✓				[illegible]
MW-2	↓	1500		✓	MW-2	8	✓	✓	✓	✓	✓		[illegible]

DHL: 8. water

DHL credit 25 DHL credit

Logged in

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/17/90	1645	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% Discount as per M.V. Quote # 1001
Send Results to Kevin J. Brown.

Quote # 40-3397

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

MV PR ~~TDS~~ JP BE LL RR

PROJ. NO. 00173-054-044 PROJECT NAME UPRR/SACTO
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601 8021	As & Pb (Hardness)	Alkalinity, SO_4, PO_4, TDS	Ammonia TOC	TPH GAS/DIESEL 601 Only	REMARKS	LAB USE ONLY LAB NO.
MW-18	5/18/90	0945		✓	MW-18	10	✓	✓	✓	✓	✓		014562
MW-17	"	1130		✓	MW-17	10	✓	✓	✓	✓	✓		
MW-11	"	1500		✓	MW-11	10	✓	✓	✓	✓	✓		
MW-33	↓	1530		✓	MW-33	10	✓	✓	✓	✓	✓		
RB-1	5/21/90	1045		✓	RB-1	4	✓						
MW-28	"	1145		✓	MW-28	10	✓	✓	✓	✓	✓		
MW-27	↓	1500		✓	MW-27 8 ~~10~~	~~10~~	✓	✓	✓	✓	✓	No GENERAL PHYSICAL No Fe, Hardness	
TC-3	5/22/90	0800		✓	TC-3	2					✓		

HD 42 VOA Vials → (Attn: Paul S. Ref.)
32 Waters → (Attn: [illegible])

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MAY 25 1990
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/22/90	0830	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V.
Quote # 1001
Send results to Kevin J. Brown

Accibt 90-3493

RECEIVED

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707)763-8248 FAX: (707)763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/ 361-8698

Address 9300 TECH CENTER DRIVE. STE 160

City, State, Zip SACRAMENTO, CA. 95826

Client's or Representative's Signature Kevin A. Brown

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PR NT SK RC BG I.T.

MV

PROJ. NO.	PROJECT NAME
00173-031-044	UPRR / SACTO.

SAMPLERS (Signature): Kevin A. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601, 602	HSG, TOG, N, TPE, Petroleum	Alkalinity, TDS, SO4, TDS	TPH/GAS+DIESEL	Ammonia, TOC	601 Only	REMARKS	LAB USE ONLY LAB NO.
MW-31	5/24/90	1030		X	MW-31	10 w	✓	✓	✓	✓	✓			
MW-30		1230			MW-30	10 w	✓	✓	✓	✓	✓			
MW-30A		1360			MW-30 A	10 w	✓	✓	✓	✓	✓			
MW-32		1600			MW-32	10 w	✓	✓	✓	✓	✓			
MW-32A	↓	1630		↓	MW-32 A	10 w	✓	✓	✓	✓	✓			
TC-5	5/25/90	0900		X	TC-5	2 w						✓		

RECEIVED

JUN 1 1990

DAMES & MOORE

Natural pH was 7.5

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin A. Brown	5/25/90	0930	Jane B Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V. Quote # 1001
Send Results to Kevin Brown

LAB COPY

ACCUTEST
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Accutest 90-3493

RECEIVED

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044
PROJECT NAME UPRR/SACTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601 602	REMARKS / LAB USE ONLY LAB NO.
RB-2	5/24/90	1430		X	RB-2	4	✓	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/25/90	0930	Jane B. Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% discount as per M.V. Quote #1001
Send Results to Kevin Brown

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

Acculab Job # 90-835

RECEIVED BY ACCULAB

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone # 916/536-1635
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

MV

PROJ. NO.	PROJECT NAME
00173-054-044	UPRR/SACTO.

SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601 602	As Pb Ni Fe Hardness	Alkalinity TDS	TPH/GAS + DIESEL	Ammonia TOC	601 only	REMARKS / LAB USE ONLY LAB NO.
MW-13	5/29/90	1300		X	MW-13	10	✓	✓	✓	✓	✓		
MW-13A		1330			MW-13A	10	✓	✓	✓	✓	✓		
MW-29		1515			MW-29	10	✓	✓	✓	✓	✓		
TL-6	5/29/90	0800			TL-6	2						✓	

RECEIVED
JUN 1 1990
DAMES & MOORE

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/29/90	1000	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
30% Discount as per
M.V. Quote # 1001
Send Results to Kevin J. Brown.

LAB COPY

Acculab Job # 90-3516

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-5245 FAX: (707) 763-4068

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ACCULAB

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone (916) 920-8535
Address 9300 TECH CENTER DRIVE STE. 100
City, State, Zip SACRAMENTO, CA 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME
00173-054-844	UPRR/SACTO

SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	601	602	REMARKS	LAB USE ONLY LAB NO.
RB-3	5/29/90	1545		X	RB-3	4	✓			

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/29/90	1600	Jose B Andersen
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: 30% Discount as per M.V. Quote # 1001
Send Results to Kevin J. Brown.

LAB COPY

Anlab

ANALYTICAL LABORATORY

A DIVISION OF DEWANTE & STOWELL

1914 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

CHAIN OF CUSTODY

DATE 5/18/90 WEATHER —— PAGE 1 OF 1

LOCATION UPRR/SACRAMENTO
SAMPLER SIGNATURE Kevin A. Brown
PRINTED NAME KEVIN J. BROWN
COMPANY NAME DAMES & MOORE
LAB REPORT RECIPIENT
TELEPHONE NUMBER 916/364-8698
ADDRESS 9300 TECH CENTER DRIVE STE. 100
SACRAMENTO, CA. 95826

SAMPLE ID#	TIME	WATER/ SOIL	COMP/ GRAB	VOLUME	Container Type	Number of Containers	Iced	Sampling Method	ANALYSES REQUESTED: BOD
MW-18	0945	WATER	GRAB	500ml.	P	1	✓	Bailer	✓
MW-17	1130	↓	↓	↓	P	1	✓	↓	✓
MW-11	1500	↓	↓	↓	P	1	✓	↓	✓
MW-33	1530	↓	↓	↓	P	1	✓	↓	✓

Precautions:

Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Kevin A. Brown	5/18/90	1619	Heidi Hinrichs	5/18/90	1618
Company DAMES & MOORE			Company Anlab		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		

COMMENTS
Include QA/QC Information w/ report - Obtain lowest possible detection limit Not wastewater!

Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client's expense.

Anlab

ANALYTICAL LABORATORY

A DIVISION OF DEWANTE & STOWELL

1914 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

CHAIN OF CUSTODY

DATE 5/21/90 WEATHER _____ PAGE 1 OF 1

LOCATION UPRR/SACRAMENTO
SAMPLER SIGNATURE Kevin J. Brown
PRINTED NAME KEVIN J. BROWN
COMPANY NAME JAMES & MOORE
AB REPORT RECIPIENT
TELEPHONE NUMBER 916/364-8698
ADDRESS 9300 TECH CENTER DRIVE STE. 100
SACRAMENTO, CA. 95826

SAMPLE ID#	TIME	WATER/ SOIL	COMP/ GRAB	VOLUME	Container Type	Number of Containers	Iced	Sampling Method	ANALYSES REQUESTED: TPH
MW-28	1130	WATER	GRAB	500 ml.	P	1	✓	BAILER	✓
MW-27	1300	↓	↓	↓	↓	1	✓	↓	✓

⇒ No KSB 5/21/90

Precautions:

Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Kevin J. Brown	5/21/90	1605	Heidi Hinrichs	5/21/90	1605
Company: James & Moore			Company: Anlab		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		

COMMENTS
Include QA/QC Data w/ Report.
- BOTH SAMPLES FROM WELLS USE LOWEST DETECTION LIMITS OBTAINABLE

Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client's expense.

Anlab

ANALYTICAL LABORATORY

A DIVISION OF DEWANTE & STOWELL

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CHAIN OF CUSTODY

DATE 5/22/90 WEATHER Nice PAGE 1 OF 1

LOCATION UPRR / SACRAMENTO
SAMPLER SIGNATURE Kevin J. Brown
PRINTED NAME KEVIN J. BROWN
COMPANY NAME DAMES & MOORE
LAB REPORT RECIPIENT
TELEPHONE NUMBER 916/361-8998
ADDRESS 9300 TECH CENTER DRIVE, STE 100
SACRAMENTO, CA. 95826

SAMPLE ID#	TIME	WATER/ SOIL	COMP/ GRAB	VOLUME	Container Type	Number of Containers	Iced	Sampling Method	ANALYSES REQUESTED: BOD
MW-12	1200	WATER	GRAB	500 ml.	P	1	✓	BAILER	✓
MW-14	1430	↓	↓	↓	↓	1	✓	↓	✓

Precautions:

Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Kevin J. Brown	5/22/90	1515	Heidi Hmiel	5/22	1510
Company: Dames & Moore			Company: Anlab		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		

COMMENTS
Include QA/QC data w/ report
MONITORING WELL SAMPLES
NOT WASTEWATER!
Obtain lowest possible detections

Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client's expense.

Anlab

ANALYTICAL LABORATORY
A DIVISION OF DEWANTE & STOWELL
1914 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

CHAIN OF CUSTODY

DATE 5/23/90 WEATHER Nice PAGE 1 OF 1

LOCATION UPRR/ SACRAMENTO
SAMPLER SIGNATURE Kevin J. Brown
PRINTED NAME KEVIN J. BROWN
COMPANY NAME DAMES & MOORE
LAB REPORT RECIPIENT
TELEPHONE NUMBER 916/364-8698
ADDRESS 9300 TECH CENTER DRIVE STE. 100
SACRAMENTO, CA.

SAMPLE ID#	TIME	WATER/ SOIL	COMP/ GRAB	VOLUME	Container Type	Number of Containers	Iced	Sampling Method	ANALYSES REQUESTED: BOD
MW-4	1400	WATER	GRAB	500 ml.	P	1	✓	BAILER	✓

Precautions:

Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Kevin J. Brown	5/23/90	1455		5/23/90	1455
Company DAMES & MOORE			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		

COMMENTS
INCLUDE QA/QC data w/ report
- Monitoring Well water
- Not WASTEWATER
- Obtain lowest possible detection limits

Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client's expense.

Anlab

ANALYTICAL LABORATORY

A DIVISION OF DEWANTE & STOWELL

1914 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

CHAIN OF CUSTODY

DATE 5/24/90 WEATHER NICE PAGE 1 OF 1

LOCATION UPRR / SACRAMENTO
SAMPLER SIGNATURE Kevin J. Brown
PRINTED NAME KEVIN J. BROWN
COMPANY NAME DAMES & MOORE
LAB REPORT RECIPIENT
TELEPHONE NUMBER 916 364-8698
ADDRESS 9300 TECH CENTER DRIVE STE. 100
SACRAMENTO, CA. 95826

SAMPLE ID#	TIME	WATER/ SOIL	COMP/ GRAB	VOLUME	Container Type	Number of Containers	Iced	Sampling Method	ANALYSES REQUESTED: 8099
MW-31	1030	WATER	GRAB	500ml.	P	1	✓	BAILER	✓
MW-30	1230	↓	↓	↓	↓	1	✓	↓	✓
MW-30A	1300	↓	↓	↓	↓	1	✓	↓	✓
MW-32	1600	↓	↓	↓	↓	1	✓	↓	✓
MW-32A	1630	↓	↓	↓	↓	1	✓	↓	✓

Precautions:

Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Kevin J. Brown	5/24/90	1625		5/24/90	1625
Company: DAMES & MOORE			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		

COMMENTS
Include QA/QC data w/report
Groundwater from Monitoring Wells → Not Wastewater
Obtain lowest possible detections

Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client's expense.

Anlab

ANALYTICAL LABORATORY

A DIVISION OF DEWANTE & STOWELL

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CHAIN OF CUSTODY

DATE 5/25/90 WEATHER NICE PAGE 1 OF 1

LOCATION UPRR/ SACRAMENTO
SAMPLER SIGNATURE Kevin A. Brown
PRINTED NAME KEVIN J. BROWN
COMPANY NAME DAMES & MOORE
LAB REPORT RECIPIENT
TELEPHONE NUMBER 916/364-8698
ADDRESS 9300 TECH CENTER DRIVE. STE. 100
SACRAMENTO, CA. 95826

SAMPLE ID#	TIME	WATER/ SOIL	COMP/ GRAB	VOLUME	Container Type	Number of Containers	Iced	Sampling Method	ANALYSES REQUESTED: 8010
MW-13	1300	WATER	GRAB	500 ml	P	1	✓	BAILER	✓
MW-13A	1330	↓	↓	↓	↓	1	✓	↓	✓
MW-29	1515	↓	↓	↓	↓	1	✓	↓	✓

Precautions:

Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Kevin J. Brown	5/25/90	1545		5/25/90	1545
Company: DAMES & MOORE			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		
Sample Relinquished by	DATE	TIME	Sample Received by	DATE	TIME
Company			Company		

COMMENTS

Include QA/QC Data w/ report

Groundwater Samples Not Wastewater

Obtain lowest possible detection limits

Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

90-3009

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED
ACCULAB

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name: DAMES & MOORE
Address: 9300 TECH CENTER DRIVE STE 100
City, State, Zip: SACRAMENTO, CA. 95826
Telephone: (916) 1304-8698
Client's or Representative's Signature: Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PM BGRR RR

PROJ. NO.	PROJECT NAME
00173-054044	UPRR - SACTO.

SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PURGEABLES 8240	TPH/Diesel 3550/8015	TPH/Gas 5020/8015	AROMATICS 8020			REMARKS	LAB USE ONLY LAB NO.
MW33	4/26	90		✓	MW3330.0B	1	✓	✓						
↓	↓			✓	MW3340.0B	1	✓	✓						
SB21	4/30	90		✓	SB2105.0B	1	✓							
				✓	SB2115.0B	1	✓							
↓	↓			✓	SB2125.0B	1	✓							
SB22	4/30	90		✓	SB2210.0B	1		✓	✓	✓				
				✓	SB2215.0B	1		✓	✓	✓				
↓	↓			✓	SB2225.0B	1	✓	✓	✓	■	KJB			

DHL CREDIT # 19.80

8 SOILS

RECEIVED
MAY 1990
DAMES & MOORE

LOG IN: 1.40

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	5/3/90	0830	5-4-90 G. GILARDI
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
- NORMAL TURNAROUND
- TAKE CORES OUT OF SAMPLES FOR ANALYSIS
- SEND RESULTS TO: TIM PARKER

Acculab Job # 90-1918

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED
ACCULAB
1990 APR 25 PM 12:40

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name: DAMES & MOORE
Address: 9300 TECH CENTER DRIVE STE. 100
City, State, Zip: SACRAMENTO, CA. 95826
Phone: 916/ 361-8698
Client's or Representative's Signature: Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.: 00173-054-044
PROJECT NAME: UPRR/SACTO
SAMPLERS (Signature): Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	MV 6DT,6DZ	REMARKS / LAB USE ONLY LAB NO.
MW-30	4/23/90			X	MW-30	3	✓	WATER
MW-32	↓			↓	MW3256.0A	1	HOLD	SOIL
					PHL 3 waters 1 Lab			
								DHL Credit 74 70 DH Brand

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	4/24/90	0820	Jane B Anderson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: SEND RESULTS TO TIM PARKER IN SACRAMENTO

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 868024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916-364-8698
Address 9300 TECH CENTER DRIVE Ste 100
City, State, Zip SACTO CA 95826
Client's or Representative's Signature Timothy K Park
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-014 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Timothy K Park

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	REMARKS / LAB USE ONLY LAB NO.
MW-30	4/22/90	0835			MW-30	3	601/602
MW-29	4/23/90	0910			MW-29	3	602/601
HP-1	4/23/90	1130			HP-1-36	3	602
HP-1	4/23/90	1445			HP-1-56	3	601
HP-2	4/23/90	1650			HP-1-36	3	601/602

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Tim Park	4/23/90	0945	Dan Buhman
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Samples Received on site as Sampled

CLIENT COPY

ACCUTEST ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name Dames & Moore Phone 916-364-8698
Address 9300 Tech Center Drive, Suite 100
City, State, Zip Sacto, CA 95826
Client's or Representative's Signature Timothy K Parker
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. | PROJECT NAME: UPRR - Sacto 00173-054-044

SAMPLERS (Signature): Timothy K Parker

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION — SAMPLE NO	NO. OF CONTAINERS	601	602	REMARKS	LAB USE ONLY LAB NO.
HP-26	5/7/90	1245	-	-	HP-26-39	3	X			
HP-26	5/7/90	1330	-	-	HP-26-47	3	X			
HP-15	5/8/90	0725	-	-	HP-15-37	3	X	X		
HP-27	5/8/90	1435	-	-	HP-27-47	3	X			

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Timothy K Parker	5/9/90	0940	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Standard Turn Around Time

CLIENT COPY

ACCUTEST
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma,CA. 94975-8024
Telephone: (707)763-8245 FAX: (707)763-8675

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name James & Moore Phone 916-364-8698
Address 9300 Tech Center Drive, Ste 100
City, State, Zip Sacto, CA 95826
Client's or Representative's Signature Timothy L Park
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. | PROJECT NAME: UPRR-SACTO 00173-054-044

SAMPLERS (Signature): Timothy L Park

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION / Sample No.	NO. OF CONTAINERS	601	602					REMARKS / LAB USE ONLY LAB NO.
HP-20	5/4/90	0730	-	-	HP-20-37	3	X	X					
HP-24	"	1040	-	-	HP-24-40	3	X						
HP-24	"	1140	-	-	HP-24-50	3	X						
HP-25	"	1500	-	-	HP-25-37	3	X						
HP-25	"	1535	-	-	HP-25-54	3	X						Samples rec'd in good condition

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	General Remarks:
Timothy L Park	5/4/90	1650	K. Mitchell	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-5346 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name JAMES & MOORE Phone 916-364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACTO CA 95826
Client's or Representative's Signature Timothy K Park
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Timothy K Park

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION / SAMPLE #	NO. OF CONTAINERS	601	602	REMARKS / LAB USE ONLY LAB NO.
HP-20	5/3/00	0730	-	-	HP-20-51	1	X		
HP-21	5/3/00	1040	-	-	HP-21-36	3	X		
HP-21	5/3/00	1115	-	-	HP-21-54	3	X		
HP-22	5/3/00	1315	-	-	HP-22-37	3	X	X	Samples rec'd in good condition
HP-22	5/3/00	1345	-	-	HP-22-55	3	X		
HP-23	5/3/00	1450	-	-	HP-23-37	3	X	X	
HP-23	5/3/00	1530	-	-	HP-23-55	3	X		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Timothy K Park	5/3/00	2045	K-Mitchell
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Will call first thing in morning RE: turnaround

CLIENT COPY

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A CORNING Company

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☐ 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 5/1/90 Page 1 of 1

Lab Number

CLIENT [illegible]

ADDRESS [illegible]

PROJECT NAME [illegible]

CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER [illegible]

PHONE NUMBER [illegible]

SITE CONTACT

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 - PURGEABLE	8015						Sample Condition/ REMARKS
HP-15-51	5/1/90	0900	B050190-1	✓			3	X	X						
HP-16-36	5/1/90	1130	-2	✓			3	X							
✓ HP-16-54	5/1/90	1230	-3	✓			3	X							
HP-17-37.5	5/1/90	1530	-4	✓			3	X							
✓ HP-17-47	5/1/90	1615	-5	✓			3	X							
✓ HP-17-54	5/1/90	1660	-6	✓			4	X							

SAMPLERS: (Signature) [signature]

Relinquished by: (Signature) [signature]

Relinquished by: (Signature)

Received by: (Signature)

Received by: (Signature)

Date	Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
[signature]	5/1/90	[illegible]		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date May 2 Page 1 of 1

Lab Number

CLIENT DAMES & MOORE
ADDRESS 9300 TECH CENTER DR. #100
SACTO, CA 95826
PROJECT NAME UPRR - SACTO
CONTRACT / PURCHASE ORDER / QUOTE # 00173-054-041

PROJECT MANAGER JIM SMITH
PHONE NUMBER 916-364-1675
SITE CONTACT TIM PARKER

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 - 1 PRESERV	602						Sample Condition/ REMARKS
HP-18-37	5/1/90	1015	B050790-1	✓			3	X							602 - Stationary lab
HP-[illegible]	5/1/90	1100	-2	✓			3	X							601 - Stationary lab
HP-19-38	5/2/90	1330	-3	✓			3	X	X						
HP-19-54	5/2/90	1430	-4	✓			3	X	X						

SAMPLERS: (Signature)

		Date	Time
Relinquished by: (Signature)	Received by: (Signature)		
Relinquished by: (Signature)	Received by: (Signature)		

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
			Gary Denham	5/2/90	As Sampled		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☐ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/30/90 Page 1 of 1

Lab Number _____

CLIENT Dames & Moore
ADDRESS 7300 Tech Center Dr. #100
Sacto 95826
PROJECT NAME
UPRR - Sacto
CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER
Jim Smith
PHONE NUMBER
916-364-8698
SITE CONTACT
Tim Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 + TPHCLTED	602						Sample Condition/ REMARKS
HP-12-38	4/30/90	0845	BW3090-1	✓			3	X	X						
HP-12-49	4/30/90	1010	2	✓			3	X	X						
HP-13-36	4/30/90	1305	3	✓			3	X	X						
HP-13-51	4/30/90	1345	4	✓			3	X							
HP-14-37	4/30/90	1505	5	✓			3	X							
HP-14-48	4/30/90	1610	6	✓			3	X							

SAMPLERS: (Signature)

Relinquished by: (Signature)

Received by: (Signature) — Date — Time

Received by: (Signature) — Date — Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature) — Date — Time

Received for Laboratory by: Gary Beckman

Date RECEIVED	Time	Date ACCEPTED	Time
4/30/90	As Sample		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/27/90 Page 1 of 1

Lab Number _____

CLIENT Dames & Moore

ADDRESS 9000 Tech Center Drive 77100
Sacto 95826

PROJECT NAME
UPRR - Sacto

CONTRACT / PURCHASE ORDER / QUOTE #
00173-052-044

PROJECT MANAGER
J.M Smith

PHONE NUMBER
916-364-8695

SITE CONTACT
Tim Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 THC's TPH	602						Sample Condition/ REMARKS
HP-10-35	4/27/90	0925	B012790-1	✓			3	X	X						
HP-10-45	4/27/90	1055	-2	✓			3	X	X						
HP-11-35	4/27/90	1330	-3	✓			3	X	X						
HP-11-40	4/27/90	1405	-4	✓			3								Hold
HP-11-50	4/27/90	1435	-5	✓			3	X	X						

SAMPLERS: (Signature) Timothy K Parker

Relinquished by: (Signature) Timothy K Parker

Received by: (Signature) _____ Date _____ Time _____

Relinquished by: (Signature) _____ Date _____ Time _____

Received by: (Signature) _____ Date _____ Time _____

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Relinquished by: (Signature) _____ Date _____ Time _____

Received for Laboratory by: Gary Buckman

Date RECEIVED 4/27/90 Time As Sampled

Date ACCEPTED _____ Time _____

Method of Shipment: _____

Special Instructions: _____

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control.

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A CORNING Company

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☐ 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☐ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/26/90 Page 1 of 1

Lab Number _____

CLIENT DAMES & MOORE

ADDRESS 9300 TECH CENTER DR ST 100
Sacramento, CA 95826

* PROJECT NAME
UPRR - SACTO 00173-054-044.
CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER
JIM SMITH

PHONE NUMBER
916-364-8698

SITE CONTACT
TIM PARKER

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601							Sample Condition/ REMARKS
HP-8-54	4/26	1230	B042690-4	✓			3	✓							1 vial opened

SAMPLERS: (Signature)

Relinquished by: (Signature)

Received by: (Signature)

Received by: (Signature)

Date 4/26/90 Time 16:08

Date Time

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Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
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2. Sample to be returned to client: Y N
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☑ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/25/90 Page 1 of 1

Lab Number

CLIENT Dames & Moore
ADDRESS 9300 Tech Center Drive #410
Sacto, CA 95826
PROJECT NAME UPRR - Sacto
CONTRACT / PURCHASE ORDER / QUOTE # 00173-054-044
PROJECT MANAGER Jim Smith
PHONE NUMBER 361-8618
SITE CONTACT Tim Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 TARGETED	602					Sample Condition/ REMARKS
HP-5-42	4/24/90	1010	B012570-1	✓			3	X	X					
HP-5-56	4/24/90	1130	-2	✓			3	X	X					
HP 6-37	4/24/90	1540	-3	✓			2	X	X					
HP-6-53.5	4/24/90	1630	-4	✓			3	X						

SAMPLERS: (Signature) Timothy A Parker

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

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Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
			Gary Bukuras	4/25/90	As Sampled		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

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☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/24/90 Page 1 of 1

Lab Number

CLIENT Dames & Moore

ADDRESS 1315 T... Irvine CA ... P.O.

PROJECT NAME UPRR - Spec...

CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER J. M. Smith

PHONE NUMBER (...) 541-8516

SITE CONTACT T. H. Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	8015	8020					Sample Condition/ REMARKS
HP-2-52	4/24/90	0935	B042490-1	✓			3	X	X					
HP-3-36.5	4/24/90	1100	-2	✓			3	X	X					
HP-3-57	4/24/90	1140		✓			3	X	X					
HP-4-36	4/24/90	1440		✓			3	X	X					
HP-4-42	4/24/90	1525		✓			3	X						

SAMPLERS: (Signature) [signature]

Relinquished by: (Signature) [signature]

Relinquished by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received for Laboratory by: [signature]

Date	Time
4/24/90	As Sampled

Date RECEIVED Time

Date ACCEPTED Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

ACCUTEST
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916-364-5698
Address 9300 TECH CENTER DRIVE Ste 100
City, State, Zip SACTO, CA 95826

Client's or Representative's Signature _____
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature) Timothy K Peck

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	REMARKS / LAB USE ONLY LAB NO.
MW30	4/23	0835					
MW30	4/23/90	0835			MW-30	3	602/601
MW29	4/23/90	0910			MW-29	3	601
HP-1	4/23/90	1445			HP-1-56	3	602

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Timothy K Peck	4/23/90	15:00	Ray Bueno
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

CLIENT COPY

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES + MOORE Phone 916-361-6160
Address 1700 TECH CENTER DRIVE STE 100
City, State, Zip SACTO, CA 95826

Client's or Representative's Signature _____
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044 PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) [signature]

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	REMARKS / LAB USE ONLY LAB NO.
MW-30	4/24/90	0935			MW-30	3	602/601
MW-29	4/24/90	0910			MW-29	3	601
HP-1	4/24/90	--			HP-1	3	602

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	4/24/90	1500	[signature]
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:

FIELD COPY

APPENDIX K
DESCRIPTION OF TECHNOLOGY PROCESS OPTIONS

SOIL PROCESS OPTIONS

No Action

Consideration of the site under current conditions, that is, the "No Action" case is required, as part of the screening process under the National Oil and Hazardous Substances Contingency Plan (NCP).

Institutional Actions

Access Restrictions: Access to the site is currently restricted by a fence and warning signs. Other techniques in addition to further secure the site, such as electronic monitoring, may be warranted and has been retained.

Land Use Limitations: Land use limitations could include restrictive covenants for current and future owners or operators which restrict certain types of land use, or covenants not to sell the property. This process option may be easily implemented and would be needed for implementation if an institutional action is retained in the remedial alternatives. This is intended to include certain land use limitations or development restrictions, which might not include actual notices on the grant deed.

Monitoring: Monitoring could consist of periodic soil and groundwater monitoring to document containment or loss of containment and to monitor cleanup effectiveness. Remedial actions that involve construction of containment facilities would require regular inspections by a registered engineer and land surveyor to identify deterioration of the containment facilities before effectiveness would be compromised. Any remedial alternative that did not include total site cleanup may require some monitoring. Monitoring would be easily implemented; therefore, it has been retained for development of alternatives.

Containment

Capping: Capping prevents infiltration of surface water through affected soils and infiltration to the groundwater, prevents or reduces leachate generation, prevents target chemicals from becoming airborne, prevents surface run-off of contaminated soil, and prevents direct contact with affected soil. A cap can

be a single layer of relatively impermeable and erosion resistant material such as clay, which is usually covered with soil and vegetation to keep it moist. Asphalt and concrete can also be used, and multi-media caps including synthetic membranes of polyvinyl chloride (PVC), chlorinated polyethylene, ethylene-propylene rubber, or other polymeric material may be used. This process option has been retained for development of remedial alternatives.

Revegetation: The establishment of a vegetative cover on the existing soil surface is a cost-effective method of stabilizing the surface of the site. Revegetation decreases erosion by wind and water and contributes to the development of a naturally fertile and stable surface environment. A systematic revegetation plan would include: selection of suitable plant species, seed bed preparation, seeding/planting, mulching and/or chemical stabilization, and fertilization and maintenance. Revegetation is not as effective as capping in controlling potential exposure pathways due to the requirements for irrigation to control dust and/or maintain vegetation in summer and the potential for leachate generation from limited infiltration. This process option has been retained for development of remedial alternatives. Revegetation may be used in less contaminated areas in combination with other primary remedial measures such as capping or grading.

Soil Treatment

Bioremediation: Bioremediation is a technique for treating contaminated soil by microbial degradation. Soil microorganisms degrade a variety of organic chemical compounds to harmless by-products, namely carbon dioxide and water. To maximize biological degradation, adequate levels of nutrients, water, aeration and other soil factors such as optimal pH, salinity, and temperature, must be maintained. In order to monitor and control these environmental factors, biological treatment cells must be constructed to carry out aerobic degradation of soils containing hydrocarbons. The process can also be performed in situ. Both above ground and in situ applications of this technology have been retained for development of remedial alternatives for removal of diesel contamination.

Soil Washing: Soil washing is a process in which the affected soil is fed into a unit in conjunction with the washing solution. The soil may either be washed in an above ground screening and washing system, a heap leach system, or on an HDPE liner. It is most effective for treating metals in soil. The washing

solution is chosen to remove the target chemicals and can include water, organic solvents, surfactants and pH adjustments. Dilute solutions of acids have been widely used in industrial processes to extract metal ions. Complexing and chelating agents may also be used in solution mining removal systems for heavy metals. Some commonly employed substances are citric acid, ethylenediaminetetraacetic acid (EDTA), and diethylenetriamine pentacetic acid (DTPA). The washed soils can subsequently be redeposited on the site. However, at this site, washed soils may need to be further remediated for removal of hydrocarbons to achieve remedial action objectives. The washing solution can be cleaned and recycled for the process.

The effectiveness of this method and the proper choice of wash solution for removal of arsenic and lead would have to be investigated by a treatability study if this technology is part of the selected remedial alternative. If there is a suitable wash solution which removes diesel hydrocarbons from the soil matrix to reach the acceptable cleanup levels, then this technology could be implemented in two stages to remove both metals and diesel hydocarbons. This process option has been retained for development of remedial alternatives. In such case, use of bioremediation will be eliminated from selected process options.

Soil Flushing: Organic and inorganic contaminants would be flushed from contaminated soil by means of an extraction process. Water or an aqueous solution would be injected into the area of contamination, and the contaminated fluid is pumped to the surface for removal, on-site treatment and re-injection. During flushing, contaminants would be mobilized into solution by dissolution or formation of an organic emulsion, or by chemical reaction with the flushing solution. Chelating agents used for in situ treatment would result in a stable metal-chelate complex which is resistant to decomposition and degradation.

An economically feasible soil flushing method may involve the recycling of the flushing fluid through the contaminated material, with makeup solvent being added to the system while a fraction of the flushing stream is routed to a portable wastewater treatment system. The advantages of the soil flushing process are that, if the soil is amenable to this technique, it could present an economical alternative to excavation of the soil prior to treatment. This option has been retained for further evaluation.

Fixation: This process would alter the physical and/or chemical state of the hazardous constituents within the soil rendering them less leachable, less toxic, and more easily handled, transported, and disposed. Cement-based processes involve the mining of Portland Cement with a soil slurry. This mixture hardens to form a rock-like mass which incorporates the hazardous constituents into the crystalline structure. Important design factors include: selection of appropriate solidification agent, solidification mixing ratios, curing time, and volume increase of solidified product. These factors are based on the specific waste being treated. The fixation of arsenic containing soils by fixation would require treatability studies. This process option has been retained for further evaluation.

Soil Vapor Extraction: The soil vapor extraction process would remove volatile organic compounds from the soils through extraction wells or perforated pipelines. Its performance can be enhanced with appropriately designed and placed air inlet facilities to replace soil gas removed by vacuum application to the contaminated mass. The hydrocarbon contamination at this site is mostly diesel (not volatile) and as such, this process has been screened out.

In Situ Vitrification: In this treatment method an electrical network is used to melt soil at temperatures of 1600 to 2000 degrees celsius. This process destroys organic chemicals in the soil and immobilizes inorganic constituents of the soil in the vitrified mass, which has the properties of glass. In situ vitrification would offer the greatest degree of containment compared to other solidification methods. This method is considered "best developed available technology" (BDAT) by EPA for soils containing arsenic. This technology is easily implementable at this site. However, large-scale effectiveness has not been demonstrated. In situ vitrification has been screened out.

Incineration: Thermal destruction is a treatment method which uses high temperature oxidation under controlled conditions to degrade a substance into products that generally include water, carbon dioxide, nitrogen oxides, hydrochloric acid, gases, and ash. The hazardous products of the thermal destruction would require air pollution control equipment to prevent release of undesirable species into the atmosphere.

The most widely used incineration technology is rotary kiln incineration. The process employs a long, inclined rotating tube into which wastes are introduced at the high end and agitated by rotation.

Agitation increases turbulence and combustion efficiency. Ash is removed from the low end of the kiln. Thermal destruction on-site will be difficult to implement and has been screened out. Off-site incineration has been retained for further process evaluation.

Soil Removal and Disposal

Excavation: Excavation of affected soils is generally accomplished with conventional heavy construction equipment. Excavation followed by land disposal or treatment is performed extensively in site remedial actions. There are no limitations on the chemical concentrations in soil which can be excavated. However, community and worker health and safety weigh heavily in the decision to excavate soil containing toxic materials. Moreover, excavation of large volumes of soil can create significant nuisance problems. A frequent practice is to excavate and remove "hot spots" and to use other remedial measures for less contaminated soils. This technology has been retained for further evaluation of process options.

Off-Site Disposal: Determining the feasibility of off-site disposal requires knowledge of state and federal regulations. Applicable handling, transportation, manifesting, and disposal requirements, under Titles 40 and 49 of the Code of Federal Regulations (CFR) and Titles 13 and 22 of the California Code of Regulations (CCR), must be complied with for all wastes that are transported off-site.

Landfilling of certain wastes is becoming increasingly difficult and expensive due to steadily growing regulatory control of this technology and decreasing availability of landfill space (RCRA Land Disposal Restrictions). However, the need for it may be unavoidable in circumstances where the wastes can not be effectively treated. Off-site disposal can almost totally eliminate the contamination at a site and the need for long-term monitoring. Few, if any of the contaminant concentrations found on-site are high enough to be subject to land ban limitations (40 CFR, Part 268 and 22 CCR, Article 6.5). This technology has been retained for development of remedial alternatives.

On-Site Disposal: On-site disposal of soil containing target chemicals above stated levels may involve the design and construction of a containment unit which complies with regulatory standards. The retention of residually contaminated soil which meets acceptable human and environmental health risk criteria has been retained because it is not considered "on-site disposal." However, as it applies to

materials that exceed regulatory criteria as "hazardous waste," this technology has been screened out because it is administratively infeasible for the site in question and may not be acceptable to the public.

GROUNDWATER PROCESS OPTIONS

INSTITUTIONAL ACTIONS

Zoning and Deed Restrictions - Zoning and deed restrictions could be applied to areas above or adjacent to contaminated groundwater. These restrictions would prohibit the drilling of wells into or through the impacted aquifer. Appropriate conditions or exemptions should be applied to these restrictions to allow the installation of monitoring wells. The objective of this action would be to prevent public exposure to contaminated groundwater. Since this option limits exposure pathways, it has been retained.

Monitoring - Monitoring could consist of periodic groundwater monitoring to document containment and cleanup effectiveness. Since any remedial alternative would require monitoring to document cleanup and is easily implemented, this technology has been retained.

CONTAINMENT

Subsurface Barriers - Low permeability cutoff walls or diversion barriers are installed below ground to contain, capture, or redirect groundwater flow in the vicinity of a site. The most commonly used subsurface barriers are slurry walls. Grouting may also be used specifically more to create horizontal barriers for sealing the bottom of contaminating sites. This technology has been screened from further analysis due to the depth of groundwater contamination.

Capping - Used to prevent infiltration of surface water through contaminated soils, prevent contaminants from becoming airborne and prevents surface runoff of contaminated sediments. A cap can be a single layer of relatively impermeable and erosion-resistent materials such as clay, which is usually covered with soil and vegetation to keep it moist. Asphalt and concrete can be used in areas where paving is required, and multi-media caps including synthetic membranes of polyvinyl chloride (PVC), chlorinated polyethylene, ethylene-propylene rubber, or other polymeric material may be used. Capping is screened out from further consideration because it does not provide any benefit to cleanup of the aquifer.

Hydraulic Containment - This process option is used to control the migration of groundwater and transport of contaminants. Extraction wells, injection/recharge wells, infiltration galleries, or

combinations of these could be used to modify the groundwater gradient and flow paths. This option is retained since it may halt plume migration and because various collection, treatment, and discharge alternatives may include the use of wells which may not be feasible. Hydraulic containment by infiltration is not implementable at this site due to the existence of a hardpan layer and is screened out.

COLLECTION

Extraction - Use of groundwater wells to pump groundwater from contaminated aquifer. This technology is readily implemented and has been retained.

Subsurface Drains - Subsurface drains include any type of buried conduit used to convey and collect aqueous discharges by gravity flow. They create a continuous zone of influence in which groundwater within this zone flows towards the drain. For deep contamination problems subsurface drains have limited applicability. This option has been screened out from further analysis.

PHYSICAL TREATMENT PROCESSES

Filtration - Filtration uses a porous substance through which liquids are passed to remove suspended solids. The porous filter media could be a fabric, a bed of granular material or a metal screen. Filter media may be pre-coated with a filter aid such as ground cellulose or diatomaceous earth. Filtration would be used as a pretreatment technique in most water treatment systems and has been retained for further consideration.

Flocculation - Flocculation employs a chemical additive which adheres to suspended solids and other particles too large to remain in suspension. Used primarily in precipitation of inorganics, such as metals, this process option has been retained for further consideration.

CHEMICAL PRETREATMENT PROCESS

Chemical Precipitation - Used to achieve precipitation of metals. The pH is typically adjusted with addition of lime, and the resulting insoluble metal hydroxides are then removed using standard

flocculating techniques. The resulting residuals may be hazardous. This process option has been retained for further consideration.

THERMAL DESTRUCTION

Thermal destruction is a treatment method which uses high temperature oxidation under controlled conditions to degrade a substance into products that generally include CO_2, H_2O vapor, SO_2, NO_x, HCl gases and ash. The hazardous products of the thermal destruction such as particulates, SO_2, NO_x, HCl, and products of incomplete combustion require air pollution control equipment to prevent their release into the atmosphere. Incineration can be used to destroy organic contaminants in liquid, gaseous and solid waste streams.

Use of incineration for large volume of low solvent contaminated is not easily implementable and high in capital cost and has been screened out for treatment of groundwater.

BIOLOGICAL TREATMENT

The function of biological treatment is to remove organic matter from the waste stream through microbial degradation. Biological treatment can be performed ex-situ (extract and treat) or in-situ. The process can be performed under aerobic (oxygen present) or anaerobic conditions. Halogen substituted compounds are the most refractory to aerobic biodegradation. Therefore, biological treatment of extracted groundwater has been screened out as not being effective.

In-situ bioreclamation of the aquifer may have applicability for the off-site plume and has been retained for development of alternatives. However, pilot scale treatability tests would have to be performed.

EFFLUENT POLISHING PROCESSES

The process of adsorption onto activated carbon involves contacting the liquid with the carbon, usually by flow through a series of packed bed reactors. The internal pores of the carbon mixture will

absorb the organic constituents. Adsorption depends on the strength of molecular attraction, molecular weight, Ph, surface area, solubility and polarity of the adsorbate.

The "spent" carbon must either be replaced with virgin carbon, or removed and thermally regenerated or steam regenerated on-site. Most treatment applications involve the use of adsorption units containing granular activated carbon (GAC) which operate in a downflow series mode.

This technology is potentially applicable and may be effective in removing the organic contaminants from groundwater and is retained.

Air Stripping - Air stripping is used to remove volatile organics from contaminated water. Generally, components with Henry's Law constants of greater than 0.003 can be effectively removed by air stripping (Conway and Ross, 1980). This includes such components as 1,1,1-TCA, TCE, DCE, and chlorobenzene. The feed stream must be low in suspended solids and may require pH adjustment to improve transfer to the gas phase. Stripping is often only partially effective and must be followed by another process such as carbon adsorption. Use of vapor phase carbon for treatment of off-gas may also be required. This process option has been retained.

Reverse Osmosis - Reverse osmosis is an effective treatment for removal of dissolved solids presuming appropriate pretreatment has been performed for suspended solids removal, pH adjustments, and removal of oxidizers, oil and grease. In osmosis, solvent is forced through a semi-permeable membrane from a dilute concentration to a more concentrated solution. The application of high pressure to the concentrated side causes solvent flow away from the solution. The membrane must be compatible with the chemical and physical characteristics of the liquid waste stream. Suspended solids and some organics may clog the membrane. Reverse osmosis has not been widely used for treatment of hazardous waste stream. The regenerant is a concentrated hazardous solution and has to be treated. This process option has been screened from further analysis.

Oxidation UV/H_2O_2) - Chemical oxidation process which employs ultraviolet (UV) light to aid cleavage of carbon-carbon and carbon-chlorine bonds. The chemistry of the UV-Hydrogen process begins with the absorption of UV light by hydrogen peroxide. When hydrogen peroxide absorbs UV light of a

suitable wavelength, the molecule dissociates to form hydroxyl radicals. The hydroxyl radical is an extremely potent oxidizing agent capable of affecting the complete oxidation of organics to form carbon dioxide, water and inorganic salts. This process option has been successfully used for the removal of phenols and chlorinated ethanes in water (Hager, 1985; Hager, 1986) and has been retained.

DISCHARGE

On-Site Recharge Wells - Treated water is pumped through recharge wells into groundwater aquifers. The clean water can serve to raise water tables, thereby aiding contaminated groundwater extraction. Recharge wells are typically placed upgradient of contamination in permeable soils. This process option has been retained for further screening.

Discharge POTW - Extracted groundwater could potentially (either directly or after pre-treatment) be discharged to the publicly owned treatment works (POTW) operated by the City of Sacramento. This has been retained for development alternatives.

Surface Water - Nearby surface waters may be capable of accepting treated water as permitted by the Regional Water Quality Control Board. Discharge to surface water may require construction of a pipeline or channel. This process option has been retained for more detailed evaluation.

Reclamation Use - There is potential for use of untreated, or partially treated or polished water to be used for irrigation on-site or off-site. It may also be potentially used with soil remediation phase for use as dust control and/or as treatment water for soil washing process - this option has been retained.

RESIDUAL MANAGEMENT OR TREATMENT

Thermal Destruction - Treatment residuals from the site could be burned on-site or off-site using a variety of combustion technologies. The most widely used technology is rotary kiln incineration. The technique employs a long, inclined rotating tube into which wastes are introduced at the high end and agitated by rotation. Agitation increases turbulence and combustion efficiency. Ash is removed from the low end of the kiln. Thermal destruction has been retained for further evaluation.

Landfill - Treatment residuals could be disposed at secure landfills either on-site or off-site. This technique provides long-term storage of the wastes in a landfill constructed to meet regulatory standards for TSD facilities. This option has been retained for further screening.

Carbon Regeneration - The spent carbon can either be sent off-site for regeneration or regenerated on line by use of steam. This option has been retained for further screening.

Appendix I

APPENDIX I

LABORATORY ANALYSES REPORTS

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED
1989
DAMES & MOORE

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742
Date Collected: 08/14/89
Date Received: 08/16/89
Date Analyzed: 10/11/89
Date Reported: 10/12/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47357	P237X02.0	TPH	197,000	1200
47358	P237X02.5	TPH	8,000	60
47359	P237X05.0	TPH	95	6
47360	P232X06.5	TPH	76,000	600
47361	P232X07.5	TPH	84	6
47362	P232X11.0	TPH	ND	6
47363	P234X06.0	TPH	11,000	60
47364	P234X09.0	TPH	4,600	30
47365	P234X14.0	TPH	ND	6
47367	P248X00.5	TPH	588.0	6
47368	P248X01.0	TPH	115	6

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47371	P246X01.5	TPH	223	6
47372	P246X05.0	TPH	100	6
47373	P246X01.0	TPH	9,000	60
47376	P238X01.5	TPH	ND	6
47380	P238X03.0	TPH	ND	6

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742
Date Collected: 08/14/89 Date Received: 08/16/89
Date Analyzed: 08/21/89 Date Reported: 10/12/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
47376	P238X01.5	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	105	mg/kg	10,000	0.20	mg/kg
		BE	0.24	mg/kg	75	0.20	mg/kg
		CD	2.03	mg/kg	100	0.10	mg/kg
		CO	11.3	mg/kg	8,000	0.40	mg/kg
		CR	32.3	mg/kg	2,500	0.40	mg/kg
		CU	24.8	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	29.3	mg/kg	2,000	1.0	mg/kg
		PB	23.5	mg/kg	1,000	1.0	mg/kg
		SB	ND		500	10	mg/kg
		TL	ND		700	4.0	mg/kg
		V	42.4	mg/kg	2,400	0.40	mg/kg
		ZN	51.0	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742
Date Collected: 08/14/89
Date Received: 08/16/89
Date Analyzed: 08/25/89
Date Reported: 10/12/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47356	P238X08.0	AS	10.8	500	0.60
		CU	53.8	2,500	0.40
		PB	69.2	1,000	1.4
47357	P237X02.0	AS	2.3	500	0.60
		CU	42.4	2,500	0.40
		PB	58.2	1,000	1.4
47358	P237X02.5	AS	8.38	500	0.60
		CU	165	2,500	0.40
		PB	1,290	1,000 *	7.0
47359	P237X05.0	AS	9.30	500	0.60
		CU	34.6	2,500	0.40
		PB	27.0	1,000	1.4
47360	P232X06.5	AS	7.46	500	0.60
		CU	868	2,500	4.0
		PB	854	1,000	1.4
47361	P232X07.5	AS	10.0	500	0.60
		CU	42.8	2,500	0.40
		PB	48.0	1,000	1.4

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Laboratory Job No.: 893742

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47362	P232X11.0	AS	8.38	500	0.60
		CU	29.2	2,500	0.40
		PB	17.2	1,000	1.4
47363	P234X06.0	AS	15.7	500	0.60
		CU	752	2,500	4.0
		PB	972	1,000	1.4
47364	P234X09.0	AS	9.30	500	0.60
		CU	23.0	2,500	0.40
		PB	14.2	1,000	1.4
47365	P234X14.0	AS	8.38	500	0.60
		CU	18.6	2,500	0.40
		PB	11	1,000	1.4
47366	P248X00.0	AS	14.2	500	0.60
		CU	518	2,500	4.0
		PB	542	1,000	1.4
47367	P248X00.5	AS	15.3	500	0.60
		CU	698	2,500	4.0
		PB	510	1,000	1.4
47368	P248X01.0	AS	9.50	500	0.60
		CU	29.0	2,500	0.40
		PB	14.8	1,000	1.4
47369	P246X00.0	AS	74.4	500	6.0
		CU	1,040	2,500	4.0
		PB	496	1,000	1.4
47370	P247X00.0	AS	83.6	500	6.0
		CU	1,120	2,500	4.0
		PB	1,590	1,000 *	14

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LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47371	P246X01.5	AS	12.7	500	0.60
		CU	30.8	2,500	0.40
		PB	21.4	1,000	1.4
47372	P246X05.0	AS	9.30	500	0.60
		CU	39.0	2,500	0.40
		PB	24.2	1,000	1.4
47373	P246X01.0	AS	250	500	12
		CU	1,040	2,500	8.0
		PB	1,290	1,000 *	14
47374	P237X00.0	AS	11.9	500	0.60
		CU	52.0	2,500	0.40
		PB	7.0	1,000	1.4
47375	P238X00.0	AS	8.38	500	0.60
		CU	54.2	2,500	0.40
		PB	94.8	1,000	1.4
47376	P238X01.0	AS	8.56	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
47377	P238Y01.5	AS	8.76	500	0.60
		CU	24.4	2,500	0.40
		PB	33.2	1,000	1.4
47378	P238FD1.5	AS	8.20	500	0.60
		CU	25.4	2,500	0.40
		PB	42.4	1,000	1.4
47379	P238MD1.5	AS	8.94	500	0.60
		CU	26.6	2,500	0.40
		PB	35.0	1,000	1.4

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Laboratory Job No.: 893742

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47380	P238X03.0	AS	13.8	500	0.60
		CU	14.4	2,500	0.40
		PB	13	1,000	1.4

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-5245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742
Date Collected: 08/14/89 Date Received: 08/16/89
Date Analyzed: 08/17/89 Date Reported: 10/12/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
47356	P238X08.0	SOIL	TRACE	CHRYSOTILE	80	QUARTZ
					20	CLAY
47357	P237X02.0	SOIL	NONE DETECTED		65	ORGANIC MATERIAL
					20	DIATOMACEOUS EARTH
					10	QUARTZ
					5	CELLULOSE FIBERS
47360	P232X06.5	SOIL	NONE DETECTED		65	ORGANIC MATERIAL
					35	CELLULOSE FIBERS
47373	P246X01.0	SOIL	TRACE	CHRYSOTILE	60	QUARTZ
			TRACE	AMOSITE	25	CHARCOAL
					15	CLAY

TRACE=SAMPLE CONTAINS BETWEEN 0.1 TO 1% ASBESTOS

ANALYST:MIKE GRAY

Michael Gray

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 806024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/14/89
Date Extracted: 08/21/89
Date Analyzed: 08/21/89

Laboratory Job No.: 893742
Date Received: 08/16/89
Date Reported: 10/12/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
47357 P237X02.0 GASOLINE	ND	1.0 mg/kg
47358 P237X02.5 GASOLINE	ND	1.0 mg/kg
47359 P237X05.0 GASOLINE	ND	1.0 mg/kg
47360 P232X06.5 GASOLINE	100 mg/kg	5.7 mg/kg
47361 P232X07.5 GASOLINE	ND	1.0 mg/kg
47362 P232X11.0 GASOLINE	ND	1.0 mg/kg
47363 P234X06.0 GASOLINE	39.0 mg/kg	1.0 mg/kg
47364 P234X09.0 GASOLINE	28.0 mg/kg	2.7 mg/kg
47365 P234X14.0 GASOLINE	ND	1.0 mg/kg
47367 P248X00.5 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742

LABNO	SMPLNO-ID	RESULTS	DET.LIM
47368	P248X01.0 GASOLINE	ND	1.0 mg/kg
47371	P246X01.5 GASOLINE	1.7 mg/kg	1.0 mg/kg
47372	P246X05.0 GASOLINE	3.0 mg/kg	1.0 mg/kg
47373	P246X01.0 GASOLINE	4.2 mg/kg	1.0 mg/kg
47376	P238X01.5 GASOLINE	ND	1.0 mg/kg
47380	P238X03.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/14/89
Date Extracted: 08/30/89
Date Analyzed: 09/17/89

Laboratory Job No.: 893742
Date Received: 08/16/89
Date Reported: 10/12/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47360 P232X06.5				
NAPHTHALENE	ND		3.5	mg/kg
ACENAPHTHYLENE	ND		5.0	mg/kg
ACENAPHTHENE	ND		6.9	mg/kg
FLUORENE	ND		0.75	mg/kg
47363 P234X06.0				
NAPHTHALENE	ND		3.5	mg/kg
ACENAPHTHYLENE	ND		5.0	mg/kg
ACENAPHTHENE	17	mg/kg	6.9	mg/kg
FLUORENE	11.	mg/kg	0.75	mg/kg
47371 P246X01.5				
NAPHTHALENE	ND		0.069	mg/kg
ACENAPHTHYLENE	0.13	mg/kg	0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg
47373 P246X01.0				
NAPHTHALENE	ND		3.5	mg/kg
ACENAPHTHYLENE	ND		5.0	mg/kg
ACENAPHTHENE	52	mg/kg	6.9	mg/kg
FLUORENE	ND		0.75	mg/kg
47376 P238X01.5				
NAPHTHALENE	ND		0.069	mg/kg
ACENAPHTHYLENE	ND		0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47360 P232X06.5				
PHENANTHRENE	4.8	mg/kg	1.0	mg/kg
ANTHRACENE	ND		2.6	mg/kg
FLUORANTHENE	2.6	mg/kg	0.061	mg/kg
PYRENE	1.9	mg/kg	0.16	mg/kg
BENZO(A)ANTHRACENE	0.36	mg/kg	0.025	mg/kg
CHRYSENE	0.66	mg/kg	0.035	mg/kg
BENZO(B)FLUORANTHENE	0.092	mg/kg	0.040	mg/kg
BENZO(K)FLUORANTHENE	0.029	mg/kg	0.011	mg/kg
BENZO(A)PYRENE	0.068	mg/kg	0.021	mg/kg
DIBENZ(AH)ANTHRACENE	0.20	mg/kg	0.039	mg/kg
BENZO(GHI)PERYLENE	0.047	mg/kg	0.035	mg/kg
INDENO(123CD)PYRENE	0.99	mg/kg	0.15	mg/kg
47363 P234X06.0				
PHENANTHRENE	27	mg/kg	1.0	mg/kg
ANTHRACENE	ND		2.6	mg/kg
FLUORANTHENE	9.3	mg/kg	0.061	mg/kg
PYRENE	10	mg/kg	0.16	mg/kg
BENZO(A)ANTHRACENE	0.81	mg/kg	0.025	mg/kg
CHRYSENE	5.80	mg/kg	0.035	mg/kg
BENZO(B)FLUORANTHENE	0.81	mg/kg	0.040	mg/kg
BENZO(K)FLUORANTHENE	0.59	mg/kg	0.011	mg/kg
BENZO(A)PYRENE	1.4	mg/kg	0.021	mg/kg
DIBENZ(AH)ANTHRACENE	0.040	mg/kg	0.039	mg/kg
BENZO(GHI)PERYLENE	0.74	mg/kg	0.035	mg/kg
INDENO(123CD)PYRENE	1.0	mg/kg	0.15	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893742

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47371 P246X01.5				
PHENANTHRENE	0.11	mg/kg	0.021	mg/kg
ANTHRACENE	ND		0.052	mg/kg
FLUORANTHENE	0.0031	mg/kg	0.0012	mg/kg
PYRENE	0.0038	mg/kg	0.0032	mg/kg
BENZO(A)ANTHRACENE	0.0013	mg/kg	0.00049	mg/kg
CHRYSENE	0.0010	mg/kg	0.00069	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00081	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00023	mg/kg
BENZO(A)PYRENE	0.0020	mg/kg	0.00042	mg/kg
DIBENZ(AH)ANTHRACENE	0.0017	mg/kg	0.00077	mg/kg
BENZO(GHI)PERYLENE	ND		0.00070	mg/kg
INDENO(123CD)PYRENE	0.021	mg/kg	0.0031	mg/kg
47373 P246X01.0				
PHENANTHRENE	6.2	mg/kg	1.0	mg/kg
ANTHRACENE	ND		2.6	mg/kg
FLUORANTHENE	0.58	mg/kg	0.061	mg/kg
PYRENE	0.54	mg/kg	0.16	mg/kg
BENZO(A)ANTHRACENE	0.19	mg/kg	0.025	mg/kg
CHRYSENE	0.17	mg/kg	0.035	mg/kg
BENZO(B)FLUORANTHENE	ND		0.040	mg/kg
BENZO(K)FLUORANTHENE	ND		0.011	mg/kg
BENZO(A)PYRENE	0.12	mg/kg	0.021	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.039	mg/kg
BENZO(GHI)PERYLENE	ND		0.035	mg/kg
INDENO(123CD)PYRENE	1.5	mg/kg	0.15	mg/kg

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Laboratory Job No.: 893742

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47376 P238X01.0				
PHENANTHRENE	ND		0.021	mg/kg
ANTHRACENE	ND		0.052	mg/kg
FLUORANTHENE	ND		0.0012	mg/kg
PYRENE	ND		0.0032	mg/kg
BENZO(A)ANTHRACENE	ND		0.00049	mg/kg
CHRYSENE	0.0014	mg/kg	0.00069	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00081	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00023	mg/kg
BENZO(A)PYRENE	0.0016	mg/kg	0.00042	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00077	mg/kg
BENZO(GHI)PERYLENE	ND		0.00070	mg/kg
INDENO(123CD)PYRENE	0.0063	mg/kg	0.0031	mg/kg

PLEASE NOTE THAT DATA ARE REPORTED IN TWO GROUPS FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893774
Date Collected: 08/15/89
Date Analyzed: 08/28/89
Date Received: 08/17/89
Date Reported: 09/27/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47655	MW13B01.5	TPH	808	6
47656	MW13B03.0	TPH	1,980	30
47657	MW13B04.5	TPH	1,070	6
47658	MW13B06.0	TPH	ND	6
47659	MW13X28.0	TPH	ND	6

ANALYST:JAN TOISTER

RECEIVED
OCT 04 1989
DAMES & MOORE

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893774
Date Collected: 08/15/89
Date Received: 08/17/89
Date Analyzed: 08/29/89
Date Reported: 09/27/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47654	MW13B00.0	AS	3.3	500	0.60
		PB	13	1,000	1.4
		CU	7.80	2,500	0.40
47655	MW13B01.5	AS	6.90	500	0.60
		PB	12	1,000	1.4
		CU	22.4	2,500	0.40
47656	MW13B03.0	AS	6.72	500	0.60
		PB	11	1,000	1.4
		CU	28.0	2,500	0.40
47657	MW13B04.5	AS	6.90	500	0.60
		PB	13	1,000	1.4
		CU	28.8	2,500	0.40
47658	MW13B06.0	AS	7.28	500	0.60
		PB	13	1,000	1.4
		CU	30.2	2,500	0.40

CCU LABS
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3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-5245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893774

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47659	MW13X28.0	AS	7.28	500	0.60
		PB	9.6	1,000	1.4
		CU	30.6	2,500	0.40

ANALYST:PRECY ROBINSON

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/15/89
Date Extracted: 08/24/89
Date Analyzed: 08/24/89

Laboratory Job No.: 893774
Date Received: 08/17/89
Date Reported: 09/27/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
47655	MW13B01.5		
	GASOLINE	470 mg/kg	1.3 mg/kg
47656	MW13B03.0		
	GASOLINE	1,700 mg/kg	2.0 mg/kg
47657	MW13B04.5		
	GASOLINE	40047725kg	1.0 mg/kg
47658	MW13B06.0		
	GASOLINE	1.2 mg/kg	1.0 mg/kg
47659	MW13X28.0		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/15/89
Date Extracted: 08/30/89
Date Analyzed: 09/21/89

Laboratory Job No.: 893774
Date Received: 08/17/89
Date Reported: 09/27/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47656 MW13B03.0				
NAPHTHALENE	0.56	mg/kg	0.069	mg/kg
ACENAPHTHYLENE	0.22	mg/kg	0.099	mg/kg
ACENAPHTHENE	0.24	mg/kg	0.14	mg/kg
FLUORENE	0.328	mg/kg	0.015	mg/kg
47656 MW13B03.0				
PHENANTHRENE	1.31	mg/kg	0.021	mg/kg
ANTHRACENE	0.583	mg/kg	0.048	mg/kg
FLUORANTHENE	ND		0.0012	mg/kg
PYRENE	0.023	mg/kg	0.0041	mg/kg
BENZO(A)ANTHRACENE	0.16	mg/kg	0.00046	mg/kg
CHRYSENE	0.028	mg/kg	0.00067	mg/kg
BENZO(B)FLUORANTHENE	0.050	mg/kg	0.00079	mg/kg
BENZO(K)FLUORANTHENE	0.036	mg/kg	0.00022	mg/kg
BENZO(A)PYRENE	0.052	mg/kg	0.00035	mg/kg
DIBENZ(AH)ANTHRACENE	0.021	mg/kg	0.00075	mg/kg
BENZO(GHI)PERYLENE	0.025	mg/kg	0.00076	mg/kg
INDENO(123CD)PYRENE	0.128	mg/kg	0.0030	mg/kg

ANALYST:TIM AOKI

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Telephone: (707) 763-5245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893773
Date Collected: 08/16/89
Date Received: 08/17/89
Date Analyzed: 08/28/89
Date Reported: 10/12/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47641	P236X02.5	TPH	968.	6
47642	P235X02.5	TPH	ND	6
47643	P235X03.0	TPH	ND	6
47644	P235X05.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893773
Date Collected: 08/16/89
Date Received: 08/17/89
Date Analyzed: 08/29/89
Date Reported: 10/12/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47641	P236X02.5	AS	6.72	500	0.60
		CU	68.0	2,500	0.40
		PB	13	1,000	1.4
47642	P235X02.5	AS	7.10	500	0.60
		CU	42.8	2,500	0.40
		PB	22.2	1,000	1.4
47643	P235X03.0	AS	6.90	500	0.60
		CU	35.2	2,500	0.40
		PB	38.6	1,000	1.4
47644	P235X05.0	AS	7.28	500	0.60
		CU	35.2	2,500	0.40
		PB	17.2	1,000	1.4
47645	P235X00.0	AS	6.72	500	0.60
		CU	34.2	2,500	0.40
		PB	28.2	1,000	1.4
47646	P236X00.0	AS	6.90	500	0.60
		CU	37.6	2,500	0.40
		PB	49.0	1,000	1.4

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Telephone: (707) 763-5245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893773

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47647	P146X01.0	AS	6.90	500	0.60
		CU	30.4	2,500	0.40
		PB	14.0	1,000	1.4
47648	P147X00.0	AS	6.00	500	0.60
		CU	67.6	2,500	0.40
		PB	165	1,000	1.4
47649	P146X00.0	AS	7.46	500	0.60
		CU	55.0	2,500	0.40
		PB	171	1,000	1.4
47650	P147X01.0	AS	7.28	500	0.60
		CU	30.6	2,500	0.40
		PB	18.2	1,000	1.4
47651	P148X00.0	AS	6.54	500	0.60
		CU	19.8	2,500	0.40
		PB	29.0	1,000	1.4
47652	P149X00.0	AS	6.54	500	0.60
		CU	22.0	2,500	0.40
		PB	26.8	1,000	1.4
47653	P148X00.3	AS	8.76	500	0.60
		CU	21.2	2,500	0.40
		PB	9.6	1,000	1.4

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893773
Date Collected: 08/16/89
Date Received: 08/17/89
Date Analyzed: 09/13/89
Date Reported: 10/12/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
47650	P147X01.0	SOIL	NONE DETECTED		85	QUARTZ
					15	CLAY

ANALYST:MIKE GRAY

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/16/89
Date Extracted: 08/24/89
Date Analyzed: 08/24/89

Laboratory Job No.: 893773
Date Received: 08/17/89
Date Reported: 10/12/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
47641 P236X02.5 GASOLINE	ND	1.0 mg/kg
47642 P235X02.5 GASOLINE	ND	1.0 mg/kg
47643 P235X03.0 GASOLINE	ND	1.0 mg/kg
47644 P235X05.0 GASOLINE	ND	1.0 mg/kg

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/16/89
Date Extracted: 08/30/89
Date Analyzed: 09/17/89

Laboratory Job No.: 893773
Date Received: 08/17/89
Date Reported: 10/12/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
47641	P236X02.5				
	NAPHTHALENE	ND		0.069	mg/kg
	ACENAPHTHYLENE	ND		0.099	mg/kg
	ACENAPHTHENE	ND		0.14	mg/kg
	FLUORENE	ND		0.015	mg/kg
47643	P235X03.0				
	NAPHTHALENE	ND		0.069	mg/kg
	ACENAPHTHYLENE	ND		0.099	mg/kg
	ACENAPHTHENE	ND		0.14	mg/kg
	FLUORENE	ND		0.015	mg/kg
47641	P236X02.5				
	PHENANTHRENE	ND		0.021	mg/kg
	ANTHRACENE	ND		0.052	mg/kg
	FLUORANTHENE	ND		0.0012	mg/kg
	PYRENE	ND		0.0032	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00049	mg/kg
	CHRYSENE	ND		0.00069	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00081	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00023	mg/kg
	BENZO(A)PYRENE	0.0014	mg/kg	0.00042	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00077	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00070	mg/kg
	INDENO(123CD)PYRENE	.021	mg/kg	0.0031	mg/kg

GC/LAB
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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893773

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47643 P235X03.0				
PHENANTHRENE	ND		0.021	mg/kg
ANTHRACENE	0.069	mg/kg	0.052	mg/kg
FLUORANTHENE	0.012	mg/kg	0.0012	mg/kg
PYRENE	0.0060	mg/kg	0.0032	mg/kg
BENZO(A)ANTHRACENE	0.0019	mg/kg	0.00049	mg/kg
CHRYSENE	ND		0.00069	mg/kg
BENZO(B)FLUORANTHENE	0.0038	mg/kg	0.00081	mg/kg
BENZO(K)FLUORANTHENE	0.0019	mg/kg	0.00023	mg/kg
BENZO(A)PYRENE	0.0021	mg/kg	0.00042	mg/kg
)IBENZ(AH)ANTHRACENE	ND		0.00077	mg/kg
BENZO(GHI)PERYLENE	0.0036	mg/kg	0.00070	mg/kg
INDENO(123CD)PYRENE	ND		0.0031	mg/kg

PLEASE NOTE THAT DATA ARE REPORTED IN TWO GROUPS FOR EACH SAMPLE.
THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893789
Date Collected: 08/17/89
Date Received: 08/18/89
Date Analyzed: 08/28/89
Date Reported: 09/27/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47746	P150X00.0	TPH	ND	6
47753	P152X01.5	TPH	130,000	600
47755	MW14X06.0	TPH	ND	6
47756	MW14X11.0	TPH	ND	6
47758	P151X06.0	TPH	800	6

ANALYST:JAN TOISTER

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THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893789
Date Collected: 08/17/89
Date Received: 08/18/89
Date Analyzed: 08/21/89
Date Reported: 09/27/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
47746	P150X00.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	62.8	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	2.31	mg/kg	100	0.100	mg/kg
	CO	10.2	mg/kg	8,000	0.40	mg/kg
	CR	29.9	mg/kg	2,500	0.40	mg/kg
	CU	21.1	mg/kg	2,500	0.20	mg/kg
	MO	0.66	mg/kg	3,500	0.40	mg/kg
	NI	35.0	mg/kg	2,000	1.00	mg/kg
	PB	13.9	mg/kg	1,000	1.00	mg/kg
	SB	ND		500	10.0	mg/kg
	TL	ND		700	4.0	mg/kg
	V	32.7	mg/kg	2,400	0.40	mg/kg
	ZN	61.0	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893789
Date Collected: 08/17/89
Date Received: 08/18/89
Date Analyzed: 08/30/89
Date Reported: 09/27/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47746	P150X00.0	AS	12.8	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
47747	P150Y00.0	AS	11.0	500	0.60
		CU	17.4	2,500	0.40
		PB	21.2	1,000	1.4
47748	P150MD0.0	AS	11.3	500	0.60
		CU	15.6	2,500	0.40
		PB	17.0	1,000	1.4
47749	P150FD0.0	AS	11.5	500	0.60
		CU	17.2	2,500	0.40
		PB	23.0	1,000	1.4
47750	P150X07.5	AS	6.54	500	0.60
		CU	21.4	2,500	0.40
		PB	8.4	1,000	1.4
47751	P151X00.0	AS	9.86	500	0.60
		CU	101	2,500	0.40
		PB	126	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893789

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47752	P152X00.0	AS	9.86	500	0.60
		CU	148	2,500	0.40
		PB	458	1,000	1.4
47753	P152X01.5	AS	3.4	500	0.60
		CU	49.0	2,500	0.40
		PB	46.6	1,000	1.4
47757	P152X05.0	AS	10.0	500	0.60
		CU	31.4	2,500	0.40
		PB	15.6	1,000	1.4
47758	P151X06.0	AS	7.46	500	0.60
		CU	37.4	2,500	0.40
		PB	29.6	1,000	1.4
47759	P149X04.0	AS	6.54	500	0.60
		CU	21.8	2,500	0.40
		PB	17.6	1,000	1.4

ANALYST:PRECY ROBINSON

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-5245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893789
Date Collected: 08/17/89
Date Received: 08/18/89
Date Analyzed: 09/13/89
Date Reported: 09/27/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
47754	P152X03.0	SOIL	NONE DETECTED		65	QUARTZ
					15	CLAY
					15	ORGANIC MATERIAL
					5	DIATOMACEOUS EARTH

Olivia B. Alejandro
ANALYST:MIKE GRAY

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/17/89
Date Extracted: 08/30/89
Date Analyzed: 09/21/89

Laboratory Job No.: 893789
Date Received: 08/18/89
Date Reported: 09/27/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47746 P150X00.0				
NAPHTHALENE	ND		0.069	mg/kg
ACENAPHTHYLENE	ND		0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg
47753 P152X01.5				
NAPHTHALENE	ND		3.5	mg/kg
ACENAPHTHYLENE	ND		5.0	mg/kg
ACENAPHTHENE	ND		6.9	mg/kg
FLUORENE	ND		0.75	mg/kg
47746 P150X00.0				
PHENANTHRENE	0.053	mg/kg	0.021	mg/kg
ANTHRACENE	ND		0.048	mg/kg
FLUORANTHENE	0.0457	mg/kg	0.0012	mg/kg
PYRENE	0.0779	mg/kg	0.0041	mg/kg
BENZO(A)ANTHRACENE	0.018	mg/kg	0.00046	mg/kg
CHRYSENE	0.0012	mg/kg	0.00067	mg/kg
BENZO(B)FLUORANTHENE	0.0261	mg/kg	0.00079	mg/kg
BENZO(K)FLUORANTHENE	.014		0.00022	mg/kg
BENZO(A)PYRENE	0.0220	mg/kg	0.00035	mg/kg
DIBENZ(AH)ANTHRACENE	0.0035	mg/kg	0.00075	mg/kg
BENZO(GHI)PERYLENE	0.021	mg/kg	0.00076	mg/kg
INDENO(123CD)PYRENE	0.018	mg/kg	0.0030	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893789

LABNO	SMPLNO-ID	RESULTS	DET.LIM
47753	P152X01.5		
	PHENANTHRENE	ND	1.1 mg/kg
	ANTHRACENE	ND	2.4 mg/kg
	FLUORANTHENE	ND	0.058 mg/kg
	PYRENE	0.75 mg/kg	0.20 mg/kg
	BENZO(A)ANTHRACENE	0.073 mg/kg	0.023 mg/kg
	CHRYSENE	0.15 mg/kg	0.034 mg/kg
	BENZO(B)FLUORANTHENE	0.36 mg/kg	0.040 mg/kg
	BENZO(K)FLUORANTHENE	0.176 mg/kg	0.011 mg/kg
	BENZO(A)PYRENE	0.201 mg/kg	0.017 mg/kg
	DIBENZ(AH)ANTHRACENE	0.895 mg/kg	0.038 mg/kg
	BENZO(GHI)PERYLENE	0.20 mg/kg	0.038 mg/kg
	INDENO(123CD)PYRENE	0.20 mg/kg	0.15 mg/kg

ANALYST:TIM AOKI

See Ammended Report

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO.
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89
Date Received: 08/22/89
Date Analyzed: 09/06/89
Date Reported: 10/25/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
48555	P162X00.5	TPH	ND	6
48557	P163X00.5	TPH	ND	6
48559	P153X03.0	TPH	ND	6
48561	P154X01.5	TPH	ND	6
48575	P179X00.0	TPH	130	6
48579	P179X02.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

EB.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89
Date Received: 08/22/89
Date Analyzed: 08/24/89
Date Reported: 10/25/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48554	P162X00.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	136	mg/kg	10,000	0.20	mg/kg
		BE	0.22	mg/kg	75	0.20	mg/kg
		CD	2.12	mg/kg	100	0.098	mg/kg
		CO	11.1	mg/kg	8,000	0.39	mg/kg
		CR	34.1	mg/kg	2,500	0.39	mg/kg
		CU	34.9	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.39	mg/kg
		NI	33.3	mg/kg	2,000	0.98	mg/kg
		PB	60.2	mg/kg	1,000	0.98	mg/kg
		SB	ND		500	9.8	mg/kg
		TL	ND		700	3.9	mg/kg
		V	39.3	mg/kg	2,400	0.39	mg/kg
		ZN	88.6	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48555	P162X00.5	SOIL			CA TTLC		
	AG		ND		500	0.20	mg/kg
	BA		149	mg/kg	10,000	0.20	mg/kg
	BE		0.31	mg/kg	75	0.20	mg/kg
	CD		2.35	mg/kg	100	0.098	mg/kg
	CO		15.1	mg/kg	8,000	0.39	mg/kg
	CR		40.5	mg/kg	2,500	0.39	mg/kg
	CU		26.9	mg/kg	2,500	0.20	mg/kg
	MO		ND		3,500	0.39	mg/kg
	NI		37.9	mg/kg	2,000	0.98	mg/kg
	PB		ND		1,000	0.98	mg/kg
	SB		ND		500	9.8	mg/kg
	TL		ND		700	3.9	mg/kg
	V		49.9	mg/kg	2,400	0.39	mg/kg
	ZN		46.0	mg/kg	5,000	0.20	mg/kg
48556	P163X00.0	SOIL			CA TTLC		
	AG		0.51	mg/kg	500	0.20	mg/kg
	BA		471	mg/kg	10,000	0.20	mg/kg
	BE		ND		75	0.20	mg/kg
	CD		3.74	mg/kg	100	0.099	mg/kg
	CO		13.0	mg/kg	8,000	0.40	mg/kg
	CR		35.8	mg/kg	2,500	0.40	mg/kg
	CU		277	mg/kg	2,500	0.20	mg/kg
	MO		18.5	mg/kg	3,500	0.40	mg/kg
	NI		38.4	mg/kg	2,000	0.99	mg/kg
	PB		405	mg/kg	1,000	0.99	mg/kg
	SB		ND		500	9.9	mg/kg
	TL		ND		700	4.0	mg/kg
	V		29.0	mg/kg	2,400	0.40	mg/kg
	ZN		456	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48557	P163X00.5	SOIL			CA TTLC		
		AG	0.22	mg/kg	500	0.20	mg/kg
		BA	123	mg/kg	10,000	0.20	mg/kg
		BE	0.27	mg/kg	75	0.20	mg/kg
		CD	2.26	mg/kg	100	0.099	mg/kg
		CO	12.1	mg/kg	8,000	0.40	mg/kg
		CR	35.0	mg/kg	2,500	0.40	mg/kg
		CU	26.1	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	30.8	mg/kg	2,000	0.99	mg/kg
		PB	9.8	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	41.7	mg/kg	2,400	0.40	mg/kg
		ZN	41.7	mg/kg	5,000	0.20	mg/kg
48558	P153X00.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	181	mg/kg	10,000	0.20	mg/kg
		BE	0.25	mg/kg	75	0.20	mg/kg
		CD	2.57	mg/kg	100	0.099	mg/kg
		CO	11.5	mg/kg	8,000	0.40	mg/kg
		CR	35.3	mg/kg	2,500	0.40	mg/kg
		CU	51.4	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	34.6	mg/kg	2,000	0.99	mg/kg
		PB	99.0	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	40.8	mg/kg	2,400	0.40	mg/kg
		ZN	128	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48559	P153X03.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	120	mg/kg	10,000	0.20	mg/kg
		BE	0.22	mg/kg	75	0.20	mg/kg
		CD	2.61	mg/kg	100	0.099	mg/kg
		CO	11.6	mg/kg	8,000	0.40	mg/kg
		CR	37.2	mg/kg	2,500	0.40	mg/kg
		CU	139	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	35.1	mg/kg	2,000	0.99	mg/kg
		PB	8.4	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	33.3	mg/kg	2,400	0.40	mg/kg
		ZN	93.4	mg/kg	5,000	0.20	mg/kg
48560	P154X00.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	187	mg/kg	10,000	0.20	mg/kg
		BE	ND		75	0.20	mg/kg
		CD	2.36	mg/kg	100	0.099	mg/kg
		CO	8.93	mg/kg	8,000	0.40	mg/kg
		CR	31.0	mg/kg	2,500	0.40	mg/kg
		CU	40.6	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	30.3	mg/kg	2,000	0.99	mg/kg
		PB	124	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	31.0	mg/kg	2,400	0.40	mg/kg
		ZN	182	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48561	P154X01.5	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	188	mg/kg	10,000	0.20	mg/kg
		BE	0.26	mg/kg	75	0.20	mg/kg
		CD	3.33	mg/kg	100	0.099	mg/kg
		CO	13.9	mg/kg	8,000	0.40	mg/kg
		CR	52.1	mg/kg	2,500	0.40	mg/kg
		CU	354	mg/kg	2,500	0.20	mg/kg
		MO	8.10	mg/kg	3,500	0.40	mg/kg
		NI	53.9	mg/kg	2,000	0.99	mg/kg
		PB	ND		1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	43.6	mg/kg	2,400	0.40	mg/kg
		ZN	198	mg/kg	5,000	0.20	mg/kg
48575	P179X00.0	SOIL			CA TTLC		
		AG	0.47	mg/kg	500	0.20	mg/kg
		BA	172	mg/kg	10,000	0.20	mg/kg
		BE	0.23	mg/kg	75	0.20	mg/kg
		CD	3.19	mg/kg	100	0.10	mg/kg
		CO	13.5	mg/kg	8,000	0.40	mg/kg
		CR	39.5	mg/kg	2,500	0.40	mg/kg
		CU	964	mg/kg	2,500	0.20	mg/kg
		MO	7.16	mg/kg	3,500	0.40	mg/kg
		NI	37.1	mg/kg	2,000	1.0	mg/kg
		PB	204	mg/kg	1,000	1.0	mg/kg
		SB	ND		500	10	mg/kg
		TL	ND		700	4.0	mg/kg
		V	42.8	mg/kg	2,400	0.40	mg/kg
		ZN	221	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89 Date Received: 08/22/89
Date Analyzed: 09/01/89 Date Reported: 10/25/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48554	P162X00.0	AS	11.0	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48555	P162X00.5	AS	8.94	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48556	P163X00.0	AS	108	500	6.0
		SE	ND	100	0.60
		HG	0.13	20	0.040
48557	P163X00.5	AS	9.86	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48558	P153X00.0	AS	9.50	500	0.60
		SE	ND	100	0.60
		HG	0.063	20	0.040
48559	P153X03.0	AS	9.68	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48560	P154X00.0	AS	8.38	500	0.60
		SE	ND	100	0.60
		HG	0.26	20	0.040
48561	P154X01.5	AS	8.56	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48562	P155X00.5	AS	8.38	500	0.60
		PB	14.8	1,000	1.4
		CU	49.0	2,500	0.40
48563	P155X00.0	AS	8.56	500	0.60
		PB	95.6	1,000	1.4
		CU	50.2	2,500	0.40
48564	P185X00.0	AS	8.02	500	0.60
		PB	47.0	1,000	1.4
		CU	35.0	2,500	0.40
48565	P184X00.0	AS	11.0	500	0.60
		PB	59.8	1,000	1.4
		CU	36.4	2,500	0.40
48566	P185X02.0	AS	8.38	500	0.60
		PB	10	1,000	1.4
		CU	22.2	2,500	0.40
48567	P184X01.5	AS	6.00	500	0.60
		PB	16.8	1,000	1.4
		CU	28.0	2,500	0.40
48568	P183X00.0	AS	16.6	500	0.60
		PB	61.6	1,000	1.4
		CU	36.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48569	P183X02.5	AS	11.2	500	0.60
		PB	15.8	1,000	1.4
		CU	27.6	2,500	0.40
48570	P155X00.5	AS	13.4	500	0.60
		PB	77.6	1,000	1.4
		CU	47.4	2,500	0.40
48571	P155X00.0	AS	8.94	500	0.60
		PB	25.4	1,000	1.4
		CU	117	2,500	0.40
48572	P181X00.0	AS	15.7	500	0.60
		PB	71.8	1,000	1.4
		CU	29.8	2,500	0.40
48573	P181X02.0	AS	9.12	500	0.60
		PB	29.6	1,000	1.4
		CU	37.6	2,500	0.40
48574	P182X00.0	AS	13.6	500	0.60
		PB	248	1,000	1.4
		CU	77.0	2,500	0.40
48575	P179X00.0	AS	13.6	500	0.60
		SE	ND	100	0.60
		HG	0.076	20	0.040
48576	P180X00.0	AS	14.0	500	0.60
		PB	153	1,000	1.4
		CU	88.8	2,500	0.40
48577	P179X00.0	AS	13.8	500	0.60
		PB	150	1,000	1.4
		CU	212	2,500	0.40

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Laboratory Job No.: 893883

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48578	P179Y00.0	AS	14.0	500	0.60
		PB	187	1,000	1.4
		CU	90.8	2,500	0.40
48579	P179X02.0	AS	9.68	500	0.60
		PB	13	1,000	1.4
		CU	33.2	2,500	0.40
48580	P180X05.5	AS	13.8	500	0.60
		PB	49.2	1,000	1.4
		CU	36.6	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89
Date Received: 08/22/89
Date Analyzed: 08/29/89
Date Reported: 10/25/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	48555	DET.	48559	DET.
	SMP#	P162X00.5	LIM.	P153X03.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

COMPOUNDS:	LAB#	48555	DET.	48559	DET.
	SMP#	P162X00.5	LIM.	P153X03.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		85%		88%	
TOLUENE-D8		106%		108%	
4-BROMOFLUOROBENZENE		102%		95%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

COMPOUNDS:	LAB#	48561	DET.
	SMP#	P154X01.5	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

COMPOUNDS:	LAB#	48561	DET.
	SMP#	P154X01.5	LIM.
PURGEABLES		ug/kg	
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		116%	
TOLUENE-D8		98%	
4-BROMOFLUOROBENZENE		89%	

ND: NOT DETECTED.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89 Date Received: 08/22/89
Date Analyzed: 09/14/89 Date Reported: 10/25/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
48554	P162X00.0	SOIL	NONE DETECTED		90	QUARTZ
					10	CLAY
48555	P162X00.5	SOIL	NONE DETECTED		85	QUARTZ
					15	CLAY
48556	P163X00.0	SOIL	NONE DETECTED		85	QUARTZ
					5	CELLULOSE FIBERS
					5	CLAY
					5	OPAQUES
48557	P163X00.5	SOIL	NONE DETECTED		85	QUARTZ
					15	CLAY
48558	P153X00.0	SOIL	NONE DETECTED		85	QUARTZ
					10	CLAY
					5	CELLULOSE FIBERS
48559	P153X03.0	SOIL	NONE DETECTED		80	QUARTZ
					20	CLAY
48560	P154X00.0	SOIL	NONE DETECTED		75	QUARTZ
					15	CLAY
					10	CELLULOSE FIBERS

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
48561	P154X01.5	SOIL	NONE DETECTED		60	QUARTZ
					30	CLAY
					10	CELLULOSE FIBERS
48568	P183X00.0	SOIL	NONE DETECTED		85	QUARTZ
					10	CLAY
					5	CELLULOSE FIBERS
48569	P183X02.5	SOIL	NONE DETECTED		55	QUARTZ
					40	CLAY
					5	MICA
48572	P182X00.0	SOIL	NONE DETECTED		85	QUARTZ
					10	CLAY
					5	CELLULOSE FIBERS

Olivia L. Alejandro
ANALYST:MIKE GRAY

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/21/89
Date Extracted: 08/24/89
Date Analyzed: 08/24/89

Laboratory Job No.: 893883
Date Received: 08/22/89
Date Reported: 10/25/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
48555	P162X00.5 GASOLINE	ND	1.0 mg/kg
48557	P163X00.5 GASOLINE	ND	1.0 mg/kg
48559	P153X03.0 GASOLINE	ND	1.0 mg/kg
48561	P154X01.5 GASOLINE	ND	1.0 mg/kg
48575	P179X00.0 GASOLINE	ND	1.0 mg/kg
48579	P179X02.0 GASOLINE	ND	1.0 mg/kg

* SAMPLE DELIVERED IN PLASTIC CONTAINER.

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/21/89
Date Extracted: 09/04/89
Date Analyzed: 09/29/89

Laboratory Job No.: 893883
Date Received: 08/22/89
Date Reported: 10/25/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
48555 P162X00.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48557 P163X00.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48559 P153X03.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48561 P154X01.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48575 P179X00.0		
NAPHTHALENE	ND	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.29 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO SMPLNO-ID	RESULTS		DET.LIM	
48579 P179X02.0				
NAPHTHALENE	ND		0.066	mg/kg
ACENAPHTHYLENE	ND		0.098	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.014	mg/kg
48555 P162X00.5				
PHENANTHRENE	ND		0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	0.0010	mg/kg	0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg
48557 P163X00.5				
PHENANTHRENE	0.045	mg/kg	0.023	mg/kg
ANTHRACENE	0.085	mg/kg	0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
48559	P153X03.0				
	PHENANTHRENE	0.029	mg/kg	0.023	mg/kg
	ANTHRACENE	ND		0.055	mg/kg
	FLUORANTHENE	ND		0.0013	mg/kg
	PYRENE	ND		0.0040	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
	CHRYSENE	ND		0.0083	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
	BENZO(A)PYRENE	ND		0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
	INDENO(123CD)PYRENE	ND		0.0034	mg/kg
48561	P154X01.5				
	PHENANTHRENE	0.025	mg/kg	0.023	mg/kg
	ANTHRACENE	ND		0.055	mg/kg
	FLUORANTHENE	ND		0.0013	mg/kg
	PYRENE	ND		0.0040	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
	CHRYSENE	ND		0.0083	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
	BENZO(A)PYRENE	ND		0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
	INDENO(123CD)PYRENE	ND		0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO SMPLNO-ID	RESULTS	DET.LIM
48575 P179X00.0		
PHENANTHRENE	0.61 mg/kg	0.47 mg/kg
ANTHRACENE	ND	1.1 mg/kg
FLUORANTHENE	0.089 mg/kg	0.027 mg/kg
PYRENE	0.089 mg/kg	0.080 mg/kg
BENZO(A)ANTHRACENE	0.033 mg/kg	0.010 mg/kg
CHRYSENE	ND	0.17 mg/kg
BENZO(B)FLUORANTHENE	0.076 mg/kg	0.018 mg/kg
BENZO(K)FLUORANTHENE	0.038 mg/kg	0.0051 mg/kg
BENZO(A)PYRENE	0.070 mg/kg	0.0080 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.016 mg/kg
BENZO(GHI)PERYLENE	0.093 mg/kg	0.017 mg/kg
INDENO(123CD)PYRENE	0.098 mg/kg	0.069 mg/kg
48579 P179X02.0		
PHENANTHRENE	0.048 mg/kg	0.023 mg/kg
ANTHRACENE	ND	0.055 mg/kg
FLUORANTHENE	ND	0.0013 mg/kg
PYRENE	ND	0.0040 mg/kg
BENZO(A)ANTHRACENE	ND	0.00052 mg/kg
CHRYSENE	ND	0.0083 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00090 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00025 mg/kg
BENZO(A)PYRENE	ND	0.00040 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00080 mg/kg
BENZO(GHI)PERYLENE	ND	0.00084 mg/kg
INDENO(123CD)PYRENE	ND	0.0034 mg/kg

NOTE: TWO SETS OF DATA APPEAR FOR EACH SAMPLE NUMBER
BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

AMMENDED REPORT

Typo on Pg. C

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Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO.
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89
Date Received: 08/22/89
Date Analyzed: 09/06/89
Date Reported: 10/25/89

ASSAY:
TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
48555	P162X00.5	TPH	ND	6
48557	P163X00.5	TPH	ND	6
48559	P153X03.0	TPH	ND	6
48561	P154X01.5	TPH	ND	6
48575	P179X00.0	TPH	130	6
48579	P179X02.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89
Date Received: 08/22/89
Date Analyzed: 08/24/89
Date Reported: 10/25/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48554	P162X00.0	SOIL			CA TTLC		
	AG		ND		500	0.20	mg/kg
	BA		136	mg/kg	10,000	0.20	mg/kg
	BE		0.22	mg/kg	75	0.20	mg/kg
	CD		2.12	mg/kg	100	0.098	mg/kg
	CO		11.1	mg/kg	8,000	0.39	mg/kg
	CR		34.1	mg/kg	2,500	0.39	mg/kg
	CU		34.9	mg/kg	2,500	0.20	mg/kg
	MO		ND		3,500	0.39	mg/kg
	NI		33.3	mg/kg	2,000	0.98	mg/kg
	PB		60.2	mg/kg	1,000	0.98	mg/kg
	SB		ND		500	9.8	mg/kg
	TL		ND		700	3.9	mg/kg
	V		39.3	mg/kg	2,400	0.39	mg/kg
	ZN		88.6	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48555	P162X00.5	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	149	mg/kg	10,000	0.20	mg/kg
		BE	0.31	mg/kg	75	0.20	mg/kg
		CD	2.35	mg/kg	100	0.098	mg/kg
		CO	15.1	mg/kg	8,000	0.39	mg/kg
		CR	40.5	mg/kg	2,500	0.39	mg/kg
		CU	26.9	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.39	mg/kg
		NI	37.9	mg/kg	2,000	0.98	mg/kg
		PB	ND		1,000	0.98	mg/kg
		SB	ND		500	9.8	mg/kg
		TL	ND		700	3.9	mg/kg
		V	49.9	mg/kg	2,400	0.39	mg/kg
		ZN	46.0	mg/kg	5,000	0.20	mg/kg
48556	P163X00.0	SOIL			CA TTLC		
		AG	0.51	mg/kg	500	0.20	mg/kg
		BA	471	mg/kg	10,000	0.20	mg/kg
		BE	ND		75	0.20	mg/kg
		CD	3.74	mg/kg	100	0.099	mg/kg
		CO	13.0	mg/kg	8,000	0.40	mg/kg
		CR	35.8	mg/kg	2,500	0.40	mg/kg
		CU	277	mg/kg	2,500	0.20	mg/kg
		MO	18.5	mg/kg	3,500	0.40	mg/kg
		NI	38.4	mg/kg	2,000	0.99	mg/kg
		PB	405	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	29.0	mg/kg	2,400	0.40	mg/kg
		ZN	456	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48557	P163X00.5	SOIL			CA TTLC		
	AG		0.22	mg/kg	500	0.20	mg/kg
	BA		123	mg/kg	10,000	0.20	mg/kg
	BE		0.27	mg/kg	75	0.20	mg/kg
	CD		2.26	mg/kg	100	0.099	mg/kg
	CO		12.1	mg/kg	8,000	0.40	mg/kg
	CR		35.0	mg/kg	2,500	0.40	mg/kg
	CU		26.1	mg/kg	2,500	0.20	mg/kg
	MO		ND		3,500	0.40	mg/kg
	NI		30.8	mg/kg	2,000	0.99	mg/kg
	PB		9.8	mg/kg	1,000	0.99	mg/kg
	SB		ND		500	9.9	mg/kg
	TL		ND		700	4.0	mg/kg
	V		41.7	mg/kg	2,400	0.40	mg/kg
	ZN		41.7	mg/kg	5,000	0.20	mg/kg
48558	P153X00.0	SOIL			CA TTLC		
	AG		ND		500	0.20	mg/kg
	BA		181	mg/kg	10,000	0.20	mg/kg
	BE		0.25	mg/kg	75	0.20	mg/kg
	CD		2.57	mg/kg	100	0.099	mg/kg
	CO		11.5	mg/kg	8,000	0.40	mg/kg
	CR		35.3	mg/kg	2,500	0.40	mg/kg
	CU		51.4	mg/kg	2,500	0.20	mg/kg
	MO		ND		3,500	0.40	mg/kg
	NI		34.6	mg/kg	2,000	0.99	mg/kg
	PB		99.0	mg/kg	1,000	0.99	mg/kg
	SB		ND		500	9.9	mg/kg
	TL		ND		700	4.0	mg/kg
	V		40.8	mg/kg	2,400	0.40	mg/kg
	ZN		128	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
48559	P153X03.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	120	mg/kg	10,000	0.20	mg/kg
		BE	0.22	mg/kg	75	0.20	mg/kg
		CD	2.61	mg/kg	100	0.099	mg/kg
		CO	11.6	mg/kg	8,000	0.40	mg/kg
		CR	37.2	mg/kg	2,500	0.40	mg/kg
		CU	139	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	35.1	mg/kg	2,000	0.99	mg/kg
		PB	8.4	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	33.3	mg/kg	2,400	0.40	mg/kg
		ZN	93.4	mg/kg	5,000	0.20	mg/kg
48560	P154X00.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	187	mg/kg	10,000	0.20	mg/kg
		BE	ND		75	0.20	mg/kg
		CD	2.36	mg/kg	100	0.099	mg/kg
		CO	8.93	mg/kg	8,000	0.40	mg/kg
		CR	31.0	mg/kg	2,500	0.40	mg/kg
		CU	40.6	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	30.3	mg/kg	2,000	0.99	mg/kg
		PB	124	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	31.0	mg/kg	2,400	0.40	mg/kg
		ZN	182	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
48561	P154X01.5 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	188	mg/kg	10,000	0.20	mg/kg
	BE	0.26	mg/kg	75	0.20	mg/kg
	CD	3.33	mg/kg	100	0.099	mg/kg
	CO	13.9	mg/kg	8,000	0.40	mg/kg
	CR	52.1	mg/kg	2,500	0.40	mg/kg
	CU	354	mg/kg	2,500	0.20	mg/kg
	MO	8.10	mg/kg	3,500	0.40	mg/kg
	NI	53.9	mg/kg	2,000	0.99	mg/kg
	PB	ND		1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	43.6	mg/kg	2,400	0.40	mg/kg
	ZN	198	mg/kg	5,000	0.20	mg/kg
48575	P179X00.0 SOIL			CA TTLC		
	AG	0.47	mg/kg	500	0.20	mg/kg
	BA	172	mg/kg	10,000	0.20	mg/kg
	BE	0.23	mg/kg	75	0.20	mg/kg
	CD	3.19	mg/kg	100	0.10	mg/kg
	CO	13.5	mg/kg	8,000	0.40	mg/kg
	CR	39.5	mg/kg	2,500	0.40	mg/kg
	CU	964	mg/kg	2,500	0.20	mg/kg
	MO	7.16	mg/kg	3,500	0.40	mg/kg
	NI	37.1	mg/kg	2,000	1.0	mg/kg
	PB	204	mg/kg	1,000	1.0	mg/kg
	SB	ND		500	10	mg/kg
	TL	ND		700	4.0	mg/kg
	V	42.8	mg/kg	2,400	0.40	mg/kg
	ZN	221	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89 Date Received: 08/22/89
Date Analyzed: 09/01/89 Date Reported: 10/25/89

ASSAY:
ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48554	P162X00.0	AS	11.0	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48555	P162X00.5	AS	8.94	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48556	P163X00.0	AS	108	500	6.0
		SE	ND	100	0.60
		HG	0.13	20	0.040
48557	P163X00.5	AS	9.86	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48558	P153X00.0	AS	9.50	500	0.60
		SE	ND	100	0.60
		HG	0.063	20	0.040

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48559	P153X03.0	AS	9.68	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48560	P154X00.0	AS	8.38	500	0.60
		SE	ND	100	0.60
		HG	0.26	20	0.040
48561	P154X01.5	AS	8.56	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
48562	P155X00.5	AS	8.38	500	0.60
		PB	14.8	1,000	1.4
		CU	49.0	2,500	0.40
48563	P155X00.0	AS	8.56	500	0.60
		PB	95.6	1,000	1.4
		CU	50.2	2,500	0.40
48564	P185X00.0	AS	8.02	500	0.60
		PB	47.0	1,000	1.4
		CU	35.0	2,500	0.40
48565	P184X00.0	AS	11.0	500	0.60
		PB	59.8	1,000	1.4
		CU	36.4	2,500	0.40
48566	P185X02.0	AS	8.38	500	0.60
		PB	10	1,000	1.4
		CU	22.2	2,500	0.40
48567	P184X01.5	AS	6.00	500	0.60
		PB	16.8	1,000	1.4
		CU	28.0	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48568	P183X00.0	AS	16.6	500	0.60
		PB	61.6	1,000	1.4
		CU	36.4	2,500	0.40
48569	P183X02.5	AS	11.2	500	0.60
		PB	15.8	1,000	1.4
		CU	27.6	2,500	0.40
48570	P181X00.0	AS	13.4	500	0.60
		PB	77.6	1,000	1.4
		CU	47.4	2,500	0.40
48571	P181X02.0	AS	8.94	500	0.60
		PB	25.4	1,000	1.4
		CU	117	2,500	0.40
48572	P182X00.0	AS	15.7	500	0.60
		PB	71.8	1,000	1.4
		CU	29.8	2,500	0.40
48573	P182X03.0	AS	9.12	500	0.60
		PB	29.6	1,000	1.4
		CU	37.6	2,500	0.40
48574	P180X00.0	AS	13.6	500	0.60
		PB	248	1,000	1.4
		CU	77.0	2,500	0.40
48575	P179X00.0	AS	13.6	500	0.60
		SE	ND	100	0.60
		HG	0.076	20	0.040
48576	P179Y00.0	AS	14.0	500	0.60
		PB	153	1,000	1.4
		CU	88.8	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
48577	P179FD0.0	AS	13.8	500	0.60
		PB	150	1,000	1.4
		CU	212	2,500	0.40
48578	P179MD0.0	AS	14.0	500	0.60
		PB	187	1,000	1.4
		CU	90.8	2,500	0.40
48579	P179X02.0	AS	9.68	500	0.60
		PB	13	1,000	1.4
		CU	33.2	2,500	0.40
48580	P180X05.5	AS	13.8	500	0.60
		PB	49.2	1,000	1.4
		CU	36.6	2,500	0.40

NOTE:THIS IS AN AMENDED REPORT.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89
Date Received: 08/22/89
Date Analyzed: 08/29/89
Date Reported: 10/25/89

ASSAY:
PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	48555	DET.	48559	DET.
	SMP#	P162X00.5	LIM.	P153X03.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

COMPOUNDS:	LAB#	48555	DET.	48559	DET.
	SMP#	P162X00.5	LIM.	P153X03.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		85%		88%	
TOLUENE-D8		106%		108%	
4-BROMOFLUOROBENZENE		102%		95%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

COMPOUNDS:	LAB#	48561	DET.
	SMP#	P154X01.5	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

COMPOUNDS:	LAB#	48561	DET.
	SMP#	P154X01.5	LIM.
PURGEABLES		ug/kg	
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		116%	
TOLUENE-D8		98%	
4-BROMOFLUOROBENZENE		89%	

ND: NOT DETECTED.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883
Date Collected: 08/21/89 Date Received: 08/22/89
Date Analyzed: 09/14/89 Date Reported: 10/25/89

ASSAY:
ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
48554	P162X00.0	SOIL	NONE DETECTED		90	QUARTZ
					10	CLAY
48555	P162X00.5	SOIL	NONE DETECTED		85	QUARTZ
					15	CLAY
48556	P163X00.0	SOIL	NONE DETECTED		85	QUARTZ
					5	CELLULOSE FIBERS
					5	CLAY
					5	OPAQUES
48557	P163X00.5	SOIL	NONE DETECTED		85	QUARTZ
					15	CLAY
48558	P153X00.0	SOIL	NONE DETECTED		85	QUARTZ
					10	CLAY
					5	CELLULOSE FIBERS
48559	P153X03.0	SOIL	NONE DETECTED		80	QUARTZ
					20	CLAY

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
48560	P154X00.0	SOIL	NONE	DETECTED	75	QUARTZ
					15	CLAY
					10	CELLULOSE FIBERS
48561	P154X01.5	SOIL	NONE	DETECTED	60	QUARTZ
					30	CLAY
					10	CELLULOSE FIBERS
48568	P183X00.0	SOIL	NONE	DETECTED	85	QUARTZ
					10	CLAY
					5	CELLULOSE FIBERS
48569	P183X02.5	SOIL	NONE	DETECTED	55	QUARTZ
					40	CLAY
					5	MICA
48572	P182X00.0	SOIL	NONE	DETECTED	85	QUARTZ
					10	CLAY
					5	CELLULOSE FIBERS

ANALYST:MIKE GRAY

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/21/89
Date Extracted: 08/24/89
Date Analyzed: 08/24/89

Laboratory Job No.: 893883
Date Received: 08/22/89
Date Reported: 10/25/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
48555	P162X00.5 GASOLINE	ND	1.0 mg/kg
48557	P163X00.5 GASOLINE	ND	1.0 mg/kg
48559	P153X03.0 GASOLINE	ND	1.0 mg/kg
48561	P154X01.5 GASOLINE	ND	1.0 mg/kg
48575	P179X00.0 GASOLINE	ND	1.0 mg/kg
48579	P179X02.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/21/89
Date Extracted: 09/04/89
Date Analyzed: 09/29/89

Laboratory Job No.: 893883
Date Received: 08/22/89
Date Reported: 10/25/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
48555 P162X00.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48557 P163X00.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48559 P153X03.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48561 P154X01.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
48575 P179X00.0		
NAPHTHALENE	ND	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.29 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO SMPLNO-ID	RESULTS		DET.LIM	
48579 P179X02.0				
NAPHTHALENE	ND		0.066	mg/kg
ACENAPHTHYLENE	ND		0.098	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.014	mg/kg
48555 P162X00.5				
PHENANTHRENE	ND		0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	0.0010	mg/kg	0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg
48557 P163X00.5				
PHENANTHRENE	0.045	mg/kg	0.023	mg/kg
ANTHRACENE	0.085	mg/kg	0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO SMPLNO-ID	RESULTS		DET.LIM	
48559 P153X03.0				
PHENANTHRENE	0.029	mg/kg	0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg
48561 P154X01.5				
PHENANTHRENE	0.025	mg/kg	0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893883

LABNO SMPLNO-ID	RESULTS		DET.LIM	
48575 P179X00.0				
PHENANTHRENE	0.61	mg/kg	0.47	mg/kg
ANTHRACENE	ND		1.1	mg/kg
FLUORANTHENE	0.089	mg/kg	0.027	mg/kg
PYRENE	0.089	mg/kg	0.080	mg/kg
BENZO(A)ANTHRACENE	0.033	mg/kg	0.010	mg/kg
CHRYSENE	ND		0.17	mg/kg
BENZO(B)FLUORANTHENE	0.076	mg/kg	0.018	mg/kg
BENZO(K)FLUORANTHENE	0.038	mg/kg	0.0051	mg/kg
BENZO(A)PYRENE	0.070	mg/kg	0.0080	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.016	mg/kg
BENZO(GHI)PERYLENE	0.093	mg/kg	0.017	mg/kg
INDENO(123CD)PYRENE	0.098	mg/kg	0.069	mg/kg
48579 P179X02.0				
PHENANTHRENE	0.048	mg/kg	0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg

NOTE: TWO SETS OF DATA APPEAR FOR EACH SAMPLE NUMBER
BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SCATO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927
Date Collected: 08/17/89
Date Received: 08/24/89
Date Analyzed: 09/06/89
Date Reported: 10/25/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
49129	P153X02.5	TPH	ND	6
49130	P154X01.0	TPH	ND	6
49131	MW15X15.0	TPH	ND	6
49135	MW15B03.0	TPH	ND	6
49136	MW15B09.0	TPH	ND	6
49137	MW15B25.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927
Date Collected: 08/17/89
Date Received: 08/24/89
Date Analyzed: 09/01/89
Date Reported: 10/25/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49129	P153X02.5	AS	12.1	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040
49130	P154X01.0	AS	9.50	500	0.60
		SE	ND	100	0.60
		HG	0.088	20	0.040
49131	MW15X15.0	AS	8.38	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
49132	MW15FD15.0	AS	4.3	500	0.60
		PB	4.6	1,000	1.4
		CU	15.6	2,500	0.40
49133	MW15Y15.0	AS	3.3	500	0.60
		PB	3.0	1,000	1.4
		CU	17.2	2,500	0.40
49134	MW15X00.0	AS	6.36	500	0.60
		PB	236	1,000	1.4
		CU	36.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49135	MW15B03.0	AS	7.10	500	0.60
		PB	ND	1,000	1.4
		CU	12.6	2,500	0.40
49136	MW15B09.0	AS	7.10	500	0.60
		PB	7.8	1,000	1.4
		CU	36.8	2,500	0.40
49137	MW15B25.0	AS	7.10	500	0.60
		PB	4.6	1,000	1.4
		CU	32.0	2,500	0.40
49138	P156X00.0	AS	8.02	500	0.60
		PB	59.4	1,000	1.4
		CU	41.0	2,500	0.40
49139	P157X00.0	AS	7.46	500	0.60
		PB	117	1,000	1.4
		CU	36.4	2,500	0.40
49140	P158X00.0	AS	8.02	500	0.60
		PB	71.6	1,000	1.4
		CU	33.6	2,500	0.40
49141	P159X00.0	AS	7.10	500	0.60
		PB	730	1,000	14
		CU	32.6	2,500	0.40
49142	P156X00.5	AS	6.90	500	0.60
		PB	8.0	1,000	1.4
		CU	43.4	2,500	0.40
49143	P157X00.5	AS	6.72	500	0.60
		PB	10	1,000	1.4
		CU	41.6	2,500	0.40

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Laboratory Job No.: 893927

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49144	P158X00.5	AS	6.90	500	0.60
		PB	26.4	1,000	1.4
		CU	146	2,500	0.40
49145	P159X01.5	AS	6.72	500	0.60
		PB	6.0	1,000	1.4
		CU	386	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927
Date Collected: 08/17/89
Date Received: 08/24/89
Date Analyzed: 08/29/89
Date Reported: 10/25/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
49129	P153X02.5 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	232	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	2.41	mg/kg	100	0.099	mg/kg
	CO	15.1	mg/kg	8,000	0.40	mg/kg
	CR	42.3	mg/kg	2,500	0.40	mg/kg
	CU	92.0	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	44.5	mg/kg	2,000	0.99	mg/kg
	PB	10.5	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	45.3	mg/kg	2,400	0.40	mg/kg
	ZN	89.6	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
49130	P154X01.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	125	mg/kg	10,000	0.20	mg/kg
		BE	ND		75	0.20	mg/kg
		CD	2.49	mg/kg	100	0.099	mg/kg
		CO	13.2	mg/kg	8,000	0.39	mg/kg
		CR	42.6	mg/kg	2,500	0.39	mg/kg
		CU	33.0	mg/kg	2,500	0.20	mg/kg
		MO	4.93	mg/kg	3,500	0.39	mg/kg
		NI	45.0	mg/kg	2,000	0.99	mg/kg
		PB	4.6	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	3.9	mg/kg
		V	46.3	mg/kg	2,400	0.39	mg/kg
		ZN	44.8	mg/kg	5,000	0.20	mg/kg
49131	MW15X15.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	175	mg/kg	10,000	0.20	mg/kg
		BE	ND		75	0.20	mg/kg
		CD	2.38	mg/kg	100	0.100	mg/kg
		CO	12.4	mg/kg	8,000	0.40	mg/kg
		CR	39.5	mg/kg	2,500	0.40	mg/kg
		CU	24.6	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	42.4	mg/kg	2,000	1.00	mg/kg
		PB	1.4	mg/kg	1,000	1.00	mg/kg
		SB	ND		500	10.0	mg/kg
		TL	ND		700	4.0	mg/kg
		V	30.6	mg/kg	2,400	0.40	mg/kg
		ZN	44.6	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927
Date Collected: 08/17/89
Date Received: 08/24/89
Date Analyzed: 09/04/89
Date Reported: 10/25/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	49128	DET.	49131	DET.
	SMP#	P163X02.5	LIM.	MW15X15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
ARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927

COMPOUNDS:	LAB#	49128	DET.	49131	DET.
	SMP#	P163X02.5	LIM.	MW15X15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
√INYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		95%		107%	
TOLUENE-D8		111%		110%	
4-BROMOFLUOROBENZENE		108%		107%	

ND: NOT DETETCED.

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ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927
Date Collected: 08/17/89
Date Received: 08/24/89
Date Analyzed: 09/14/89
Date Reported: 10/25/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
49125	P185X01.5	SOIL	NONE DETECTED		60	QUARTZ
					25	CLAY
					15	EVAPORITES
'9126	P147X00.5	SOIL	NONE DETECTED		75	QUARTZ
					20	EVAPORITES
					5	CLAY
49127	P182X02.5	SOIL	NONE DETECTED		45	CLAY
					40	QUARTZ
					15	EVAPORITES
49129	P153X02.5	SOIL	NONE DETECTED		70	QUARTZ
					20	CLAY
					10	EVAPORITES
49130	P154X01.0	SOIL	NONE DETECTED		85	QUARTZ
					5	CLAY
					5	OPAQUE MATERIAL
					5	MICA

Olivia Li Alejandro
for ANALYST:MIKE GRAY

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ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/17/89
Date Extracted: 08/28/89
Date Analyzed: 08/28/89

Laboratory Job No.: 893927
Date Received: 08/24/89
Date Reported: 10/25/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
49129	P153X02.5 GASOLINE	ND	1.0 mg/kg
49130	P154X01.0 GASOLINE	ND	1.0 mg/kg
49131	MW15X15.0 GASOLINE	ND	1.0 mg/kg
49135	MW15B03.0 GASOLINE	ND	1.0 mg/kg
49136	MW15B09.0 GASOLINE	ND	1.0 mg/kg
49137	MW15B25.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/17/89
Date Extracted: 09/04/89
Date Analyzed: 09/30/89

Laboratory Job No.: 893927
Date Received: 08/24/89
Date Reported: 10/25/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49129 P153X02.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
49130 P154X01.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
49131 MW15X15.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
49129	P153X02.5				
	PHENANTHRENE	0.041	mg/kg	0.023	mg/kg
	ANTHRACENE	ND		0.055	mg/kg
	FLUORANTHENE	ND		0.0013	mg/kg
	PYRENE	ND		0.0040	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
	CHRYSENE	ND		0.0083	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
	BENZO(A)PYRENE	ND		0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
	INDENO(123CD)PYRENE	ND		0.0034	mg/kg
49130	P154X01.0				
	PHENANTHRENE	0.042	mg/kg	0.023	mg/kg
	ANTHRACENE	ND		0.055	mg/kg
	FLUORANTHENE	ND		0.0013	mg/kg
	PYRENE	ND		0.0040	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
	CHRYSENE	ND		0.0083	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
	BENZO(A)PYRENE	ND		0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
	INDENO(123CD)PYRENE	ND		0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893927

LABNO SMPLNO-ID	RESULTS		DET.LIM	
49131 MW15X15.0				
PHENANTHRENE	0.030	mg/kg	0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg

NOTE:TWO SETS OF DATA APPEAR FOR EACH SAMPLE NUMBER BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946
Date Collected: 08/23/89
Date Received: 08/25/89
Date Analyzed: 09/06/89
Date Reported: 10/25/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
49273	MW12B00.0	TPH	11,300	60
49274	MW12B03.0	TPH	367.0	6
49275	MW12B06.0	TPH	1,160	6
49276	MW12B10.0	TPH	ND	6
49277	MW12B15.0	TPH	ND	6
49278	MW12B30.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946
Date Collected: 08/23/89
Date Received: 08/25/89
Date Analyzed: 09/05/89
Date Reported: 10/25/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49273	MW12B00.0	AS	7.46	500	0.60
		PB	9.6	1,000	1.4
		CU	18.4	2,500	0.40
49274	MW12B03.0	AS	7.10	500	0.60
		PB	11	1,000	1.4
		CU	24.8	2,500	0.40
49275	MW12B06.0	AS	7.64	500	0.60
		PB	14.0	1,000	1.4
		CU	33.0	2,500	0.40
49276	MW12B10.0	AS	7.82	500	0.60
		PB	15.8	1,000	1.4
		CU	38.8	2,500	0.40
49277	MW12B15.0	AS	7.46	500	0.60
		PB	26.4	1,000	1.4
		CU	27.8	2,500	0.40
49278	MW12B30.0	AS	7.64	500	0.60
		PB	9.2	1,000	1.4
		CU	27.2	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49279	P174X00.0	AS	14.9	500	0.60
		PB	31.6	1,000	1.4
		CU	33.6	2,500	0.40
49280	P174X03.0	AS	10.0	500	0.60
		PB	39.4	1,000	1.4
		CU	43.4	2,500	0.40
49281	P173X00.0	AS	10.8	500	0.60
		PB	49.8	1,000	1.4
		CU	40.6	2,500	0.40
49282	P173X02.0	AS	8.56	500	0.60
		PB	20.2	1,000	1.4
		CU	42.0	2,500	0.40
49283	P172X00.0	AS	9.50	500	0.60
		PB	59.8	1,000	1.4
		CU	54.6	2,500	0.40
49284	P172X02.0	AS	8.56	500	0.60
		PB	20.2	1,000	1.4
		CU	78.8	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946
Date Collected: 08/23/89
Date Received: 08/25/89
Date Analyzed: 09/06/89
Date Reported: 10/25/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	49273	DET.	49274	DET.
	SMP#	MW12B00.0	LIM.	MW12B03.0	LIM.
	dil.	5		5	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	12.5	ND	12.5
BROMODICHLOROMETHANE		ND	12.5	ND	12.5
BROMOFORM		ND	12.5	ND	12.5
BROMOMETHANE		ND	12.5	ND	12.5
CARBON TETRACHLORIDE		ND	12.5	ND	12.5
CHLOROBENZENE		ND	12.5	ND	12.5
CHLOROETHANE		ND	12.5	ND	12.5
2-CHLOROETHYLVINYL ETHER		ND	25.0	ND	25.0
CHLOROFORM		ND	12.5	ND	12.5
CHLOROMETHANE		ND	12.5	ND	12.5
DIBROMOCHLOROMETHANE		ND	12.5	ND	12.5
1,2-DICHLOROBENZENE		ND	12.5	ND	12.5
1,3-DICHLOROBENZENE		ND	12.5	ND	12.5
1,4-DICHLOROBENZENE		ND	12.5	ND	12.5
1,1-DICHLOROETHANE		ND	12.5	ND	12.5
1,2-DICHLOROETHANE		ND	12.5	ND	12.5
1,1-DICHLOROETHENE		ND	12.5	ND	12.5
TRANS-1,2-DICHLOROETHENE		ND	12.5	ND	12.5
1,2-DICHLOROPROPANE		ND	12.5	ND	12.5
CIS-1,3-DICHLOROPROPENE		ND	12.5	ND	12.5
TRANS-1,3-DICHLOROPROPENE		ND	12.5	ND	12.5
ETHYL BENZENE		ND	12.5	ND	12.5
METHYLENE CHLORIDE		ND	12.5	ND	12.5
1,1,2,2-TETRACHLOROETHANE		ND	12.5	ND	12.5
TETRACHLOROETHENE		ND	12.5	ND	12.5
TOLUENE		ND	12.5	ND	12.5
1,1,1-TRICHLOROETHANE		ND	12.5	ND	12.5
1,1,2-TRICHLOROETHANE		ND	12.5	ND	12.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

COMPOUNDS:	LAB#	49273	DET.	49274	DET.
	SMP#	MW12B00.0	LIM.	MW12B03.0	LIM.
	dil.	5		5	
PURGEABLES		ug/kg		ug/kg	
TRICHLOROETHENE		ND	12.5	ND	12.5
TRICHLOROFLUOROMETHANE		ND	12.5	ND	12.5
VINYL CHLORIDE		ND	25.0	ND	25.0
XYLENES		ND	12.5	ND	12.5
ACETONE		ND	250.0	ND	250.0
2-BUTANONE		ND	25.0	ND	25.0
CARBON DISULFIDE		ND	25.0	ND	25.0
-HEXANONE		ND	25.0	ND	25.0
4-METHYL-2-PENTANONE		ND	25.0	ND	25.0
STYRENE		ND	25.0	ND	25.0
VINYL ACETATE		ND	25.0	ND	25.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		85%		139%	
TOLUENE-D8		103%		131%	
4-BROMOFLUOROBENZENE		89%		91%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

COMPOUNDS:	LAB#	49275	DET.	49276	DET.
	SMP#	MW12B06.0	LIM.	MW12B10.0	LIM.
	dil.	5		1	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	12.5	ND	2.5
BROMODICHLOROMETHANE		ND	12.5	ND	2.5
BROMOFORM		ND	12.5	ND	2.5
BROMOMETHANE		ND	12.5	ND	2.5
CARBON TETRACHLORIDE		ND	12.5	ND	2.5
CHLOROBENZENE		ND	12.5	ND	2.5
CHLOROETHANE		ND	12.5	ND	2.5
-CHLOROETHYLVINYL ETHER		ND	25.0	ND	5.0
CHLOROFORM		ND	12.5	ND	2.5
CHLOROMETHANE		ND	12.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	12.5	ND	2.5
1,2-DICHLOROBENZENE		ND	12.5	ND	2.5
1,3-DICHLOROBENZENE		ND	12.5	ND	2.5
1,4-DICHLOROBENZENE		ND	12.5	ND	2.5
1,1-DICHLOROETHANE		ND	12.5	ND	2.5
1,2-DICHLOROETHANE		ND	12.5	ND	2.5
1,1-DICHLOROETHENE		ND	12.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	12.5	ND	2.5
1,2-DICHLOROPROPANE		ND	12.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	12.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	12.5	ND	2.5
ETHYL BENZENE		ND	12.5	ND	2.5
METHYLENE CHLORIDE		ND	12.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	12.5	ND	2.5
TETRACHLOROETHENE		ND	12.5	ND	2.5
TOLUENE		ND	12.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	12.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	12.5	ND	2.5
TRICHLOROETHENE		ND	12.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	12.5	ND	2.5
VINYL CHLORIDE		ND	25.0	ND	5.0
XYLENES		ND	12.5	ND	2.5
ACETONE		ND	250.0	ND	50.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

COMPOUNDS:	LAB#	49275	DET.	49276	DET.
	SMP#	MW12B06.0	LIM.	MW12B10.0	LIM.
	dil.	5		1	
PURGEABLES		ug/kg		ug/kg	
2-BUTANONE		ND	25.0	ND	5.0
CARBON DISULFIDE		ND	25.0	ND	5.0
2-HEXANONE		ND	25.0	ND	5.0
4-METHYL-2-PENTANONE		ND	25.0	ND	5.0
STYRENE		ND	25.0	ND	5.0
VINYL ACETATE		ND	25.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		143%		92%	
TOLUENE-D8		110%		104%	
4-BROMOFLUOROBENZENE		66%		96%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

COMPOUNDS:	LAB#	49277	DET.	49278	DET.
	SMP#	MW12B15.0	LIM.	MW12B30.0	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	35	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

COMPOUNDS:	LAB#	49277	DET.	49278	DET.
	SMP#	MW12B15.0	LIM.	MW12B30.0	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		105%		129%	
TOLUENE-D8		106%		101%	
4-BROMOFLUOROBENZENE		105%		102%	

ND: NOT DETECTED.

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/23/89
Date Extracted: 08/28/89
Date Analyzed: 08/28/89

Laboratory Job No.: 893946
Date Received: 08/25/89
Date Reported: 10/25/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49273 MW12B00.0 GASOLINE	55.0 mg/kg	1.0 mg/kg
49274 MW12B03.0 GASOLINE	200 mg/kg	1.3 mg/kg
49275 MW12B06.0 GASOLINE	190 mg/kg	1.0 mg/kg
49276 MW12B10.0 GASOLINE	ND	1.0 mg/kg
49277 MW12B15.0 GASOLINE	ND	1.0 mg/kg
49278 MW12B30.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/23/89
Date Extracted: 09/04/89
Date Analyzed: 09/30/89

Laboratory Job No.: 893946
Date Received: 08/25/89
Date Reported: 10/25/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49274 MW12B03.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	0.043 mg/kg	0.014 mg/kg
49275 MW12B06.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	0.10 mg/kg	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	0.173 mg/kg	0.014 mg/kg
49276 MW12B10.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
49274	MW12B03.0				
	PHENANTHRENE	0.285	mg/kg	0.023	mg/kg
	ANTHRACENE	ND		0.055	mg/kg
	FLUORANTHENE	0.0695	mg/kg	0.0013	mg/kg
	PYRENE	0.0605	mg/kg	0.0040	mg/kg
	BENZO(A)ANTHRACENE	0.0144	mg/kg	0.00052	mg/kg
	CHRYSENE	0.083	mg/kg	0.0083	mg/kg
	BENZO(B)FLUORANTHENE	0.0022	mg/kg	0.00090	mg/kg
	BENZO(K)FLUORANTHENE	0.0017	mg/kg	0.00025	mg/kg
	BENZO(A)PYRENE	0.0016	mg/kg	0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
	INDENO(123CD)PYRENE	ND		0.0034	mg/kg
49275	MW12B06.0				
	PHENANTHRENE	1.24	mg/kg	0.023	mg/kg
	ANTHRACENE	0.13	mg/kg	0.055	mg/kg
	FLUORANTHENE	0.273	mg/kg	0.0013	mg/kg
	PYRENE	0.229	mg/kg	0.0040	mg/kg
	BENZO(A)ANTHRACENE	0.0717	mg/kg	0.00052	mg/kg
	CHRYSENE	0.446	mg/kg	0.0083	mg/kg
	BENZO(B)FLUORANTHENE	0.0148	mg/kg	0.00090	mg/kg
	BENZO(K)FLUORANTHENE	0.00922	mg/kg	0.00025	mg/kg
	BENZO(A)PYRENE	0.0144	mg/kg	0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	0.0019	mg/kg	0.00080	mg/kg
	BENZO(GHI)PERYLENE	0.0102	mg/kg	0.00084	mg/kg
	INDENO(123CD)PYRENE	0.015	mg/kg	0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893946

LABNO	SMPLNO-ID	RESULTS	DET.LIM	
49276	MW12B10.0			
	PHENANTHRENE	ND	0.023	mg/kg
	ANTHRACENE	ND	0.055	mg/kg
	FLUORANTHENE	ND	0.0013	mg/kg
	PYRENE	ND	0.0040	mg/kg
	BENZO(A)ANTHRACENE	ND	0.00052	mg/kg
	CHRYSENE	ND	0.0083	mg/kg
	BENZO(B)FLUORANTHENE	ND	0.00090	mg/kg
	BENZO(K)FLUORANTHENE	ND	0.00025	mg/kg
	BENZO(A)PYRENE	ND	0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND	0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND	0.00084	mg/kg
	INDENO(123CD)PYRENE	ND	0.0034	mg/kg

NOTE:TWO SETS OF DATA APPEAR FOR EACH SAMPLE NUMBER BECAUSE
TWO DETECTORS WERE USED PER EPA 8310.

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Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930
Date Received: 08/28/89
Date Reported: 10/27/89

Date Analyzed: 09/06/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
49564	P171X00.0	TPH	360	6
49568	P171X01.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930
Date Received: 08/28/89
Date Reported: 10/27/89

Date Analyzed: 08/29/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
49564	P171X00.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	136	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	1.61	mg/kg	100	0.100	mg/kg
	CO	8.37	mg/kg	8,000	0.40	mg/kg
	CR	29.6	mg/kg	2,500	0.40	mg/kg
	CU	71.3	mg/kg	2,500	0.20	mg/kg
	MO	1.4	mg/kg	3,500	0.40	mg/kg
	NI	32.9	mg/kg	2,000	1.00	mg/kg
	PB	214	mg/kg	1,000	1.00	mg/kg
	SB	ND		500	10.0	mg/kg
	TL	ND		700	4.0	mg/kg
	V	29.3	mg/kg	2,400	0.40	mg/kg
	ZN	132	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930
Date Received: 08/28/89
Date Analyzed: 09/01/89 Date Reported: 10/27/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49562	P160X00.0	AS	7.10	500	0.60
		PB	232	1,000	1.4
		CU	43.0	2,500	0.40
49563	P160X01.0	AS	7.46	500	0.60
		PB	11	1,000	1.4
		CU	43.4	2,500	0.40
49564	P171X00.0	AS	16.4	500	0.60
		SE	ND	100	0.60
		HG	0.10	20	0.040
49565	P171Y00.0	AS	13.8	500	0.60
		PB	304	1,000	1.4
		CU	79.8	2,500	0.40
49566	P171FD0.0	AS	14.0	500	0.60
		PB	476	1,000	1.4
		CU	92.8	2,500	0.40
49567	P171MD0.0	AS	14.0	500	0.60
		PB	258	1,000	1.4
		CU	77.6	2,500	0.40

ACCUTEST
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49568	P171X01.0	AS	8.38	500	0.60
		PB	29.4	1,000	1.4
		CU	43.2	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930
Date Extracted: 08/28/89
Date Received: 08/28/89
Date Analyzed: 08/28/89
Date Reported: 10/27/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
49564	P171X00.0		
	GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930
Date Extracted: 09/05/89
Date Analyzed: 09/30/89
Date Received: 08/28/89
Date Reported: 10/27/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49564 P171X00.0		
NAPHTHALENE	ND	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.29 mg/kg
49568 P171X01.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
49564 P171X00.0		
PHENANTHRENE	ND	0.47 mg/kg
ANTHRACENE	ND	1.1 mg/kg
FLUORANTHENE	0.12 mg/kg	0.027 mg/kg
PYRENE	ND	0.080 mg/kg
BENZO(A)ANTHRACENE	0.023 mg/kg	0.010 mg/kg
CHRYSENE	ND	0.17 mg/kg
BENZO(B)FLUORANTHENE	0.077 mg/kg	0.018 mg/kg
BENZO(K)FLUORANTHENE	0.029 mg/kg	0.0051 mg/kg
BENZO(A)PYRENE	0.070 mg/kg	0.0080 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.016 mg/kg
BENZO(GHI)PERYLENE	0.15 mg/kg	0.017 mg/kg
INDENO(123CD)PYRENE	0.075 mg/kg	0.069 mg/kg

ACCULAB
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Telephone: (707) 763-5245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893930

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
49568	P171X01.0				
PHENANTHRENE		ND		0.023	mg/kg
ANTHRACENE		ND		0.055	mg/kg
FLUORANTHENE		0.011	mg/kg	0.0013	mg/kg
PYRENE		0.012	mg/kg	0.0040	mg/kg
BENZO(A)ANTHRACENE		0.0028	mg/kg	0.00052	mg/kg
CHRYSENE		ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE		0.0066	mg/kg	0.00090	mg/kg
BENZO(K)FLUORANTHENE		0.00262	mg/kg	0.00025	mg/kg
BENZO(A)PYRENE		0.00611	mg/kg	0.00040	mg/kg
DIBENZ(AH)ANTHRACENE		ND		0.00080	mg/kg
BENZO(GHI)PERYLENE		0.0258	mg/kg	0.00084	mg/kg
INDENO(123CD)PYRENE		0.0079	mg/kg	0.0034	mg/kg

NOTE:TWO SETS OF DATA APPEAR FOR EACH SAMPLE BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # uprr/sacto
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011
Date Collected: 08/23/89
Date Received: 08/29/89
Date Analyzed: 09/06/89
Date Reported: 10/25/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
49699	MW16X55.0	TPH	ND	6
49700	MW16X56.0	TPH	ND	6
49701	MW12B68.5	TPH	ND	6

HAS BEEN REVIEWED
AND IS RELEASED

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011
Date Collected: 08/23/89
Date Received: 08/29/89
Date Analyzed: 09/05/89
Date Reported: 10/25/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49699	MW16X55.0	AS	4.5	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
49700	MW16X56.0	AS	5.1	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
49701	MW12B68.5	AS	5.4	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011
Date Collected: 08/23/89 Date Received: 08/29/89
Date Analyzed: 08/31/89 Date Reported: 10/25/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.
49699	MW16X55.0 SOIL		CA TTLC		
	AG	ND	500	0.20	mg/kg
	BA	50.0 mg/kg	10,000	0.20	mg/kg
	BE	ND	75	0.20	mg/kg
	CD	1.23 mg/kg	100	0.10	mg/kg
	CO	7.29 mg/kg	8,000	0.40	mg/kg
	CR	20.0 mg/kg	2,500	0.40	mg/kg
	CU	8.24 mg/kg	2,500	0.20	mg/kg
	MO	0.77 mg/kg	3,500	0.40	mg/kg
	NI	34.9 mg/kg	2,000	1.0	mg/kg
	PB	ND	1,000	1.0	mg/kg
	SB	ND	500	10	mg/kg
	TL	ND	700	4.0	mg/kg
	V	22.6 mg/kg	2,400	0.40	mg/kg
	ZN	21.0 mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
49700	MW16X56.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	65.6	mg/kg	10,000	0.20	mg/kg
		BE	0.30	mg/kg	75	0.20	mg/kg
		CD	2.23	mg/kg	100	0.099	mg/kg
		CO	12.7	mg/kg	8,000	0.39	mg/kg
		CR	30.0	mg/kg	2,500	0.39	mg/kg
		CU	12.2	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.39	mg/kg
		NI	27.9	mg/kg	2,000	0.99	mg/kg
		PB	ND		1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	3.9	mg/kg
		V	30.9	mg/kg	2,400	0.39	mg/kg
		ZN	31.9	mg/kg	5,000	0.20	mg/kg
49701	MW12B68.5	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	119	mg/kg	10,000	0.20	mg/kg
		BE	0.36	mg/kg	75	0.20	mg/kg
		CD	2.70	mg/kg	100	0.098	mg/kg
		CO	15.3	mg/kg	8,000	0.39	mg/kg
		CR	46.0	mg/kg	2,500	0.39	mg/kg
		CU	16.3	mg/kg	2,500	0.20	mg/kg
		MO	0.58	mg/kg	3,500	0.39	mg/kg
		NI	48.3	mg/kg	2,000	0.98	mg/kg
		PB	ND		1,000	0.98	mg/kg
		SB	ND		500	9.8	mg/kg
		TL	ND		700	3.9	mg/kg
		V	38.2	mg/kg	2,400	0.39	mg/kg
		ZN	30.5	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011
Date Collected: 08/23/89 Date Received: 08/29/89
Date Analyzed: 09/07/89 Date Reported: 10/25/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	49699	DET.	49700	DET.
	SMP#	MW16X55.0	LIM.	MW16X56.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011

COMPOUNDS:	LAB#	49699	DET.	49700	DET.
	SMP#	MW16X55.0	LIM.	MW16X56.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		103%		122%	
TOLUENE-D8		109%		102%	
4-BROMOFLUOROBENZENE		112%		100%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011

COMPOUNDS:	LAB#	49701	DET.
	SMP#	MW12B68.5	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011

COMPOUNDS:	LAB#	49701	DET.
	SMP#	MW12B68.5	LIM.
PURGEABLES		ug/kg	
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		112%	
TOLUENE-D8		106%	
4-BROMOFLUOROBENZENE		97%	

ND: NOT DETETCED.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011
Date Collected: 08/23/89 Date Received: 08/29/89
Date Analyzed: 09/15/89 Date Reported: 10/25/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	COMPONENTS TYPE
49698	P171X00.5	SOIL	TRACE	CHRYSOTILE	90	QUARTZ
					5	MICA
					5	CLAY

TRACE=SAMPLE CONTAINS BETWEEN 0.1 TO 1% ASBESTOS

ANALYST:MIKE GRAY

ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/23/89
Date Extracted: 08/30/89
Date Analyzed: 08/30/89

Laboratory Job No.: 894011
Date Received: 08/29/89
Date Reported: 10/25/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
49699	MW16X55.0 GASOLINE	ND	1.0 mg/kg
49700	MW16X56.0 GASOLINE	ND	1.0 mg/kg
49701	MW12B68.5 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/23/89
Date Extracted: 09/04/89
Date Analyzed: 09/30/89

Laboratory Job No.: 894011
Date Received: 08/29/89
Date Reported: 10/25/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49699 MW16X55.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
49700 MW16X56.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	0.16 mg/kg	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
49701 MW12B68.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011

LABNO SMPLNO-ID	RESULTS		DET.LIM	
49699 MW16X55.0				
PHENANTHRENE	0.044	mg/kg	0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg
49700 MW16X56.0				
PHENANTHRENE	0.030	mg/kg	0.023	mg/kg
ANTHRACENE	ND		0.055	mg/kg
FLUORANTHENE	ND		0.0013	mg/kg
PYRENE	ND		0.0040	mg/kg
BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
CHRYSENE	ND		0.0083	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
BENZO(A)PYRENE	ND		0.00040	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
INDENO(123CD)PYRENE	ND		0.0034	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894011

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
49701	MW12B68.5				
	PHENANTHRENE	0.037	mg/kg	0.023	mg/kg
	ANTHRACENE	ND		0.055	mg/kg
	FLUORANTHENE	ND		0.0013	mg/kg
	PYRENE	ND		0.0040	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00052	mg/kg
	CHRYSENE	ND		0.0083	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00090	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00025	mg/kg
	BENZO(A)PYRENE	ND		0.00040	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00080	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00084	mg/kg
	INDENO(123CD)PYRENE	ND		0.0034	mg/kg

NOTE:TWO SETS OF DATA APPEAR FOR EACH SAMPLE NUMBER BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # uprr/sacto
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894012
Date Collected: 08/25/89
Date Received: 08/29/89
Date Analyzed: 08/31/89
Date Reported: 10/25/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.
49702	PDH8X01.5 SOIL			CA TTLC	
	AG	ND		500	0.20 mg/kg
	BA	137	mg/kg	10,000	0.20 mg/kg
	BE	0.34	mg/kg	75	0.20 mg/kg
	CD	3.20	mg/kg	100	0.10 mg/kg
	CO	13.5	mg/kg	8,000	0.40 mg/kg
	CR	40.5	mg/kg	2,500	0.40 mg/kg
	CU	51.9	mg/kg	2,500	0.20 mg/kg
	MO	ND		3,500	0.40 mg/kg
	NI	37.0	mg/kg	2,000	1.0 mg/kg
	PB	61.0	mg/kg	1,000	1.0 mg/kg
	SB	ND		500	10 mg/kg
	TL	ND		700	4.0 mg/kg
	V	46.0	mg/kg	2,400	0.40 mg/kg
	ZN	325	mg/kg	5,000	0.20 mg/kg

HAS BEEN REVIEWED
FOR RELEASE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894012

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
49703	PDH8X03.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	151	mg/kg	10,000	0.20	mg/kg
		BE	0.30	mg/kg	75	0.20	mg/kg
		CD	3.12	mg/kg	100	0.099	mg/kg
		CO	13.1	mg/kg	8,000	0.40	mg/kg
		CR	38.4	mg/kg	2,500	0.40	mg/kg
		CU	66.2	mg/kg	2,500	0.20	mg/kg
		MO	7.38	mg/kg	3,500	0.40	mg/kg
		NI	36.2	mg/kg	2,000	0.99	mg/kg
		PB	116	mg/kg	1,000	0.99	mg/kg
		SB	ND		500	9.9	mg/kg
		TL	ND		700	4.0	mg/kg
		V	43.7	mg/kg	2,400	0.40	mg/kg
		ZN	185	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894012
Date Collected: 08/25/89 Date Received: 08/29/89
Date Analyzed: 09/08/89 Date Reported: 10/25/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49702	PDH8X01.5	AS	7.96	500	0.60
		SE	ND	100	0.60
		HG	0.059	20	0.040
49703	PDH8X03.0	AS	10.4	500	0.60
		SE	ND	100	0.60
		HG	0.044	20	0.040
49704	P161X00.0	AS	5.1	500	0.60
		PB	162	1,000	1.4
		CU	56.2	2,500	0.40
49705	P164X00.0	AS	9.34	500	0.60
		PB	276	1,000	1.4
		CU	134	2,500	0.40
49706	P161X02.0	AS	2.7	500	0.60
		PB	21.0	1,000	1.4
		CU	60.2	2,500	0.40
49707	P164X08.0	AS	6.82	500	0.60
		PB	138	1,000	1.4
		CU	59.0	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894012
Date Collected: 08/25/89 Date Received: 08/29/89
Date Analyzed: 09/15/89 Date Reported: 10/25/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
49707	P164X08.0	SOIL	NONE DETECTED		75	QUARTZ
					15	CLAY
					5	CELLULOSE FIBERS
					5	MICA

ANALYST:MIKE GRAY

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/25/89
Date Extracted: 09/04/89
Date Analyzed: 09/30/89

Laboratory Job No.: 894012
Date Received: 08/29/89
Date Reported: 10/25/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49707 P164X08.0		
NAPHTHALENE	2.4 mg/kg	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	0.94 mg/kg	0.29 mg/kg
49707 P164X08.0		
PHENANTHRENE	3.8 mg/kg	0.47 mg/kg
ANTHRACENE	ND	1.1 mg/kg
FLUORANTHENE	2.40 mg/kg	0.027 mg/kg
PYRENE	1.81 mg/kg	0.080 mg/kg
BENZO(A)ANTHRACENE	0.498 mg/kg	0.010 mg/kg
CHRYSENE	ND	0.17 mg/kg
BENZO(B)FLUORANTHENE	0.421 mg/kg	0.018 mg/kg
BENZO(K)FLUORANTHENE	0.186 mg/kg	0.0051 mg/kg
BENZO(A)PYRENE	0.434 mg/kg	0.0080 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.016 mg/kg
BENZO(GHI)PERYLENE	0.260 mg/kg	0.017 mg/kg
INDENO(123CD)PYRENE	0.14 mg/kg	0.069 mg/kg

NOTE: TWO SETS OF DATA APPEAR FOR EACH SAMPLE NUMBER BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894030
Date Collected: 08/28/89
Date Received: 08/30/89
Date Analyzed: 09/06/89
Date Reported: 09/20/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
49803	MW23B00.0	TPH	ND	6
49804	MW23B04.5	TPH	390	6
49805	MW23B10.0	TPH	ND	6
49806	MW23B15.0	TPH	ND	6
49807	MW23B20.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894030
Date Collected: 08/28/89
Date Received: 08/30/89
Date Analyzed: 09/13/89
Date Reported: 09/20/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49803	MW23B00.0	AS	6.90	500	0.60
		PB	15.6	1,000	1.4
		CU	23.0	2,500	0.40
		SB	ND	500	10
49804	MW23B04.5	AS	6.54	500	0.60
		PB	13	1,000	1.4
		CU	23.8	2,500	0.40
		SB	ND	500	10
49805	MW23B10.0	AS	6.90	500	0.60
		PB	14.2	1,000	1.4
		CU	30.6	2,500	0.40
		SB	ND	500	10
49806	MW23B15.0	AS	6.72	500	0.60
		PB	18.6	1,000	1.4
		CU	27.8	2,500	0.40
		SB	ND	500	10

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894030

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49807	MW23B20.0	AS	5.4	500	0.60
		PB	8.0	1,000	1.4
		CU	10.6	2,500	0.40
		SB	ND	500	10

ANALYST:PRECY ROBINSON

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/28/89
Date Extracted: 09/06/89
Date Analyzed: 09/06/89

Laboratory Job No.: 894030
Date Received: 08/30/89
Date Reported: 09/20/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
49803	MW23B00.0		
	GASOLINE	ND	1.0 mg/kg
49804	MW23B04.5		
	GASOLINE	ND	1.0 mg/kg
49805	MW23B10.0		
	GASOLINE	ND	1.0 mg/kg
49806	MW23B15.0		
	GASOLINE	ND	1.0 mg/kg
49807	MW23B20.0		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 869024, Petaluma, CA 94975-9024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894031
Date Collected: 08/29/89
Date Received: 08/30/89
Date Analyzed: 09/13/89
Date Reported: 09/20/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

ATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49808	P168X00.0	AS	264	500	12
		PB	480	1,000	1.4
		CU	155	2,500	0.40
49809	P168X03.0	AS	10.6	500	0.60
		PB	16.4	1,000	1.4
		CU	50.4	2,500	0.40
49810	P165X00.0	AS	11.5	500	0.60
		PB	248	1,000	1.4
		CU	214	2,500	0.40
49811	P165X06.0	AS	8.76	500	0.60
		PB	15.0	1,000	1.4
		CU	35.8	2,500	0.40
49812	P169X00.0	AS	12.7	500	0.60
		PB	272	1,000	1.4
		CU	236	2,500	0.40

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894031

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49813	P169X06.0	AS	7.64	500	0.60
		PB	38.8	1,000	1.4
		CU	44.6	2,500	0.40

ANALYST:PRECY ROBINSON

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

phase 2

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR SAC
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Received: 08/31/89
Date Reported: 10/02/89

Date Analyzed: 09/06/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
49988	P167X00.0	TPH	180	6
49996	MW24X04.0	TPH	1,150	6
49997	MW24X41.0	TPH	ND	6

ANALYST:JAN TOISTER

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DAMES & MOORE

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Received: 08/31/89
Date Reported: 10/02/89

Date Analyzed: 09/13/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49986	P166X00.0	AS	11.0	500	0.60
		PB	204	1,000	1.4
		CU	130	2,500	0.40
49987	P166X08.0	AS	6.72	500	0.60
		PB	8.6	1,000	1.4
		CU	20.4	2,500	0.40
49988	P167X00.0	AS	9.68	500	0.60
		SE	ND	100	0.60
		HG	0.088	20	0.040
49989	P167Y00.0	AS	9.30	500	0.60
		PB	276	1,000	1.4
		CU	124	2,500	0.40
49990	P167FD0.0	AS	9.12	500	0.60
		PB	260	1,000	1.4
		CU	113	2,500	0.40
49991	P167MD0.0	AS	9.12	500	0.60
		PB	296	1,000	1.4
		CU	126	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49992	P167X06.0	AS	6.90	500	0.60
		PB	22.4	1,000	1.4
		CU	23.0	2,500	0.40
49993	P170X00.0	AS	13.8	500	0.60
		PB	228	1,000	1.4
		CU	272	2,500	0.40
49994	P170X07.0	AS	7.28	500	0.60
		PB	24.0	1,000	1.4
		CU	25.8	2,500	0.40
49995	P227X03.5	AS	7.46	500	0.60
		PB	36.6	1,000	1.4
		CU	21.2	2,500	0.40
49996	MW24X04.0	AS	7.46	500	0.60
		PB	11	1,000	1.4
		CU	20.0	2,500	0.40
49997	MW24X41.0	AS	6.18	500	0.60
		PB	7.8	1,000	1.4
		CU	23.6	2,500	0.40

ANALYST:PRECY ROBINSON

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Received: 08/31/89
Date Reported: 10/02/89

Date Analyzed: 09/07/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
49988	P167X00.0 SOIL			CA TTLC		
	AG	0.24	mg/kg	500	0.20	mg/kg
	BA	335	mg/kg	10,000	0.20	mg/kg
	BE	0.36	mg/kg	75	0.20	mg/kg
	CD	4.30	mg/kg	100	0.099	mg/kg
	CO	16.2	mg/kg	8,000	0.40	mg/kg
	CR	55.6	mg/kg	2,500	0.40	mg/kg
	CU	145	mg/kg	2,500	0.20	mg/kg
	MO	13.8	mg/kg	3,500	0.40	mg/kg
	NI	65.8	mg/kg	2,000	0.99	mg/kg
	PB	289	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	50.5	mg/kg	2,400	0.40	mg/kg
	ZN	373	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

ANALYST:NANCY S.TESCHE

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Received: 08/31/89
Date Analyzed: 09/13/89 Date Reported: 10/02/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	49996	DET.	49997	DET.
	SMP#	MW24X04.0	LIM.	MW24X41.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050

COMPOUNDS:	LAB#	49996	DET.	49997	DET.
	SMP#	MW24X04.0	LIM.	MW24X41.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		102%		124%	
TOLUENE-D8		96%		92%	
4-BROMOFLUOROBENZENE		88%		91%	

ND: NOT DETECTED.

ANALYST:PAUL MILLS

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Received: 08/31/89
Date Reported: 10/02/89

Date Analyzed: 09/15/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
49987	P166X08.0	SOIL	NONE DETECTED		90	QUARTZ
					5	MICA
					5	CLAY

ANALYST:MIKE GRAY

Phina R. Alejandro

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8243 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Extracted: 09/06/89
Date Received: 08/31/89
Date Analyzed: 09/06/89
Date Reported: 10/02/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49988 P167X00.0		
GASOLINE	ND	1.0 mg/kg
49996 MW24X04.0		
GASOLINE	10 mg/kg	1.0 mg/kg
49997 MW24X41.0		
GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050
Date Extracted: 09/12/89
Date Received: 08/31/89
Date Analyzed: 09/25/89
Date Reported: 10/02/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
49988 P167X00.0		
NAPHTHALENE	ND	3.3 mg/kg
ACENAPHTHYLENE	ND	4.9 mg/kg
ACENAPHTHENE	ND	6.8 mg/kg
FLUORENE	ND	0.71 mg/kg
49996 MW24X04.0		
NAPHTHALENE	0.14 mg/kg	0.066 mg/kg
ACENAPHTHYLENE	0.134 mg/kg	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	0.333 mg/kg	0.014 mg/kg
49997 MW24X41.0		
NAPHTHALENE	0.106 mg/kg	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050

LABNO SMPLNO-ID	RESULTS	DET.LIM
49988 P167X00.0		
PHENANTHRENE	ND	1.1 mg/kg
ANTHRACENE	ND	2.5 mg/kg
FLUORANTHENE	1.02 mg/kg	0.062 mg/kg
PYRENE	1.13 mg/kg	0.18 mg/kg
BENZO(A)ANTHRACENE	0.145 mg/kg	0.024 mg/kg
CHRYSENE	ND	0.39 mg/kg
BENZO(B)FLUORANTHENE	0.441 mg/kg	0.041 mg/kg
BENZO(K)FLUORANTHENE	0.212 mg/kg	0.012 mg/kg
BENZO(A)PYRENE	0.026 mg/kg	0.017 mg/kg
DIBENZ(AH)ANTHRACENE	0.039 mg/kg	0.037 mg/kg
BENZO(GHI)PERYLENE	0.312 mg/kg	0.037 mg/kg
INDENO(123CD)PYRENE	0.171 mg/kg	0.16 mg/kg
49996 MW24X04.0		
PHENANTHRENE	0.898 mg/kg	0.022 mg/kg
ANTHRACENE	ND	0.051 mg/kg
FLUORANTHENE	0.168 mg/kg	0.0012 mg/kg
PYRENE	0.0896 mg/kg	0.0035 mg/kg
BENZO(A)ANTHRACENE	0.0114 mg/kg	0.00048 mg/kg
CHRYSENE	0.129 mg/kg	0.0077 mg/kg
BENZO(B)FLUORANTHENE	0.0070 mg/kg	0.00083 mg/kg
BENZO(K)FLUORANTHENE	0.00376 mg/kg	0.00024 mg/kg
BENZO(A)PYRENE	0.00728 mg/kg	0.00035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00074 mg/kg
BENZO(GHI)PERYLENE	0.00945 mg/kg	0.00074 mg/kg
INDENO(123CD)PYRENE	0.011 mg/kg	0.0032 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894050

LABNO	SMPLNO-ID	RESULTS	DET.LIM	
49997	MW24X41.0			
	PHENANTHRENE	ND	0.022	mg/kg
	ANTHRACENE	ND	0.051	mg/kg
	FLUORANTHENE	ND	0.0012	mg/kg
	PYRENE	ND	0.0035	mg/kg
	BENZO(A)ANTHRACENE	ND	0.00048	mg/kg
	CHRYSENE	ND	0.0077	mg/kg
	BENZO(B)FLUORANTHENE	ND	0.00083	mg/kg
	BENZO(K)FLUORANTHENE	ND	0.00024	mg/kg
	BENZO(A)PYRENE	ND	0.00035	mg/kg
	DIBENZ(AH)ANTHRACENE	ND	0.00074	mg/kg
	BENZO(GHI)PERYLENE	ND	0.00074	mg/kg
	INDENO(123CD)PYRENE	ND	0.0032	mg/kg

NOTE: TWO SETS OF DATA ARE SHOWN FOR EACH SAMPLE AS TWO
DETECTORS WERE USED AS PER EPA 8310.
ANALYST:TIM AOKI

ANALYST:TIM AOKI

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ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894090
Date Collected: 08/30/89
Date Received: 09/01/89
Date Analyzed: 09/06/89
Date Reported: 10/02/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
50147	MW21B00.0	TPH	460	6
50148	MW21B03.0	TPH	ND	6
50149	MW21B10.0	TPH	ND	6
50150	MW21X15.0	TPH	ND	6
50153	MW21B20.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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P.O. Box 806824, Petaluma, CA 94975-6824
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894090
Date Collected: 08/30/89
Date Received: 09/01/89
Date Analyzed: 09/07/89
Date Reported: 10/02/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
50150	MW21X15.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	104	mg/kg	10,000	0.20	mg/kg
	BE	0.39	mg/kg	75	0.20	mg/kg
	CD	3.01	mg/kg	100	0.100	mg/kg
	CO	14.1	mg/kg	8,000	0.40	mg/kg
	CR	44.1	mg/kg	2,500	0.40	mg/kg
	CU	22.7	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	45.8	mg/kg	2,000	1.00	mg/kg
	PB	ND		1,000	1.00	mg/kg
	SB	ND		500	10.0	mg/kg
	TL	ND		700	4.0	mg/kg
	V	50.5	mg/kg	2,400	0.40	mg/kg
	ZN	45.6	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

ANALYST:NANCY S.TESCHE

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894090
Date Collected: 08/30/89 Date Received: 09/01/89
Date Analyzed: 09/13/89 Date Reported: 10/02/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
50147	MW21B00.0	AS	9.68	500	0.60
		PB	145	1,000	1.4
		CU	81.4	2,500	0.40
50148	MW21B03.0	AS	6.72	500	0.60
		PB	15.6	1,000	1.4
		CU	17.6	2,500	0.40
50149	MW21B10.0	AS	7.10	500	0.60
		PB	23.0	1,000	1.4
		CU	48.4	2,500	0.40
50150	MW21X15.0	AS	6.00	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
50151	MW21FD15.0	AS	7.10	500	0.60
		PB	18.2	1,000	1.4
		CU	27.6	2,500	0.40
50152	MW21Y15.0	AS	7.10	500	0.60
		PB	16.6	1,000	1.4
		CU	20.2	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894090

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
50153	MW21B20.0	AS	6.72	500	0.60
		PB	18.4	1,000	1.4
		CU	26.4	2,500	0.40

ANALYST:PRECY ROBINSON

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894090
Date Collected: 08/30/89
Date Received: 09/01/89
Date Analyzed: 09/14/89
Date Reported: 10/02/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	50150	DET.
	SMP#	MW21X15.0	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
ARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894090

COMPOUNDS:	LAB#	50150	DET.
	SMP#	MW21X15.0	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
TYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		90%	
TOLUENE-D8		101%	
4-BROMOFLUOROBENZENE		108%	

ND: NOT DETECTED.

ANALYST:PAUL MILLS

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/30/89
Date Extracted: 09/12/89
Date Analyzed: 09/25/89

Laboratory Job No.: 894090
Date Received: 09/01/89
Date Reported: 10/02/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
50150 MW21X15.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
50150 MW21X15.0		
PHENANTHRENE	ND	0.022 mg/kg
ANTHRACENE	ND	0.051 mg/kg
FLUORANTHENE	ND	0.0012 mg/kg
PYRENE	ND	0.0035 mg/kg
BENZO(A)ANTHRACENE	ND	0.00048 mg/kg
CHRYSENE	ND	0.0077 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00083 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00024 mg/kg
BENZO(A)PYRENE	ND	0.00035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00074 mg/kg
BENZO(GHI)PERYLENE	ND	0.00074 mg/kg
INDENO(123CD)PYRENE	ND	0.0032 mg/kg

ANALYST:TIM AOKI

ANALYST:TIM AOKI

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/30/89
Date Extracted: 09/06/89
Date Analyzed: 09/06/89

Laboratory Job No.: 894090
Date Received: 09/01/89
Date Reported: 10/02/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
50147 MW21B00.0 GASOLINE	ND	1.0 mg/kg
50148 MW21B03.0 GASOLINE	ND	1.0 mg/kg
50149 MW21B10.0 GASOLINE	ND	1.0 mg/kg
50150 MW21X15.0 GASOLINE	ND	1.0 mg/kg
50153 MW21B20.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ACCULAB
ENVIRONMENTAL SERVICES

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SAC.
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89
Date Received: 09/08/89
Date Analyzed: 09/21/89
Date Reported: 10/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
50885	MW22B51.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89
Date Received: 09/08/89
Date Analyzed: 09/25/89
Date Reported: 10/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
50879	MW-15	TPH	ND	0.63
50880	MW-16	TPH	ND	0.60
50881	MW-28	TPH	ND	0.71

ANALYST:JAN TOISTER

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/15/89 Date Reported: 10/03/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
50879	MW-15	AS	0.0084	0.0050
		SE	ND	0.0050
		HG	0.0001	0.0001
50880	MW-16	AS	0.0060	0.0050
		SE	ND	0.0050
		HG	0.0002	0.0001
50881	MW-28	AS	0.0084	0.0050
		SE	ND	0.0050
		HG	ND	0.0001

ANALYST:PRECY ROBINSON

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/15/89 Date Reported: 10/03/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
50884	P206X03.0	AS	8.38	500	0.60
		PB	85.0	1,000	1.4
		CU	41.8	2,500	0.40
50885	MW22B51.0	AS	8.94	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040

ANALYST:PRECY ROBINSON

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/13/89 Date Reported: 10/03/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.
50885	MW22B51.0 SOIL			CA TTLC	
	AG	ND		500	0.20 mg/kg
	BA	133	mg/kg	10,000	0.20 mg/kg
	BE	0.36	mg/kg	75	0.20 mg/kg
	CD	3.02	mg/kg	100	0.10 mg/kg
	CO	13.2	mg/kg	8,000	0.40 mg/kg
	CR	50.3	mg/kg	2,500	0.40 mg/kg
	CU	30.9	mg/kg	2,500	0.20 mg/kg
	MO	ND		3,500	0.40 mg/kg
	NI	56.1	mg/kg	2,000	1.0 mg/kg
	PB	ND		1,000	1.0 mg/kg
	SB	ND		500	10 mg/kg
	TL	ND		700	4.0 mg/kg
	V	49.5	mg/kg	2,400	0.40 mg/kg
	ZN	55.3	mg/kg	5,000	0.20 mg/kg

ND=Not Detected

ANALYST:NANCY S.TESCHE

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89
Date Received: 09/08/89
Date Analyzed: 09/13/89
Date Reported: 10/03/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
50879	MW-15 WATER		
	AG	ND	0.0020 mg/L
	BA	0.135 mg/L	0.0020 mg/L
	BE	0.0027 mg/L	0.0020 mg/L
	CD	0.0018 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	0.012 mg/L	0.0040 mg/L
	CU	0.0517 mg/L	0.0020 mg/L
	MO	0.0075 mg/L	0.0040 mg/L
	NI	0.017 mg/L	0.010 mg/L
	PB	0.012 mg/L	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.016 mg/L	0.0040 mg/L
	ZN	0.0447 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
50880	MW-16 WATER		
	AG	ND	0.0020 mg/L
	BA	0.196 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0025 mg/L
	MO	0.0057 mg/L	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.011 mg/L	0.0040 mg/L
	ZN	0.0383 mg/L	0.0020 mg/L
50881	MW-28 WATER		
	AG	0.0024 mg/L	0.0020 mg/L
	BA	0.124 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0710 mg/L	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	0.018 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.011 mg/L	0.0040 mg/L
	ZN	0.014 mg/L	0.0020 mg/L

ND=Not Detected

ANALYST:NANCY S.TESCHE

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89
Date Received: 09/08/89
Date Analyzed: 09/20/89
Date Reported: 10/03/89

PURGEABLES BY GC/MS(EPA 8240)

COMPOUNDS:	LAB#	50885	DET.
	SMP#	MW22B51.0	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186

COMPOUNDS:	LAB#	50885	DET.
	SMP#	MW22B51.0	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
TYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		86%	
TOLUENE-D8		100%	
4-BROMOFLUOROBENZENE		111%	

ND: NOT DETECTED.

ANALYST:PAUL MILLS

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/18/89
Date Analyzed: 09/18/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
50879	MW-15		
	GASOLINE	ND	0.050 mg/L
50880	MW-16		
	GASOLINE	ND	0.050 mg/L
50881	MW-28		
	GASOLINE	ND	0.050 mg/L

ANALYST:ROBERT REMLINGER

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 806024, Petaluma, CA 94975-6024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/13/89
Date Analyzed: 09/13/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
50885	MW22B51.0		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/12/89
Date Analyzed: 09/25/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
50885 MW22B51.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
50885 MW22B51.0		
PHENANTHRENE	ND	0.022 mg/kg
ANTHRACENE	ND	0.051 mg/kg
FLUORANTHENE	ND	0.0012 mg/kg
PYRENE	ND	0.0035 mg/kg
BENZO(A)ANTHRACENE	ND	0.00048 mg/kg
CHRYSENE	ND	0.0077 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00083 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00024 mg/kg
BENZO(A)PYRENE	ND	0.00035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00074 mg/kg
BENZO(GHI)PERYLENE	ND	0.00074 mg/kg
INDENO(123CD)PYRENE	ND	0.0032 mg/kg

ANALYST:TIM AOKI

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ENVIRONMENTAL SERVICES

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P.O. Box 806024, Petaluma, CA 94975-6024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/13/89
Date Analyzed: 09/13/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	50879	DET.	50880	DET.	50881	DET.	50883	DET.
	SMP#	MW-15	LIM.	MW-16	LIM.	MW-28	LIM.	FB-2	LIM.
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE		ND	0.5	3.9	0.5	ND	0.5	ND	0.5
XYLENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5

ANALYST:DAVE BUSCH

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/13/89
Date Analyzed: 09/13/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	50879	DET.	50880	DET.	50881	DET.
	SMP#	MW-15	LIM.	MW-16	LIM.	MW-28	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	0.5	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	0.7	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		2.2	0.5	ND	0.5	2.4	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	0.8	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186

COMPOUNDS:	LAB#	50882	DET.	50883	DET.
	SMP#	TC-2	LIM.	FB-2	LIM.
PURGEABLES		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		2.3	0.5	1.9	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0

ANALYST:DAVE BUSCH

AMMENDED REPORT
REPLACES combined
Soil/H_2O Report

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-5245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894843
Date Collected: 08/31/89
Date Received: 09/08/89
Date Analyzed: 09/21/89
Date Reported: 10/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
50885	MW22B51.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894843
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/15/89 Date Reported: 10/03/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
50884	P206X03.0	AS	8.38	500	0.60
		PB	85.0	1,000	1.4
		CU	41.8	2,500	0.40
50885	MW22B51.0	AS	8.94	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040

3700 Lakeville Highway, Petaluma
P.O. Box 808024, Petaluma, CA 94
Telephone: (707) 763-8245 FAX: (70

Pb = ND??

L A B O R A T O R Y R E

L.

Date Collected: 08/31/89
Date Analyzed: 09/13/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
50885	MW22B51.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	133	mg/kg	10,000	0.20	mg/kg
	BE	0.36	mg/kg	75	0.20	mg/kg
	CD	3.02	mg/kg	100	0.10	mg/kg
	CO	13.2	mg/kg	8,000	0.40	mg/kg
	CR	50.3	mg/kg	2,500	0.40	mg/kg
	CU	30.9	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	56.1	mg/kg	2,000	1.0	mg/kg
	PB	ND		1,000	1.0	mg/kg
	SB	ND		500	10	mg/kg
	TL	ND		700	4.0	mg/kg
	V	49.5	mg/kg	2,400	0.40	mg/kg
	ZN	55.3	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894843
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/20/89 Date Reported: 10/03/89

PURGEABLES BY GC/MS(EPA 8240)

COMPOUNDS:	LAB#	50885	DET.
	SMP#	MW22B51.0	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894843

COMPOUNDS:	LAB#	50885	DET.
	SMP#	MW22B51.0	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		86%	
TOLUENE-D8		100%	
4-BROMOFLUOROBENZENE		111%	

ND: NOT DETECTED.

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/13/89
Date Analyzed: 09/13/89

Laboratory Job No.: 894843
Date Received: 09/08/89
Date Reported: 10/03/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
50885	MW22B51.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/12/89
Date Analyzed: 09/25/89

Laboratory Job No.: 894843
Date Received: 09/08/89
Date Reported: 10/03/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
50885 MW22B51.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
50885 MW22B51.0		
PHENANTHRENE	ND	0.022 mg/kg
ANTHRACENE	ND	0.051 mg/kg
FLUORANTHENE	ND	0.0012 mg/kg
PYRENE	ND	0.0035 mg/kg
BENZO(A)ANTHRACENE	ND	0.00048 mg/kg
CHRYSENE	ND	0.0077 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00083 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00024 mg/kg
BENZO(A)PYRENE	ND	0.00035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00074 mg/kg
BENZO(GHI)PERYLENE	ND	0.00074 mg/kg
INDENO(123CD)PYRENE	ND	0.0032 mg/kg

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894281
Date Collected: 09/11/89
Date Received: 09/13/89
Date Analyzed: 09/21/89
Date Reported: 10/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
51424	MW20B57.5	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE

ACCULAB
ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894281
Date Collected: 09/11/89
Date Received: 09/13/89
Date Analyzed: 09/22/89
Date Reported: 10/03/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
51424	MW20B57.5	AS	7.34	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040

ANALYST:PRECY ROBINSON

ACCULAB
ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894281
Date Collected: 09/11/89 Date Received: 09/13/89
Date Analyzed: 09/20/89 Date Reported: 10/03/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS				DET. LIM.	
51424	MW20B57.5 SOIL			CA TTLC			
	AG	ND		500		0.20	mg/kg
	BA	198	mg/kg	10,000		0.20	mg/kg
	BE	0.50	mg/kg #	75		0.20	mg/kg
	CD	3.28	mg/kg	100		0.099	mg/kg
	CO	14.3	mg/kg	8,000		0.40	mg/kg
	CR	43.5	mg/kg	2,500		0.40	mg/kg
	CU	46.7	mg/kg	2,500		0.20	mg/kg
	MO	ND		3,500		0.40	mg/kg
	NI	72.7	mg/kg	2,000		0.99	mg/kg
	PB	ND		1,000		0.99	mg/kg
	SB	ND		500		9.9	mg/kg
	TL	ND		700		4.0	mg/kg
	V	47.6	mg/kg	2,400		0.40	mg/kg
	ZN	49.6	mg/kg	5,000		0.20	mg/kg

#=Detected below accurate method quantitation limit(below 3.3-Det.Lim.).
ND=Not Detected
ANALYST:NANCY S.TESCHE

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894281
Date Collected: 09/11/89
Date Received: 09/13/89
Date Analyzed: 09/21/89
Date Reported: 10/03/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	51424	DET.
	SMP#	MW20B57.5	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-6245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894281

COMPOUNDS:	LAB#	51424	DET.
	SMP#	MW20B57.5	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
TYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		92%	
TOLUENE-D8		102%	
4-BROMOFLUOROBENZENE		114%	

ND: NOT DETECTED.

ANALYST:PAUL MILLS

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/89
Date Extracted: 09/26/89
Date Analyzed: 09/26/89

Laboratory Job No.: 894281
Date Received: 09/13/89
Date Reported: 10/03/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
51424	MW20B57.5		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ACCULABS
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/89
Date Extracted: 09/12/89
Date Analyzed: 09/25/89

Laboratory Job No.: 894281
Date Received: 09/13/89
Date Reported: 10/03/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
51424 MW20B57.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
51424 MW20B57.5		
PHENANTHRENE	ND	0.022 mg/kg
ANTHRACENE	ND	0.051 mg/kg
FLUORANTHENE	ND	0.0012 mg/kg
PYRENE	ND	0.0035 mg/kg
BENZO(A)ANTHRACENE	ND	0.00048 mg/kg
CHRYSENE	ND	0.0077 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00083 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00024 mg/kg
BENZO(A)PYRENE	ND	0.00035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00074 mg/kg
BENZO(GHI)PERYLENE	ND	0.00074 mg/kg
INDENO(123CD)PYRENE	ND	0.0032 mg/kg

ANALYST:TIM AOKI

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-5245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894270 ✓
Date Collected: 09/07/89
Date Received: 09/13/89
Date Analyzed: 09/21/89
Date Reported: 09/22/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
51346	MW19B00.0	TPH	2,700	30
51347	MW19B01.5	TPH	ND	6
51348	MW19B10.0	TPH	ND	6
51349	MW19B15.0	TPH	ND	6
51350	MW19B20.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894270
Date Collected: 09/07/89
Date Received: 09/13/89
Date Analyzed: 09/14/89
Date Reported: 09/22/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
51346	MW19B00.0	AS	11.5	500	0.60
		PB	182	1,000	1.4
		CU	74.4	2,500	0.40
51347	MW19B01.5	AS	10.0	500	0.60
		PB	7.2	1,000	1.4
		CU	20.6	2,500	0.40
51348	MW19B10.0	AS	8.76	500	0.60
		PB	9.8	1,000	1.4
		CU	28.6	2,500	0.40
51349	MW19B15.0	AS	8.38	500	0.60
		PB	14.0	1,000	1.4
		CU	31.0	2,500	0.40
51350	MW19B20.0	AS	10.6	500	0.60
		PB	10	1,000	1.4
		CU	20.8	2,500	0.40

ANALYST:PRECY ROBINSON

ACCULAB
ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/07/89
Date Extracted: 09/18/89
Date Analyzed: 09/18/89

Laboratory Job No.: 894270
Date Received: 09/13/89
Date Reported: 09/22/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
51346 MW19B00.0 GASOLINE	ND	1.0 mg/kg
51347 MW19B01.5 GASOLINE	ND	1.0 mg/kg
51348 MW19B10.0 GASOLINE	ND	1.0 mg/kg
51349 MW19B15.0 GASOLINE	ND	1.0 mg/kg
51350 MW19B20.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894318
Date Collected: 09/12/89
Date Received: 09/15/89
Date Analyzed: 10/10/89
Date Reported: 10/17/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
51783	MW18B57.5	TPH	ND	6

[illegible] SEEN REVIEWED
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ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894318
Date Collected: 09/12/89 Date Received: 09/15/89
Date Analyzed: 09/22/89 Date Reported: 10/17/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
51780	MW17B00.0	AS	6.56	500	0.60
		PB	11	1,000	1.4
		CU	17.6	2,500	0.40
51781	MW17B03.0	AS	7.34	500	0.60
		PB	40.8	1,000	1.4
		CU	646	2,500	4.0
51782	MW17B07.0	AS	7.54	500	0.60
		PB	12	1,000	1.4
		CU	38.6	2,500	0.40
51783	MW18B57.5	AS	6.16	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894318
Date Collected: 09/12/89 Date Received: 09/15/89
Date Analyzed: 09/20/89 Date Reported: 10/17/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
51783	MW18B57.5 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	47.3	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	1.24	mg/kg	100	0.099	mg/kg
	CO	6.66	mg/kg	8,000	0.39	mg/kg
	CR	29.1	mg/kg	2,500	0.39	mg/kg
	CU	14.2	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	32.0	mg/kg	2,000	0.99	mg/kg
	PB	ND		1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	3.9	mg/kg
	V	22.6	mg/kg	2,400	0.39	mg/kg
	ZN	23.6	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894318
Date Collected: 09/12/89 Date Received: 09/15/89
Date Analyzed: 09/21/89 Date Reported: 10/17/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	51783	DET.
	SMP#	MW18B57.5	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894318

COMPOUNDS:	LAB#	51783	DET.
	SMP#	MW18B57.5	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		111%	
TOLUENE-D8		105%	
4-BROMOFLUOROBENZENE		109%	

ND: NOT DETECTED.

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/12/89
Date Extracted: 09/26/89
Date Analyzed: 09/26/89

Laboratory Job No.: 894318
Date Received: 09/15/89
Date Reported: 10/17/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
51783	MW18B57.5 GASOLINE	ND	1.0 mg/kg

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/12/89
Date Extracted: 09/27/89
Date Analyzed: 10/02/89

Laboratory Job No.: 894318
Date Received: 09/15/89
Date Reported: 10/17/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
51783 MW18B57.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
51783 MW18B57.5		
PHENANTHRENE	ND	0.11 mg/kg
ANTHRACENE	ND	0.057 mg/kg
FLUORANTHENE	ND	0.0014 mg/kg
PYRENE	ND	0.0069 mg/kg
BENZO(A)ANTHRACENE	ND	0.00060 mg/kg
CHRYSENE	ND	0.0097 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00097 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00026 mg/kg
BENZO(A)PYRENE	ND	0.00046 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00090 mg/kg
BENZO(GHI)PERYLENE	ND	0.0013 mg/kg
INDENO(123CD)PYRENE	ND	0.0035 mg/kg

NOTE: TWO SETS OF DATA APPEAR FOR EACH SAMPLE BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

Enseco

October 24, 1989
Lab ID: 049508

Jim Smith
Dames & Moore - Sacramento
9300 Tech Center Drive
Suite 100
Sacramento, CA 95826

Dear Mr. Smith:

Enclosed is the report for the one soil sample for your UPRR-Sacto Project, ID# 00173-022-044 which was received at Enseco-Cal Lab on 2 October 1989.

The report consists of the following sections:

I	Sample Description
II	Analysis Request
III	Quality Control Report
IV	Analysis Results

If you have any questions, please feel free to call.

Sincerely,

Beth Kelly
Program Administrator

jl

Enseco Incorporated
2544 Industrial Boulevard
West Sacramento, California 95691
916/372-1393 Facsimile: 916/372-1059

I Sample Description

See the attached Sample Description Information.

The sample was received under chain-of-custody.

II Analysis Request

The following analytical tests were requested.

Lab ID	Analysis Description
049508-1	Total Petroleum Hydrocarbons GC-FID/IR
	Benzene, Toluene, Ethyl benzene, & Total Xylenes

III Quality Control

A. Project Specific QC. No project specific QC (i.e., spikes and/or duplicates) was requested.

B. Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blanks associated with your sample at the reporting limit levels noted on the attached Method Blank Report.

C. Laboratory Control Samples - The LCS Program

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The DCS results associated with your samples are on the attached Duplicate Control Sample Report.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS. The SCS results associated with your samples are on the attached Single Control Sample Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{\text{(measured concentration)}}{\text{(actual concentration)}} \times 100$$

Precision is measured using duplicate tests by Relative Percent Difference (RPD) as in:

$$RPD = \frac{(\%\ \text{recovery test 1} - \%\ \text{recovery test 2})}{(\%\ \text{recovery test 1} + \%\ \text{recovery test 2})/2} \times 100$$

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/-3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. In cases where there is not enough historical data, EPA limits or advisory limits are set, with the approval of the Quality Assurance department.

IV Analysis Results

Test methods may include minor modifications of published EPA Methods such as reporting limits or parameter lists. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis, i.e., no correction is made for moisture content, unless the method requires or the client requests that such correction be made.

Results are on the attached data sheets.

SAMPLE DESCRIPTION INFORMATION
for
Dames & Moore

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
049508-0001-SA	POH1X02.0	SOIL	29 SEP 89		02 OCT 89

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
049508-0001-SA	SOIL	TPH-GAS-S	04 OCT 89-A	05 OCT 89-A
049508-0001-SA	SOIL	8020-S	28 SEP 89-14A	04 OCT 89-14A

Enseco

METHOD BLANK REPORT
olatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: TPH-GC-GAS			
Matrix: SOIL			
QC Lot: 04 OCT 89-A QC Run: 05 OCT 89-A			
Gasoline	ND	mg/kg	10
Test: 8020-BTX-S			
Matrix: SOIL			
QC Lot: 28 SEP 89-14A QC Run: 04 OCT 89-14A			
Benzene	ND	ug/kg	50
Toluene	ND	ug/kg	50
Ethyl benzene	ND	ug/kg	50
Total xylenes	ND	ug/kg	100

DUPLICATE CONTROL SAMPLE REPORT
/olatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Category: TPH-GAS-S Matrix: SOIL QC Lot: 04 OCT 89-A Concentration Units: ug/kg								
Gasoline	10000	11400	11500	11400	115	75-123	0.9	13
Category: 8020-S Matrix: SOIL QC Lot: 28 SEP 89-14A Concentration Units: ug/kg								
Benzene	500	515	496	506	101	75-123	3.8	13
Toluene	500	523	502	512	103	74-126	4.1	18
Ethyl benzene	500	526	512	519	104	74-126	2.7	18
Total xylenes	1500	1550	1500	1520	102	74-126	3.3	18
1,3-Dichlorobenzene	500	464	460	462	92	75-133	0.9	12

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 8020-S				
Matrix: SOIL				
QC Lot: 28 SEP 89-14A QC Run: 04 OCT 89-14A				
Concentration Units: ug/kg				
a,a,a-Trifluorotoluene	3000	2780	93	20-160

Calculations are performed before rounding to avoid round-off errors in calculated results.

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
049508-0001-SA	SOIL	TPH-IR-S	27 SEP 89-A	04 OCT 89-A

METHOD BLANK REPORT
Semivolatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: TPH-IR-S			
Matrix: SOIL			
QC Lot: 27 SEP 89-A QC Run: 04 OCT 89-A			
Total Petroleum Hydrocarbons	ND	mg/kg	20

DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision (RPD) Limit
Category: TPH-IR-S Matrix: SOIL QC Lot: 27 SEP 89-A Concentration Units: mg/Kg								
Total Petroleum Hydrocarbons	50	42	44	43	85	76-115	5.4	13

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: TPH-IR-S				
Matrix: SOIL				
QC Lot: 27 SEP 89-A QC Run: 04 OCT 89-A				
Concentration Units: mg/kg				
Total Petroleum Hydrocarbons	50	46	92	75-125

Calculations are performed before rounding to avoid round-off errors in calculated results.

Enseco

Total Petroleum Hydrocarbons (Gasoline)

Purge and Trap Method TPH-GC/FID

Client Name: Dames & Moore
Client ID: POH1X02.0
Lab ID: 049508-0001-SA Enseco ID: 122299
Matrix: SOIL Sampled: 29 SEP 89 Received: 02 OCT 89
Authorized: 02 OCT 89 Prepared: NA Analyzed: 05 OCT 89

Parameter	Result	Units	Reporting Limit
Gasoline	ND	mg/kg	10

N.D. = Not Detected
N.A. = Not Applicable

Reported By: Lisa Weiskopf Approved By: Sharon Campbell

The cover letter is an integral part of this report.
Rev 230787

Enseco

Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX)

Method 8020

Client Name: Dames & Moore
Client ID: POH1X02.0
Lab ID: 049508-0001-SA Enseco ID: 122299
Matrix: SOIL Sampled: 29 SEP 89 Received: 02 OCT 89
Authorized: 02 OCT 89 Prepared: 04 OCT 89 Analyzed: 05 OCT 89

Parameter	Result	Wet wt. Units	Reporting Limit
Benzene	ND	ug/kg	50
Toluene	ND	ug/kg	50
Ethyl benzene	ND	ug/kg	50
Total xylenes	ND	ug/kg	100

N.D. = Not Detected
N.A. = Not Applicable

Reported By: Pat Trinidad Approved By: Kris Murbach

The cover letter is an integral part of this report.
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Ensec

Total Petroleum Hydrocarbons (TPH), IR

EPA 418.1

Client Name: Dames & Moore
Matrix: SOIL
Units: mg/kg

Received: 02 OCT 89
Authorized: 02 OCT 89

Lab ID	Client ID	Result	Reporting Limit	Date Prepared	Date Analyzed
049508-0001-SA	POH1X02.0	25	20	04 OCT 89	11 OCT 89

N.D. = Not Detected
N.A. = Not Applicable

Reported By: Sherry Barnash

Approved By: Marcia Reed

The cover letter is an integral part of this report.
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[redacted]

ENSECO - CAL ANALYTICAL
WEST SACRAMENTO

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/ 364-8698
Address 9300 Tech Center Drive ste. 100
City, State, Zip Sacramento, CA. 95826
Client's or Representative's Signature Keoin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.	PROJECT NAME					NO. OF CONTAINERS	BTXE - 8020	418.1 TPH	8015 GAS				REMARKS	LAB USE ONLY LAB NO.
00173-022-044	UPRR - SACTO													
SAMPLERS (Signature) Keoin J. Brown														
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION									
POH1	9/29/89			X	POH1X02.0	1	✓	✓	✓				Oil House Area	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Keoin J. Brown	10/2/89	1100	William Rhew
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
- Direct any questions to Jim Smith in Sacto office @ 364-8698

CLIENT COPY

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phase 2

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894637
Date Collected: 09/02/89
Date Received: 10/03/89
Date Analyzed: 10/04/89
Date Reported: 10/05/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
53874	P211X00.0	AS	13.8	500	0.60
		CU	144	2,500	0.40
		PB	228	1,000	1.4
53875	P212X00.0	AS	11.0	500	0.60
		CU	33.4	2,500	0.40
		PB	113	1,000	1.4
53876	P213X00.0	AS	12.7	500	0.60
		CU	50.4	2,500	0.40
		PB	175	1,000	1.4
53877	P176X00.0	AS	5.5	500	0.60
		CU	71.8	2,500	0.40
		PB	252	1,000	1.4

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894637

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
53878	P177X00.0	AS	5.3	500	0.60
		CU	21.0	2,500	0.40
		PB	37.8	1,000	1.4
53879	P178X00.0	AS	5.3	500	0.60
		CU	20.2	2,500	0.40
		PB	39.2	1,000	1.4
53880	P175X00.0	AS	6.56	500	0.60
		CU	96.6	2,500	0.40
		PB	86.0	1,000	1.4
53881	P192X00.0	AS	12.1	500	0.60
		CU	68.6	2,500	0.40
		PB	150	1,000	1.4
53882	P200X00.0	AS	8.38	500	0.60
		CU	23.0	2,500	0.40
		PB	30.8	1,000	1.4
		SB	ND	500	10

ANALYST:PRECY ROBINSON

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 783-8245 FAX: (707) 783-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Contract/PO # RELOG#89-3927
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895129
Date Collected: 08/17/89
Date Received: 11/02/89
Date Analyzed: 10/03/89
Date Reported: 11/03/89

ASSAY:
ARSENIC IN WASTE BY AA-GF 7060)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49124	P149X03.5	AS	12.7	500	0.60

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895129
Date Collected: 08/17/89
Date Received: 11/02/89
Date Analyzed: 11/03/89
Date Reported: 11/03/89

ASSAY:
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
49124 P149X03.5	PB	380	1,000	1.4
	CU	190	2,500	0.40

file Phase 2 analysis

RECORD OF TELEPHONE CONVERSATION

DATE 12/05/89 JOB NO.: 00173-022-044

RECORDED BY: KJB OWNER/CLIENT: UPRR/SACTO.

TALKED WITH: GEORGE DUNSTON OF ACCULAB

NATURE OF CALL: INCOMING ☐ OUTGOING ☒

ROUTE TO:	INFORMATION	ACTION
	JES	

MAIN SUBJECT OF CALL: W.E.T. METALS ANALYSIS — Sample I.D. Errors Samples not analyzed

ITEMS DISCUSSED: 0925 - I called above - regarding above —

- Samples that were not analyzed could not be located 11/20/89 - George reported this to Tim Parker via George TKP was to give him some alternate samples to run WET's on

- I gave george the following lab I.D. errors

Acculab Job # 895361

Acculab Lab #	Should Be
58559	B018B03.0
58561	P227X01.0
58562	P246X01.0
58566	P186X00.0
58567	B016B055
58568	B013X00.0
58569	P252X00.0
58570	P242X01.0

— George said he would Fix them and send out an ammended report.

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895361
Date Extracted: 11/19/89
Date Analyzed: 11/21/89
Date Received: 11/16/89
Date Reported: 11/29/89

ASSAY:
ARSENIC (EPA 7060)

MATRIX:SOIL, CA EXTRACT

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC	DET.LIM. mg/L
58559	B-18/3.0	AS	2.6	5.0	0.30
58560	P240X00.0	AS	7.98	5.0*	0.30
58561	P227/1.0	AS	6.24	5.0*	0.30
58562	P246/0-1.5	AS	6.24	5.0*	0.30

Erroneous Sample No. I.D.'s — See Xerox'd Rpt.
Ammended report forthcoming

12/5/89
KJB

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895361
Date Extracted: 11/17/89
Date Received: 11/16/89
Date Analyzed: 11/27/89
Date Reported: 11/29/89

ASSAY:
LEAD(AA ASSAY EPA 7420),3010 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3010 ACID DIGEST

MATRIX: SOIL, CA EXTRACT

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
58563	P214X00.0	PB	21	5	0.07
58564	P208X00.0	PB	189	5	0.7
58565	P247X00.0	PB	76	5	0.7
58566	P186X00.1	PB	26	5	0.07
58567	SB-16/5.5	CU	4.1	25	0.02
58568	B-13/0.0	CU	13	25	0.02
58569	252X00.0	CU	3.3	25	0.02
58570	242X00.0	CU	74	25	0.2

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05172-022

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895361
Date Extracted: 11/19/89
Date Received: 11/16/89
Date Analyzed: 11/21/89
Date Reported: 11/29/89

ASSAY:
ARSENIC (EPA 7060)

MATRIX:SOIL, CA EXTRACT

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC	DET.LIM. mg/L
58559	B018B03.0	AS	2.6	5.0	0.30
58560	P240X00.0	AS	7.98	5.0	0.30
58561	P227X01.0	AS	6.24	5.0	0.30
58562	P246X01.0	AS	6.24	5.0	0.30

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895361
Date Extracted: 11/17/89 Date Received: 11/16/89
Date Analyzed: 11/27/89 Date Reported: 11/29/89

ASSAY:
LEAD(AA ASSAY EPA 7420),3010 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3010 ACID DIGEST

MATRIX: SOIL, CA EXTRACT

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
58563	P214X00.0	PB	21	5	0.07
58564	P208X00.0	PB	189	5	0.7
58565	P247X00.0	PB	76	5	0.7
58566	P186X00.0	PB	26	5	0.07
58567	B016805.5	CU	4.1	25	0.02
58568	B013X00.0	CU	13	25	0.02
58569	P252X00.0	CU	3.3	25	0.02
58570	P242X00.0	CU	74	25	0.2

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SAC.
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89
Date Received: 09/08/89
Date Analyzed: 09/25/89
Date Reported: 10/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
50879	MW-15	TPH	ND	0.63
50880	MW-16	TPH	ND	0.60
50881	MW-28	TPH	ND	0.71

THIS REPORT HAS BEEN REVIEWED AND APPROVED

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/15/89 Date Reported: 10/03/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
50879	MW-15	AS	0.0084	0.0050
		SE	ND	0.0050
		HG	0.0001	0.0001
50880	MW-16	AS	0.0060	0.0050
		SE	ND	0.0050
		HG	0.0002	0.0001
50881	MW-28	AS	0.0084	0.0050
		SE	ND	0.0050
		HG	ND	0.0001

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186
Date Collected: 08/31/89 Date Received: 09/08/89
Date Analyzed: 09/13/89 Date Reported: 10/03/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
50879	MW-15 WATER		
	AG	ND	0.0020 mg/L
	BA	0.135 mg/L	0.0020 mg/L
	BE	0.0027 mg/L	0.0020 mg/L
	CD	0.0018 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	0.012 mg/L	0.0040 mg/L
	CU	0.0517 mg/L	0.0020 mg/L
	MO	0.0075 mg/L	0.0040 mg/L
	NI	0.017 mg/L	0.010 mg/L
	PB	0.012 mg/L	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.016 mg/L	0.0040 mg/L
	ZN	0.0447 mg/L	0.0020 mg/L

CCUPAC
ENVIRONMENTAL SERVICES
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186

LABNO	SMPLNO-ID		RESULTS		DET. LIM.	
50880	MW-16 WATER					
		AG	ND		0.0020	mg/L
		BA	0.196	mg/L	0.0020	mg/L
		BE	ND		0.0020	mg/L
		CD	ND		0.0010	mg/L
		CO	ND		0.0040	mg/L
		CR	ND		0.0040	mg/L
		CU	ND		0.0025	mg/L
		MO	0.0057	mg/L	0.0040	mg/L
		NI	ND		0.010	mg/L
		PB	ND		0.010	mg/L
		SB	ND		0.10	mg/L
		TL	ND		0.040	mg/L
		V	0.011	mg/L	0.0040	mg/L
		ZN	0.0383	mg/L	0.0020	mg/L
50881	MW-28 WATER					
		AG	0.0024	mg/L	0.0020	mg/L
		BA	0.124	mg/L	0.0020	mg/L
		BE	ND		0.0020	mg/L
		CD	ND		0.0010	mg/L
		CO	ND		0.0040	mg/L
		CR	ND		0.0040	mg/L
		CU	0.0710	mg/L	0.0020	mg/L
		MO	ND		0.0040	mg/L
		NI	0.018	mg/L	0.010	mg/L
		PB	ND		0.010	mg/L
		SB	ND		0.10	mg/L
		TL	ND		0.040	mg/L
		V	0.011	mg/L	0.0040	mg/L
		ZN	0.014	mg/L	0.0020	mg/L

ND=Not Detected

ACCUTEST
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/18/89
Date Analyzed: 09/18/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
50879	MW-15		
	GASOLINE	ND	0.050 mg/L
50880	MW-16		
	GASOLINE	ND	0.050 mg/L
50881	MW-28		
	GASOLINE	ND	0.050 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/13/89
Date Analyzed: 09/13/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	50879	DET.	50880	DET.	50881	DET.	50883	DET.
	SMP#	MW-15	LIM.	MW-16	LIM.	MW-28	LIM.	FB-2	LIM.
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.
TOLUENE		ND	0.5	3.9	0.5	ND	0.5	ND	0.5
XYLENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/31/89
Date Extracted: 09/13/89
Date Analyzed: 09/13/89

Laboratory Job No.: 894186
Date Received: 09/08/89
Date Reported: 10/03/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	50879	DET.	50880	DET.	50881	DET.
	SMP#	MW-15	LIM.	MW-16	LIM.	MW-28	LIM.
PURGEABLES			ug/L		ug/L		ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	0.5	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	0.7	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		2.2	0.5	ND	0.5	2.4	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	0.8	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894186

COMPOUNDS:	LAB#	50882	DET.	50883	DET.
	SMP#	TC-2	LIM.	FB-2	LIM.
PURGEABLES		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		2.3	0.5	1.9	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 0173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894182
Date Collected: 09/06/89
Date Received: 09/07/89
Date Analyzed: 09/25/89
Date Reported: 09/28/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
50855	MW-11	TPH	ND	0.60

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894182
Date Collected: 09/06/89
Date Received: 09/07/89
Date Analyzed: 09/15/89
Date Reported: 09/28/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:LIQUID ,ACID DIGEST

LABNO SMPLNO	COMPOUND	FOUND mg/lt	CA STLC	DET.LIM. mg/lt
50855 MW-11	AS	0.0097	5.0	0.0050
	SE	ND	1.0	0.0050
	HG	0.00019	0.20	0.00010

ANALYST:PRECY ROBINSON

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3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894182
Date Collected: 09/06/89
Date Received: 09/07/89
Date Analyzed: 09/11/89
Date Reported: 09/28/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
50855	MW-11 WATER		
	AG	0.011 mg/L	0.010 mg/L
	BA	0.095 mg/L	0.010 mg/L
	BE	ND	0.010 mg/L
	CD	ND	0.0050 mg/L
	CO	0.091 mg/L	0.020 mg/L
	CR	0.027 mg/L	0.020 mg/L
	CU	0.015 mg/L	0.010 mg/L
	MO	0.031 mg/L	0.020 mg/L
	NI	0.16 mg/L	0.050 mg/L
	PB	0.057 mg/L	0.050 mg/L
	SB	ND	0.50 mg/L
	TL	ND	0.20 mg/L
	V	0.029 mg/L	0.020 mg/L
	ZN	0.029 mg/L	0.010 mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/06/89
Date Extracted: 09/18/89
Date Analyzed: 09/18/89

Laboratory Job No.: 894182
Date Received: 09/07/89
Date Reported: 09/28/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
50855	MW-11		
	GASOLINE	0.12 mg/l	0.05 mg/l

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/06/89
Date Extracted: 09/14/89
Date Analyzed: 09/14/89

Laboratory Job No.: 894182
Date Received: 09/07/89
Date Reported: 09/28/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	50855	DET.	50856	DET.
	SMP#	MW-11	LIM.	TC-1	LIM.
PURGEABLES		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		5.1	0.5	2.3	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		0.8	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		1.7	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894182

COMPOUNDS:	LAB#	50855	DET.	50856	DET.
	SMP#	MW-11	LIM.	TC-1	LIM.
PURGEABLES			ug/L		ug/L

ANALYST:DAVE BUSCH

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P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/06/89
Date Extracted: 09/14/89
Date Analyzed: 09/14/89

Laboratory Job No.: 894182
Date Received: 09/07/89
Date Reported: 09/28/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	80855	DET.
	SMP#		LIM.
PURGEABLES		ug/L	
BENZENE		ND	0.5
CHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
ETHYL BENZENE		ND	0.5
TOLUENE		6.0	0.5
XYLENE		ND	0.5

ANALYST:DAVE BUSCH

Phase 2

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Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269
Date Collected: 09/08/89
Date Received: 09/13/89
Date Analyzed: 09/25/89
Date Reported: 09/28/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51336	MW-24	TPH	ND	0.61
51337	MW-23	TPH	ND	0.61
51338	MW-21	TPH	ND	0.60
51339	MW-29	TPH	ND	0.71
51344	MW-22	TPH	ND	0.64
51345	MW-30	TPH	ND	0.61

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269
Date Collected: 09/08/89 Date Received: 09/13/89
Date Analyzed: 09/15/89 Date Reported: 09/28/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51336	MW-24	AS	0.015	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51337	MW-23	AS	0.0097	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51338	MW-21	AS	0.0084	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51339	MW-29	AS	0.0072	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51344	MW-22	AS	0.024	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

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Laboratory Job No.: 894269

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51345	MW-30	AS	0.0060	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269
Date Collected: 09/08/89 Date Received: 09/13/89
Date Analyzed: 09/15/89 Date Reported: 09/28/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51336	MW-24 WATER		
	AG	ND	0.0020 mg/L
	BA	0.194 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.011 mg/L	0.0040 mg/L
	ZN	0.0259 mg/L	0.0020 mg/L

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Laboratory Job No.: 894269

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51337	MW-23 WATER		
	AG	ND	0.0020 mg/L
	BA	0.169 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.011 mg/L	0.0040 mg/L
	ZN	0.019 mg/L	0.0020 mg/L
51338	MW-21 WATER		
	AG	ND	0.0020 mg/L
	BA	0.130 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	0.015 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.013 mg/L	0.0040 mg/L
	ZN	0.0099 mg/L	0.0020 mg/L

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Laboratory Job No.: 894269

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51339	MW-29 WATER		
	AG	ND	0.0020 mg/L
	BA	0.198 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	0.0016 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0058 mg/L	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.015 mg/L	0.0040 mg/L
	ZN	0.0285 mg/L	0.0020 mg/L
51344	MW-22 WATER		
	AG	ND	0.0020 mg/L
	BA	0.157 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	0.0010 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	0.017 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.010 mg/L	0.0040 mg/L
	ZN	0.015 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51345	MW-30 WATER		
	AG	ND	0.0020 mg/L
	BA	0.166 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	0.0011 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	0.0045 mg/L	0.0040 mg/L
	NI	0.015 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0079 mg/L	0.0040 mg/L
	ZN	0.012 mg/L	0.0020 mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/08/89
Date Extracted: 09/19/89
Date Analyzed: 09/19/89

Laboratory Job No.: 894269
Date Received: 09/13/89
Date Reported: 09/28/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO SMPLNO-ID	RESULTS	DET.LIM
51336 MW-24		
GASOLINE	ND	0.05 mg/l
51337 MW-23		
GASOLINE	ND	0.05 mg/l
51338 MW-21		
GASOLINE	ND	0.05 mg/l
51339 MW-29		
GASOLINE	ND	0.05 mg/l
51344 MW-22		
GASOLINE	ND	0.05 mg/l
51345 MW-30		
GASOLINE	ND	0.05 mg/l

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/08/89
Date Extracted: 09/16/89
Date Analyzed: 09/16/89

Laboratory Job No.: 894269
Date Received: 09/13/89
Date Reported: 09/28/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	51336	DET.	51337	DET.	51338	DET.
	SMP#	MW-24	LIM.	MW-23	LIM.	MW-21	LIM.
PURGEABLES			ug/L		ug/L		ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		2.8	0.5	4.3	0.5	1.6	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269

COMPOUNDS:	LAB#	51339	DET.	51340	DET.	51341	DET.
	SMP#	MW-29	LIM.	FB-3	LIM.	TC-3	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		5.0	0.5	1.9	0.5	2.3	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269

COMPOUNDS:	LAB#	51342	DET.	51343	DET.	51344	DET.
	SMP#	TC-4	LIM.	FB-4	LIM.	MW-22	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		1.7	0.5	1.2	0.5	3.0	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894269

COMPOUNDS:	LAB#	51345	DET.
	SMP#	MW-30	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		3.0	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		ND	0.5
1,2-DICHLOROETHANE		ND	0.5
1,1-DICHLOROETHENE		ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	1.0

ANALYST:DAVE BUSCH

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/08/89
Date Extracted: 09/16/89
Date Analyzed: 09/16/89

Laboratory Job No.: 894269
Date Received: 09/13/89
Date Reported: 09/28/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS: LAB# / SMP#	51336 MW-24	DET. LIM.	51337 MW-23	DET. LIM.	51338 MW-21	DET. LIM.	51339 MW-29	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP#	51340 FB-3	DET. LIM.	51343 FB-4	DET. LIM.	51344 MW-22	DET. LIM.	51345 MW-30	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	10	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

ANALYST:DAVE BUSCH

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ENVIRONMENTAL SERVICES

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Kevin Brown
Dames & Moore
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Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894280
Date Collected: 09/11/89
Date Received: 09/13/89
Date Analyzed: 09/25/89
Date Reported: 10/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51418	MW26	TPH	ND	0.62
51419	MW31	TPH	ND	0.60
51420	MW12	TPH	ND	0.61
51421	MW25	TPH	ND	0.61

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894280
Date Collected: 09/11/89 Date Received: 09/13/89
Date Analyzed: 09/15/89 Date Reported: 10/03/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY(AA FLAMELESS EPA 7470)

MATRIX:WATER, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51418	MW26	AS	0.011	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51419	MW31	AS	0.025	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51420	MW12	AS	0.028	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
51421	MW25	AS	0.011	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

ANALYST:PRECY ROBINSON

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894280
Date Collected: 09/11/89
Date Received: 09/13/89
Date Analyzed: 09/15/89
Date Reported: 10/03/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51418	MW26 WATER		
	AG	ND	0.0020 mg/L
	BA	0.101 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	0.0010 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.012 mg/L	0.0040 mg/L
	ZN	0.017 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894280

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51419	MW31 WATER		
	AG	ND	0.0020 mg/L
	BA	0.0954 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0022 mg/L	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.012 mg/L	0.0040 mg/L
	ZN	0.019 mg/L	0.0020 mg/L
51420	MW12 WATER		
	AG	ND	0.0020 mg/L
	BA	0.0881 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0049 mg/L	0.0040 mg/L
	CR	0.018 mg/L	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	0.0504 mg/L	0.0040 mg/L
	NI	0.015 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0620 mg/L	0.0040 mg/L
	ZN	0.0031 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894280

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51421	MW25 WATER		
	AG	ND	0.0020 mg/L
	BA	0.127 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	0.0012 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0030 mg/L	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.021 mg/L	0.0040 mg/L
	ZN	0.0091 mg/L	0.0020 mg/L

ND=Not Detected

ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/89
Date Extracted: 09/26/89
Date Analyzed: 09/26/89

Laboratory Job No.: 894280
Date Received: 09/13/89
Date Reported: 10/03/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
51418	MW26		
	GASOLINE	0.05 mg/L	0.05 mg/L
51419	MW31		
	GASOLINE	ND	0.05 mg/L
51420	MW12		
	GASOLINE	0.07 mg/L	0.05 mg/L
51421	MW25		
	GASOLINE	ND	0.05 mg/L

ANALYST:ROBERT REMLINGER

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ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/89
Date Extracted: 06/15/89
Date Analyzed: 06/15/89

Laboratory Job No.: 894280
Date Received: 09/13/89
Date Reported: 10/03/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS: PURGEABLES	LAB# SMP#	51418 MW26	DET. LIM. ug/L	51419 MW31	DET. LIM. ug/L	51420 MW12	DET. LIM. ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		2.6	0.5	2.7	0.5	6.4	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		1.0	0.5	1.1	0.5	1.3	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	4.0	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894280

COMPOUNDS:	LAB#	51421	DET.	51422	DET.	51423	DET.
	SMP#	MW25	LIM.	TC5	LIM.	FB5	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		0.9	0.5	1.1	0.5	1.1	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		1.0	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

ANALYST:DAVE BUSCH

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/11/89
Date Extracted: 09/15/89
Date Analyzed: 09/15/89

Laboratory Job No.: 894280
Date Received: 09/13/89
Date Reported: 10/03/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	51418	DET.	51419	DET.	51420	DET.	51421	DET.
	SMP#	MW26	LIM.	MW31	LIM.	MW12	LIM.	MW25	LIM.
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE		ND	0.5	ND	0.5	2.2	0.5	4.1	0.5
XYLENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS:	LAB#	51423	DET.
	SMP#	FB5	LIM.
PURGEABLES		ug/L	
BENZENE		ND	0.5
CHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
ETHYL BENZENE		ND	0.5
TOLUENE		ND	0.5
XYLENE		ND	0.5

ANALYST:DAVE BUSCH

ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894317
Date Collected: 09/13/89
Date Received: 09/15/89
Date Analyzed: 09/27/89
Date Reported: 10/10/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51775	MW-14	TPH	ND	0.64
51776	MW-32	TPH	ND	0.64
51777	MW-13	TPH	3.1	0.60

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

JB

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894317
Date Collected: 09/13/89 Date Received: 09/15/89
Date Analyzed: 09/26/89 Date Reported: 10/10/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	EP DW LEVEL	DET.LIM. mg/L
51775	MW-14	AS	ND	0.050	0.0050
		SE	ND	0.01	0.0050
		HG	0.00013	0.0020	0.00010
51776	MW-32	AS	ND	0.050	0.0050
		SE	ND	0.01	0.0050
		HG	ND	0.0020	0.00010
51777	MW-13	AS	0.018	0.050	0.0050
		SE	ND	0.01	0.0050
		HG	0.00013	0.0020	0.00010

ANALYST:PRECY ROBINSON

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894317
Date Collected: 09/13/89
Date Received: 09/15/89
Date Analyzed: 09/20/89
Date Reported: 10/10/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51775	MW-14 WATER		
	AG	ND	0.0020 mg/L
	BA	0.136 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0649 mg/L	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0021 mg/L
	MO	0.019 mg/L	0.0040 mg/L
	NI	0.169 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0083 mg/L	0.0040 mg/L
	ZN	0.010 mg/L	0.0020 mg/L

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894317

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51776	MW-32 WATER		
	AG	ND	0.0020 mg/L
	BA	0.142 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0640 mg/L	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0028 mg/L	0.0020 mg/L
	MO	0.014 mg/L	0.0040 mg/L
	NI	0.175 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0070 mg/L	0.0040 mg/L
	ZN	0.0088 mg/L	0.0020 mg/L
51777	MW-13 WATER		
	AG	ND	0.0020 mg/L
	BA	0.292 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0080 mg/L	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0073 mg/L	0.0020 mg/L
	MO	0.0091 mg/L	0.0040 mg/L
	NI	0.014 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	ND	0.0040 mg/L
	ZN	0.0289 mg/L	0.0020 mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/13/89
Date Extracted: 09/29/89
Date Analyzed: 09/29/89

Laboratory Job No.: 894317
Date Received: 09/15/89
Date Reported: 10/10/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
51775	MW-14		
	GASOLINE	0.1 mg/L	0.05 mg/L
51776	MW-32		
	GASOLINE	0.08 mg/L	0.05 mg/L
51777	MW-13		
	GASOLINE	51 mg/L	0.25 mg/L

ANALYST:ROBERT REMLINGER

ACCULABS
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/13/89
Date Extracted: 09/22/89
Date Analyzed: 09/22/89

Laboratory Job No.: 894317
Date Received: 09/15/89
Date Reported: 10/10/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS: LAB#	51775	DET.	51776	DET.	51777	DET.	51778	DET.
SMP#	MW-14	LIM.	MW-32	LIM.	MW-13	LIM.	FB-6	LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	5700	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.
TOLUENE	12.3	0.5	18.5	0.5	343	0.5	ND	0.5
XYLENE	ND	0.5	3.2	0.5	147	0.5	ND	0.5

ANALYST:DAVE BUSCH

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

LABORATORY RESULTS

Date Collected: 09/13/89
Date Extracted: 09/22/89
Date Analyzed: 09/22/89

Laboratory Job No.: 894317
Date Received: 09/15/89
Date Reported: 10/10/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	51775	DET.	51776	DET.	51777	DET.
	SMP#	MW-14	LIM.	MW-32	LIM.	MW-13	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		2.5	0.5	2.6	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		9.4	0.5	6.8	0.5	13.2	0.5
.,2-DICHLOROETHANE		3.7	0.5	3.9	0.5	360	0.5
1,1-DICHLOROETHENE		15.1	0.5	24	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	0.8	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		22.0	0.5	23.4	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		7.1	0.5	7.3	0.5	0.8	0.5
TRICHLOROETHENE		5.6	0.5	5.5	0.5	0.6	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894317

COMPOUNDS: PURGEABLES	LAB# 51778 SMP# FB-6 ug/L	DET. LIM. ug/L	51779 TC-6 ug/L	DET. LIM. ug/L
BROMODICHLOROMETHANE	ND	0.5	ND	0.5
BROMOFORM	ND	0.5	ND	0.5
BROMOMETHANE	ND	0.5	ND	0.5
CARBON TETRACHLORIDE	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5
CHLOROETHANE	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER	ND	1.0	ND	1.0
CHLOROFORM	1.0	0.5	0.9	0.5
CHLOROMETHANE	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5
1,1-DICHLOROETHANE	ND	0.5	ND	0.5
1,2-DICHLOROETHANE	ND	0.5	ND	0.5
1,1-DICHLOROETHENE	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE	ND	0.5	ND	0.5
METHYLENE CHLORIDE	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE	ND	0.5	ND	0.5
TETRACHLOROETHENE	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE	ND	0.5	ND	0.5
TRICHLOROETHENE	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE	ND	0.5	ND	0.5
VINYL CHLORIDE	ND	1.0	ND	1.0

ANALYST:DAVE BUSCH

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
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Anne Olson
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM15
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894320
Date Collected: 09/14/89
Date Received: 09/15/89
Date Analyzed: 09/27/89
Date Reported: 10/10/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
51786	MW-19	TPH	ND	0.61
51787	MW-20	TPH	ND	0.61

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 806024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894320
Date Collected: 09/14/89
Date Received: 09/15/89
Date Analyzed: 09/26/89
Date Reported: 10/10/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:LIQUID ,ACID DIGEST

LABNO SMPLNO	COMPOUND	FOUND mg/L	CA STLC	DET.LIM. mg/L
51786 MW-19	AS	ND	5.0	0.0050
	SE	ND	1.0	0.0050
	HG	ND	0.20	0.00010
51787 MW-20	AS	ND	5.0	0.0050
	SE	ND	1.0	0.0050
	HG	0.00016	0.20	0.00010

ANALYST:PRECY ROBINSON

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894320
Date Collected: 09/14/89
Date Received: 09/15/89
Date Analyzed: 09/20/89
Date Reported: 10/10/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51786	MW-19 WATER		
	AG	ND	0.0020 mg/L
	BA	0.133 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0072 mg/L	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	0.0041 mg/L	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	0.014 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.013 mg/L	0.0040 mg/L
	ZN	0.0206 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894320

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
51787	MW-20 WATER		
	AG	ND	0.0020 mg/L
	BA	0.166 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0044 mg/L	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0021 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.010 mg/L	0.0040 mg/L
	ZN	0.0021 mg/L	0.0020 mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Date Collected: 09/14/89
Date Extracted: 10/02/89
Date Analyzed: 10/02/89

Laboratory Job No.: 894320
Date Received: 09/15/89
Date Reported: 10/10/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
51786	MW-19		
	GASOLINE	ND	0.05 mg/L
51787	MW-20		
	GASOLINE	ND	0.05 mg/L

ANALYST:ROBERT REMLINGER

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/14/89
Date Extracted: 09/22/89
Date Analyzed: 09/22/89

Laboratory Job No.: 894320
Date Received: 09/15/89
Date Reported: 10/10/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	51786	DET.	51787	DET.	51788	DET.
	SMP#	MW-19	LIM.	MW-20	LIM.	FB-7	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5
TOLUENE		ND	0.5	ND	0.5	3.2	0.5
XYLENE		ND	0.5	ND	0.5	ND	0.5

ANALYST:DAVE BUSCH

CURTIS & TOMPKINS
ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/14/89
Date Extracted: 09/22/89
Date Analyzed: 09/22/89

Laboratory Job No.: 894320
Date Received: 09/15/89
Date Reported: 10/10/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	51786	DET.	51787	DET.	51788	DET.
	SMP#	MW-19	LIM.	MW-20	LIM.	FB-7	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		0.9	0.5	ND	0.5	0.8	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		1.0	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	0.7	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894320

COMPOUNDS:	LAB#	51789	DET.
	SMP#	TC-7	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		0.8	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		ND	0.5
1,2-DICHLOROETHANE		ND	0.5
1,1-DICHLOROETHENE		ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	1.0

ANALYST:DAVE BUSCH

ENVIRONMENTAL SERVICES
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PHASE 2

Anne Olson
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Sacramento, CA 95826

Client Code: DAMM15
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894388
Date Collected: 09/15/89
Date Received: 09/19/89
Date Analyzed: 09/27/89
Date Reported: 10/09/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52208	MW-27	TPH	ND	0.62
52209	MW-7	TPH	ND	0.60
52210	MW-33	TPH	ND	0.61

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

CEB

ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894388
Date Collected: 09/15/89 Date Received: 09/19/89
Date Analyzed: 09/26/89 Date Reported: 10/09/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	EP DW LEVEL	DET.LIM. mg/L
52208	MW-27	AS	ND	0.050	0.0050
		SE	ND	0.01	0.0050
		HG	ND	0.0020	0.00010
52209	MW-7	AS	ND	0.050	0.0050
		SE	ND	0.01	0.0050
		HG	0.00016	0.0020	0.00010
52210	MW-33	AS	ND	0.050	0.0050
		SE	ND	0.01	0.0050
		HG	0.00013	0.0020	0.00010

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894388
Date Collected: 09/15/89 Date Received: 09/19/89
Date Analyzed: 09/22/89 Date Reported: 10/09/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
52208	MW-27 WATER		
	AG	ND	0.0020 mg/L
	BA	0.0729 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	0.019 mg/L	0.0040 mg/L
	CU	ND	0.0035 mg/L
	MO	0.011 mg/L	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0419 mg/L	0.0040 mg/L
	ZN	ND	0.0063 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894388

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
52209	MW-7 WATER		
	AG	ND	0.0020 mg/L
	BA	0.208 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.0088 mg/L	0.0040 mg/L
	CR	0.0050 mg/L	0.0040 mg/L
	CU	ND	0.013 mg/L
	MO	0.026 mg/L	0.0040 mg/L
	NI	0.376 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0065 mg/L	0.0040 mg/L
	ZN	ND	0.0020 mg/L
52210	MW-33 WATER		
	AG	ND	0.0020 mg/L
	BA	0.215 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	0.010 mg/L	0.0040 mg/L
	CR	0.0045 mg/L	0.0040 mg/L
	CU	ND	0.012 mg/L
	MO	0.035 mg/L	0.0040 mg/L
	NI	0.405 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0050 mg/L	0.0040 mg/L
	ZN	0.0072 mg/L	0.0020 mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/15/89
Date Extracted: 10/04/89
Date Analyzed: 10/04/89

Laboratory Job No.: 894388
Date Received: 09/19/89
Date Reported: 10/09/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO SMPLNO-ID	RESULTS	DET.LIM
52208 MW-27 GASOLINE	ND	0.05 mg/L
52209 MW-7 GASOLINE	0.05 mg/L *	0.05 mg/L
52210 MW-33 GASOLINE	0.06 mg/L *	0.05 mg/L

NOTE:*CHROMATOGRAM SHOWED FID RESPONSE FOR SINGLE UNKNOWN PEAK.

ANALYST:ROBERT REMLINGER

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/15/89
Date Extracted: 09/22/89
Date Analyzed: 09/22/89

Laboratory Job No.: 894388
Date Received: 09/19/89
Date Reported: 10/09/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	52208	DET.	52209	DET.	52210	DET.
	SMP#	MW-27	LIM.	MW-7	LIM.	MW-33	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		5.5	0.5	1.1	0.5	1.1	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	15.0	0.5	14	0.5
1,2-DICHLOROETHANE		ND	0.5	3.1	0.5	3.1	0.5
1,1-DICHLOROETHENE		ND	0.5	23	0.5	24.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	26.0	0.5	26.0	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	1.1	0.5	1.0	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894388

COMPOUNDS:	LAB#	52211	DET.	52212	DET.
	SMP#	FB-8	LIM.	TC-8	LIM.
PURGEABLES		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0

ANALYST:DAVE BUSCH

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/15/89
Date Extracted: 09/22/89
Date Analyzed: 09/22/89

Laboratory Job No.: 894388
Date Received: 09/19/89
Date Reported: 10/09/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS: LAB#	52208	DET.	52209	DET.	52210	DET.	52211	DET.
SMP#	MW-27	LIM.	MW-7	LIM.	MW-33	LIM.	FB-8	LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

ANALYST:DAVE BUSCH

AMENDED REPORT

ACCULAB ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 10/10/89
Date Reported: 10/11/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52621	MW-2	TPH	ND	0.60
52622	MW-3	TPH	ND	0.60
52623	MW-4	TPH	ND	0.60

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 10/02/89
Date Reported: 10/11/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52621	MW-2	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52622	MW-3	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52623	MW-4	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 09/25/89
Date Reported: 10/11/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
52621	MW-2 WATER		
	AG	ND	0.0020 mg/L
	BA	0.0877 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0020 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0100 mg/L	0.0040 mg/L
	ZN	0.019 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457

LABNO	SMPLNO-ID	RESULTS		DET. LIM.	
52622	MW-3 WATER				
	AG	ND		0.0020	mg/L
	BA	0.125	mg/L	0.0020	mg/L
	BE	ND		0.0020	mg/L
	CD	ND		0.0010	mg/L
	CO	ND		0.0040	mg/L
	CR	ND		0.0040	mg/L
	CU	0.017	mg/L	0.0020	mg/L
	MO	ND		0.0040	mg/L
	NI	ND		0.010	mg/L
	PB	0.016	mg/L	0.010	mg/L
	SB	ND		0.10	mg/L
	TL	ND		0.040	mg/L
	V	0.011	mg/L	0.0040	mg/L
	ZN	0.019	mg/L	0.0020	mg/L
52623	MW-4 WATER				
	AG	ND		0.0020	mg/L
	BA	0.297	mg/L	0.0020	mg/L
	BE	ND		0.0020	mg/L
	CD	ND		0.0010	mg/L
	CO	0.013	mg/L	0.0040	mg/L
	CR	ND		0.0040	mg/L
	CU	ND		0.0020	mg/L
	MO	ND		0.0040	mg/L
	NI	0.034	mg/L	0.010	mg/L
	PB	0.012	mg/L	0.010	mg/L
	SB	ND		0.10	mg/L
	TL	ND		0.040	mg/L
	V	0.0055	mg/L	0.0040	mg/L
	ZN	0.0300	mg/L	0.0020	mg/L

NOTE: THIS IS AN AMENDED REPORT. 10/30/89.

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 10/05/89
Date Analyzed: 10/05/89

Laboratory Job No.: 894457
Date Received: 09/22/89
Date Reported: 10/11/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
52621	MW-2		
	GASOLINE	0.05 mg/L	0.05 mg/L
52622	MW-3		
	GASOLINE	ND	0.05 mg/L
52623	MW-4		
	GASOLINE	3.0 mg/L	0.25 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 09/27/89
Date Analyzed: 09/27/89

Laboratory Job No.: 894457
Date Received: 09/22/89
Date Reported: 10/11/89

PURGEABLE AROMATICS IN WATER (EPA 602)

COMPOUNDS:	LAB#	52620	DET.	52621	DET.	52622	DET.	52623	DET.
	SMP#	FB-9	LIM.	MW-2	LIM.	MW-3	LIM.	MW-4	LIM.
	dil.	1		1		1		10	
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5	210	5.0
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
TOLUENE		ND	0.5	1.4	0.5	ND	0.5	ND	5.0
XYLENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 09/27/89
Date Analyzed: 09/27/89

Laboratory Job No.: 894457
Date Received: 09/22/89
Date Reported: 10/11/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	52619	DET.	52620	DET.	52621	DET.
	SMP#	TC-9	LIM.	FB-9	LIM.	MW-2	LIM.
	dil.	1		1		1	
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	0.5	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457

COMPOUNDS:	LAB#	52622	DET.	52623	DET.
	SMP#	MW-3	LIM.	MW-4	LIM.
	dil.	1		10	
PURGEABLES		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	5.0
BROMOFORM		ND	0.5	ND	5.0
BROMOMETHANE		ND	0.5	ND	5.0
CARBON TETRACHLORIDE		ND	0.5	ND	5.0
CHLOROBENZENE		ND	0.5	ND	5.0
CHLOROETHANE		ND	0.5	ND	5.0
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	10.0
CHLOROFORM		ND	0.5	ND	5.0
CHLOROMETHANE		ND	0.5	ND	5.0
DIBROMOCHLOROMETHANE		ND	0.5	ND	5.0
1,4-DICHLOROBENZENE		ND	0.5	ND	5.0
1,3-DICHLOROBENZENE		ND	0.5	ND	5.0
1,2-DICHLOROBENZENE		ND	0.5	ND	5.0
1,1-DICHLOROETHANE		ND	0.5	7.1	5.0
1,2-DICHLOROETHANE		ND	0.5	120	5.0
1,1-DICHLOROETHENE		ND	0.5	ND	5.0
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	5.0
1,2-DICHLOROPROPANE		ND	0.5	ND	5.0
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	5.0
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	5.0
METHYLENE CHLORIDE		ND	0.5	ND	5.0
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	5.0
TETRACHLOROETHENE		ND	0.5	ND	5.0
1,1,1-TRICHLOROETHANE		ND	0.5	ND	5.0
1,1,2-TRICHLOROETHANE		ND	0.5	ND	5.0
TRICHLOROETHENE		ND	0.5	ND	5.0
TRICHLOROFLUOROMETHANE		ND	0.5	ND	5.0
VINYL CHLORIDE		ND	1.0	ND	10.0

ORIGINAL REPORT

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 10/10/89
Date Reported: 10/11/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52621	MW-2	TPH	ND	0.60
52622	MW-3	TPH	ND	0.60
52623	MW-4	TPH	ND	0.60

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 10/02/89
Date Reported: 10/11/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52621	MW-2	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52622	MW-3	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52623	MW-4	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 09/25/89
Date Reported: 10/11/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
52621	MW-2 WATER		
	AG	ND	0.0020 mg/L
	BA	0.0877 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.011 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0100 mg/L	0.0040 mg/L
	ZN	0.019 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894457

LABNO	SMPLNO-ID	RESULTS		DET. LIM.	
52622	MW-3 WATER				
	AG	ND		0.0020	mg/L
	BA	0.125	mg/L	0.0020	mg/L
	BE	ND		0.0020	mg/L
	CD	ND		0.0010	mg/L
	CO	ND		0.0040	mg/L
	CR	ND		0.0040	mg/L
	CU	0.017	mg/L	0.0020	mg/L
	MO	ND		0.0040	mg/L
	NI	ND		0.010	mg/L
	PB	0.016	mg/L	0.010	mg/L
	SB	ND		0.10	mg/L
	TL	ND		0.040	mg/L
	V	0.011	mg/L	0.0040	mg/L
	ZN	0.019	mg/L	0.0020	mg/L
52623	MW-4 WATER				
	AG	ND		0.0020	mg/L
	BA	0.297	mg/L	0.0020	mg/L
	BE	ND		0.0020	mg/L
	CD	ND		0.0010	mg/L
	CO	0.013	mg/L	0.0040	mg/L
	CR	ND		0.0040	mg/L
	CU	ND		0.011	mg/L
	MO	ND		0.0040	mg/L
	NI	0.034	mg/L	0.010	mg/L
	PB	0.012	mg/L	0.010	mg/L
	SB	ND		0.10	mg/L
	TL	ND		0.040	mg/L
	V	0.0055	mg/L	0.0040	mg/L
	ZN	0.0300	mg/L	0.0020	mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 10/05/89
Date Analyzed: 10/05/89

Laboratory Job No.: 894457
Date Received: 09/22/89
Date Reported: 10/11/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
52621	MW-2		
	GASOLINE	0.05 mg/L	0.05 mg/L
52622	MW-3		
	GASOLINE	ND	0.05 mg/L
52623	MW-4		
	GASOLINE	3.0 mg/L	0.25 mg/L

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 09/27/89
Date Analyzed: 09/27/89

Laboratory Job No.: 894457
Date Received: 09/22/89
Date Reported: 10/11/89

PURGEABLE AROMATICS IN WATER (EPA 602)

COMPOUNDS:	LAB#	52620	DET.	52621	DET.	52622	DET.	52623	DET.
	SMP#	FB-9	LIM.	MW-2	LIM.	MW-3	LIM.	MW-4	LIM.
	dil.	1		1		1		10	
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5	210	5.0
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0
TOLUENE		ND	0.5	1.4	0.5	ND	0.5	ND	5.0
XYLENE		ND	0.5	ND	0.5	ND	0.5	ND	5.0

ANALYST:DAVE BUSCH

ACCULAB
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3700 Lakeville Highway, Petaluma, CA 94954
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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 09/27/89
Date Analyzed: 09/27/89

Laboratory Job No.: 894457
Date Received: 09/22/89
Date Reported: 10/11/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	52619	DET.	52620	DET.	52621	DET.
	SMP#	TC-9	LIM.	FB-9	LIM.	MW-2	LIM.
	dil.	1		1		1	
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	0.5	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894545
Date Collected: 09/20/89
Date Received: 09/27/89
Date Analyzed: 10/13/89
Date Reported: 10/17/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
53231	MW-5	TPH	ND	0.60
53232	MW-6	TPH	ND	0.60
53233	MW-36	TPH	ND	0.60
53234	MW-1	TPH	ND	0.60

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894545
Date Collected: 09/20/89
Date Received: 09/27/89
Date Analyzed: 10/02/89
Date Reported: 10/17/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
53231	MW-5	AS	0.0093	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
53232	MW-6	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
53233	MW-36	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
53234	MW-1	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894545
Date Collected: 09/20/89
Date Received: 09/27/89
Date Analyzed: 09/28/89
Date Reported: 10/17/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
53231	MW-5 WATER		
	AG	ND	0.0020 mg/L
	BA	0.248 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	0.0011 mg/L	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0040 mg/L
	MO	ND	0.0040 mg/L
	NI	0.159 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0091 mg/L	0.0040 mg/L
	ZN	0.0222 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894545

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
53232	MW-6 WATER		
	AG	ND	0.0020 mg/L
	BA	0.223 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	0.0071 mg/L	0.0040 mg/L
	CU	ND	0.0040 mg/L
	MO	ND	0.0040 mg/L
	NI	0.039 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.013 mg/L	0.0040 mg/L
	ZN	0.017 mg/L	0.0020 mg/L
53233	MW-36 WATER		
	AG	ND	0.0020 mg/L
	BA	0.222 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	0.0066 mg/L	0.0040 mg/L
	CU	ND	0.0040 mg/L
	MO	ND	0.0040 mg/L
	NI	0.037 mg/L	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.012 mg/L	0.0040 mg/L
	ZN	0.0077 mg/L	0.0020 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894545

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
53234	MW-1 WATER		
	AG	ND	0.0020 mg/L
	BA	0.0829 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.0040 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.021 mg/L	0.0040 mg/L
	ZN	0.017 mg/L	0.0020 mg/L

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 10/10/89
Date Analyzed: 10/10/89

Laboratory Job No.: 894545
Date Received: 09/27/89
Date Reported: 10/17/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO SMPLNO-ID	RESULTS	DET.LIM
53231 MW-5 GASOLINE	0.06 mg/L	0.05 mg/L
53232 MW-6 GASOLINE	ND	0.05 mg/L
53233 MW-36 GASOLINE	ND	0.05 mg/L
53234 MW-1 GASOLINE	ND	0.05 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 10/04/89
Date Analyzed: 10/04/89

Laboratory Job No.: 894545
Date Received: 09/27/89
Date Reported: 10/17/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	53229	DET.	53230	DET.	53231	DET.
	SMP#	TC-11	LIM.	FB-11	LIM.	MW-5	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		1.5	0.5	1.3	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894545

COMPOUNDS:	LAB#	53232	DET.	53233	DET.	53234	DET.
	SMP#	MW-6	LIM.	MW-36	LIM.	MW-1	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

ACCUTEST
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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 10/04/89
Date Analyzed: 10/04/89

Laboratory Job No.: 894545
Date Received: 09/27/89
Date Reported: 10/17/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS: LAB# / SMP#	53230 FB-11	DET. LIM.	53231 MW-5	DET. LIM.	53232 MW-6	DET. LIM.	53233 MW-36	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP#	53234 MW-1	DET. LIM.
PURGEABLES	ug/L	
BENZENE	ND	0.5
CHLOROBENZENE	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5
ETHYL BENZENE	ND	0.5
TOLUENE	ND	0.5
XYLENE	ND	0.5

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Kevin Brown
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Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO.
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894477
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 10/10/89
Date Reported: 10/11/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52733	MW-8	TPH	ND	0.60
52734	MW-35	TPH	ND	0.60
52737	MW-18	TPH	ND	0.60
52738	MW-17	TPH	ND	0.60

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894477
Date Collected: 09/20/89
Date Received: 09/22/89
Date Analyzed: 10/02/89
Date Reported: 10/11/89

ARSENIC BY AA/GF(EPA 7060)
SELENIUM(AA/GF ASSAY EPA 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:WATER ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
52733	MW-8	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52734	MW-35	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52737	MW-18	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010
52738	MW-17	AS	ND	0.0050
		SE	ND	0.0050
		HG	ND	0.00010

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894477
Date Collected: 09/20/89 Date Received: 09/22/89
Date Analyzed: 09/25/89 Date Reported: 10/11/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS		DET. LIM.	
52733	MW-8 WATER				
	AG	ND		0.0020	mg/L
	BA	0.190	mg/L	0.0020	mg/L
	BE	ND		0.0020	mg/L
	CD	ND		0.0010	mg/L
	CO	ND		0.0040	mg/L
	CR	ND		0.0040	mg/L
	CU	ND		0.011	mg/L
	MO	ND		0.0040	mg/L
	NI	ND		0.010	mg/L
	PB	ND		0.010	mg/L
	SB	ND		0.10	mg/L
	TL	ND		0.040	mg/L
	V	0.014	mg/L	0.0040	mg/L
	ZN	0.012	mg/L	0.0026	mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894477

LABNO	SMPLNO-ID		RESULTS		DET. LIM.	
52734	MW-35 WATER					
		AG	ND		0.0020	mg/L
		BA	0.195	mg/L	0.0020	mg/L
		BE	ND		0.0020	mg/L
		CD	ND		0.0010	mg/L
		CO	ND		0.0040	mg/L
		CR	ND		0.0040	mg/L
		CU	ND		0.011	mg/L
		MO	ND		0.0040	mg/L
		NI	ND		0.010	mg/L
		PB	0.011	mg/L	0.010	mg/L
		SB	ND		0.10	mg/L
		TL	ND		0.040	mg/L
		V	0.017	mg/L	0.0040	mg/L
		ZN	0.014	mg/L	0.0026	mg/L
52737	MW-18 WATER					
		AG	ND		0.0020	mg/L
		BA	0.170	mg/L	0.0020	mg/L
		BE	ND		0.0020	mg/L
		CD	ND		0.0010	mg/L
		CO	0.0093	mg/L	0.0040	mg/L
		CR	ND		0.0040	mg/L
		CU	ND		0.011	mg/L
		MO	ND		0.0040	mg/L
		NI	0.010	mg/L	0.010	mg/L
		PB	ND		0.010	mg/L
		SB	ND		0.10	mg/L
		TL	ND		0.040	mg/L
		V	0.0090	mg/L	0.0040	mg/L
		ZN	0.012	mg/L	0.0026	mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894477

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
52738	MW-17 WATER		
	AG	ND	0.0020 mg/L
	BA	0.106 mg/L	0.0020 mg/L
	BE	ND	0.0020 mg/L
	CD	ND	0.0010 mg/L
	CO	ND	0.0040 mg/L
	CR	ND	0.0040 mg/L
	CU	ND	0.011 mg/L
	MO	ND	0.0040 mg/L
	NI	ND	0.010 mg/L
	PB	ND	0.010 mg/L
	SB	ND	0.10 mg/L
	TL	ND	0.040 mg/L
	V	0.0076 mg/L	0.0040 mg/L
	ZN	0.0045 mg/L	0.0026 mg/L

ND=Not Detected
ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 10/04/89
Date Analyzed: 10/04/89

Laboratory Job No.: 894477
Date Received: 09/22/89
Date Reported: 10/11/89

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO SMPLNO-ID	RESULTS	DET.LIM
52733 MW-8		
GASOLINE	ND	0.05 mg/L
52734 MW-35		
GASOLINE	ND	0.05 mg/L
52737 MW-18		
GASOLINE	0.05 mg/L	0.05 mg/L
52738 MW-17		
GASOLINE	ND	0.05 mg/L

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 09/27/89
Date Analyzed: 09/27/89

Laboratory Job No.: 894477
Date Received: 09/22/89
Date Reported: 10/11/89

PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS: LAB# / SMP#	52733 MW-8	DET. LIM.	52734 MW-35	DET. LIM.	52736 FB-10	DET. LIM.	52737 MW-18	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	2.5	0.5	1.7	0.5	ND	0.5	1.3	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP#	52738 MW-17	DET. LIM.
PURGEABLES	ug/L	
BENZENE	ND	0.5
CHLOROBENZENE	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5
ETHYL BENZENE	ND	0.5
TOLUENE	1.3	0.5
XYLENE	ND	0.5

ANALYST:DAVE BUSCH

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/20/89
Date Extracted: 09/27/89
Date Analyzed: 09/27/89

Laboratory Job No.: 894477
Date Received: 09/22/89
Date Reported: 10/11/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	52733	DET.	52734	DET.	52735	DET.
	SMP#	MW-8	LIM.	MW-35	LIM.	TC-10	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		1.5	0.5	1.4	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894477

COMPOUNDS:	LAB#	52736	DET.	52737	DET.	52738	DET.
	SMP#	FB-10	LIM.	MW-18	LIM.	MW-17	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	1.5	0.5	2.6	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	3.4	0.5	0.5	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	4.2	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	1.9	0.5	1.1	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	0.8	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	9.4	0.5	0.7	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

ANALYST:DAVE BUSCH

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894800
Date Extracted: 10/19/89
Date Analyzed: 10/19/89
Date Received: 10/13/89
Date Reported: 10/25/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS: PURGEABLES	LAB# SMP#	54926 MW-37 ug/L	DET. LIM.	54927 BLANK ug/L	DET. LIM.	54928 MW-12 ug/L	DET. LIM.
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		4.0	0.5	ND	0.5	4.5	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		3.6	0.5	ND	0.5	4.9	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		7.1	0.5	ND	0.5	26.3	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5

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Telephone: (707) 763-6245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894800

COMPOUNDS:	LAB#	54926	DET.	54927	DET.	54928	DET.
	SMP#	MW-37	LIM.	BLANK	LIM.	MW-12	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		4.4	0.5	ND	0.5	5.7	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894800
Date Extracted: 10/19/89
Date Analyzed: 10/19/89
Date Received: 10/13/89
Date Reported: 10/25/89

PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	54926	DET.	54927	DET.	54928	DET.
	SMP#	MW-37	LIM.	BLANK	LIM.	MW-12	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BENZENE		0.5	0.5	ND	0.5	0.8	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5
TOLUENE		ND	0.5	ND	0.5	ND	0.5
XYLENE		ND	0.5	ND	0.5	ND	0.5

followup rec'd

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DEC 4 1989
DAMES & MOORE

Paul Murphy
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM17
Contract/PO # QUOTE 1001
Survey #
UPRR SACRAMENTO
Project/Release # 00173-002-044

L A B O R A T O R Y R E S U L T S

Date Collected: 11/02/89
Date Extracted: 11/09/89
Date Analyzed: 11/09/89

Laboratory Job No.: 895145
Date Received: 11/03/89
Date Reported: 11/30/89

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA602)

COMPOUNDS:	LAB#	57213	DET.	57214	DET.	57215	DET.	57216	DET.
	SMP#	MW-14	LIM.	FB-12	LIM.	MW-18	LIM.	MW-13	LIM.
	dil.	1		1		1		40	
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5	6700	20.0
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	20.0
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	20.0
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	20.0
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	20.0
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5	50	20.0
TOLUENE		ND	0.5	ND	0.5	ND	0.5	210	20.0
XYLENE		ND	0.5	ND	0.5	ND	0.5	88	20.0

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895145

COMPOUNDS:	LAB#	57217	DET.
	SMP#	MW-38	LIM.
	dil.	40	
PURGEABLES		ug/L	
BENZENE		6800	20.0
CHLOROBENZENE		ND	20.0
1,2-DICHLOROBENZENE		ND	20.0
1,3-DICHLOROBENZENE		ND	20.0
1,4-DICHLOROBENZENE		ND	20.0
ETHYL BENZENE		65	20.0
TOLUENE		220	20.0
XYLENE		87	20.0

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 11/02/89
Date Extracted: 11/10/89
Date Analyzed: 11/10/89

Laboratory Job No.: 895145
Date Received: 11/03/89
Date Reported: 11/30/89

ASSAY:
PURGEABLES IN WATER (EPA 5030/8010)

COMPOUNDS:	LAB#	57213	DET.	57214	DET.	57215	DET.
	SMP#	MW-14	LIM.	FB-12	LIM.	MW-18	LIM.
	dil.	1		1		1	
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		2.5	0.5	0.9	0.5	0.5	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		9.3	0.5	ND	0.5	7.8	0.5
1,2-DICHLOROETHANE		7.7	0.5	ND	0.5	0.5	0.5
1,1-DICHLOROETHENE		75	0.5	ND	0.5	92	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		20	0.5	ND	0.5	6.9	0.5
1,1,2-TRICHLOROETHANE		6.3	0.5	ND	0.5	1.0	0.5
TRICHLOROETHENE		4.7	0.5	ND	0.5	13	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5

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3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-5245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895145

COMPOUNDS:	LAB#	57213	DET.	57214	DET.	57215	DET.
	SMP#	MW-14	LIM.	FB-12	LIM.	MW-18	LIM.
	dil.	1		1		1	
PURGEABLES		ug/L		ug/L		ug/L	
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 806024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 895145

COMPOUNDS:	LAB#	57216	DET.	57217	DET.	57218	DET.
	SMP#	MW-13	LIM.	MW-38	LIM.	TC-12	LIM.
	dil.	40		40		1	
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	20.0	ND	20.0	ND	0.5
BROMOFORM		ND	20.0	ND	20.0	ND	0.5
BROMOMETHANE		ND	20.0	ND	20.0	ND	0.5
CARBON TETRACHLORIDE		ND	20.0	ND	20.0	ND	0.5
CHLOROBENZENE		ND	20.0	ND	20.0	ND	0.5
CHLOROETHANE		ND	20.0	ND	20.0	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	40.0	ND	40.0	ND	1.0
CHLOROFORM		ND	20.0	ND	20.0	16	0.5
CHLOROMETHANE		ND	20.0	ND	20.0	ND	0.5
DIBROMOCHLOROMETHANE		ND	20.0	ND	20.0	ND	0.5
1,4-DICHLOROBENZENE		ND	20.0	ND	20.0	ND	0.5
1,3-DICHLOROBENZENE		ND	20.0	ND	20.0	ND	0.5
1,2-DICHLOROBENZENE		ND	20.0	ND	20.0	ND	0.5
1,1-DICHLOROETHANE		20	20.0	20	20.0	ND	0.5
1,2-DICHLOROETHANE		270	20.0	270	20.0	ND	0.5
1,1-DICHLOROETHENE		24	20.0	25	20.0	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	20.0	ND	20.0	ND	0.5
1,2-DICHLOROPROPANE		ND	20.0	ND	20.0	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	20.0	ND	20.0	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	20.0	ND	20.0	ND	0.5
METHYLENE CHLORIDE		ND	20.0	ND	20.0	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	20.0	ND	20.0	ND	0.5
TETRACHLOROETHENE		ND	20.0	ND	20.0	ND	0.5
1,1,1-TRICHLOROETHANE		ND	20.0	ND	20.0	ND	0.5
1,1,2-TRICHLOROETHANE		ND	20.0	ND	20.0	ND	0.5
TRICHLOROETHENE		ND	20.0	ND	20.0	ND	0.5
TRICHLOROFLUOROMETHANE		ND	20.0	ND	20.0	ND	0.5
VINYL CHLORIDE		ND	40.0	ND	40.0	ND	1.0

Cr+6 Results

Enseco

RECEIVED
1989
DAMES & MOORE

October 2, 1989
Lab ID: 049094 ✓

Kevin J. Brown
Dames & Moore
9300 Tech Center Dr.
Suite 100
Sacramento, CA 95826

Dear Mr. Brown:

Enclosed is the report for the thirty-three aqueous samples for your Union Pacific Railroad - Sacramento Project, under your Job# 00173022044 which were received at Enseco-Cal Lab on 6 September 1989.

The report consists of the following sections:

I	Sample Description
II	Analysis Request
III	Quality Control Report
IV	Analysis Results

If you have any questions, please feel free to call.

Sincerely,

Beth Kelly

Beth Kelly
Program Administrator

jl

Enseco Incorporated
2544 Industrial Boulevard
West Sacramento, California 95691
916/372-1393 Facsimile: 916/372-1059

I Sample Description

See the attached Sample Description Information.

The samples were received under chain-of-custody.

II Analysis Request

The following analytical test was requested.

Lab ID	Analysis Description
049094-1 thru 33	Chromium VI

III Quality Control

A. Project Specific QC. No project specific QC (i.e., spikes and/or duplicates) was requested.

B. Laboratory Control Samples - The LCS Program

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The DCS results associated with your samples are on the attached Duplicate Control Sample Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{\text{(measured concentration)}}{\text{(actual concentration)}} \times 100$$

Precision is measured using duplicate tests by Relative Percent Difference (RPD) as in:

$$\text{RPD} = \frac{\text{(\% recovery test 1 - \% recovery test 2)}}{\text{(\% recovery test 1 + \% recovery test 2)/2}} \times 100$$

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/-3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. In cases where there is not enough historical data, EPA limits or advisory limits are set, with the approval of the Quality Assurance department.

IV Analysis Results

Test methods may include minor modifications of published EPA Methods such as reporting limits or parameter lists. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis, i.e., no correction is made for moisture content, unless the method requires or the client requests that such correction be made.

Results are on the attached data sheet.

SAMPLE DESCRIPTION INFORMATION
for
Dames & Moore

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
049094-0001-SA	MW-11	AQUEOUS	06 SEP 89	15:30	06 SEP 89
049094-0002-SA	MW-15	AQUEOUS	07 SEP 89	14:00	07 SEP 89
049094-0003-SA	MW-16	AQUEOUS	07 SEP 89	09:15	07 SEP 89
049094-0004-SA	MW-28	AQUEOUS	07 SEP 89	13:00	07 SEP 89
049094-0005-SA	MW-21	AQUEOUS	08 SEP 89	13:15	08 SEP 89
049094-0006-SA	MW-23	AQUEOUS	08 SEP 89	11:00	08 SEP 89
049094-0007-SA	MW-24	AQUEOUS	08 SEP 89	08:40	08 SEP 89
049094-0008-SA	MW-29	AQUEOUS	08 SEP 89	09:30	08 SEP 89
049094-0009-SA	MW-22	AQUEOUS	11 SEP 89	13:15	12 SEP 89
049094-0010-SA	MW-30	AQUEOUS	11 SEP 89	14:15	12 SEP 89
049094-0011-SA	MW-25	AQUEOUS	11 SEP 89	16:50	12 SEP 89
049094-0012-SA	MW-26	AQUEOUS	12 SEP 89	09:40	12 SEP 89
049094-0013-SA	MW-31	AQUEOUS	12 SEP 89	09:40	12 SEP 89
049094-0014-SA	MW-12	AQUEOUS	12 SEP 89	09:40	12 SEP 89
049094-0015-SA	MW-14	AQUEOUS	13 SEP 89	11:00	13 SEP 89
049094-0016-SA	MW-32	AQUEOUS	13 SEP 89	12:10	13 SEP 89
049094-0017-SA	MW-13	AQUEOUS	13 SEP 89	15:05	13 SEP 89
049094-0018-SA	MW-19	AQUEOUS	14 SEP 89	11:45	14 SEP 89
049094-0019-SA	MW-20	AQUEOUS	14 SEP 89	15:05	14 SEP 89
049094-0020-SA	MW-27	AQUEOUS	15 SEP 89	11:05	15 SEP 89
049094-0021-SA	MW-7	AQUEOUS	15 SEP 89	14:30	15 SEP 89
049094-0022-SA	MW-33	AQUEOUS	15 SEP 89	15:15	15 SEP 89
049094-0023-SA	MW-2	AQUEOUS	20 SEP 89	10:50	20 SEP 89
049094-0024-SA	MW-3	AQUEOUS	20 SEP 89	13:15	20 SEP 89
049094-0025-SA	MW-4	AQUEOUS	20 SEP 89	15:20	20 SEP 89
049094-0026-SA	MW-8	AQUEOUS	20 SEP 89	16:55	20 SEP 89
049094-0027-SA	MW-35	AQUEOUS	20 SEP 89	17:40	20 SEP 89
049094-0028-SA	MW-18	AQUEOUS	21 SEP 89	10:30	21 SEP 89
049094-0029-SA	MW-17	AQUEOUS	21 SEP 89	15:15	21 SEP 89
049094-0030-SA	MW-5	AQUEOUS	22 SEP 89	10:00	22 SEP 89
049094-0031-SA	MW-6	AQUEOUS	22 SEP 89	12:20	22 SEP 89
049094-0032-SA	MW-36	AQUEOUS	22 SEP 89	13:00	22 SEP 89
049094-0033-SA	MW-1	AQUEOUS	22 SEP 89	15:15	22 SEP 89

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QC LOT ASSIGNMENT REPORT
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
049094-0001-SA	AQUEOUS	CR6-A	06 SEP 89-A	-
049094-0002-SA	AQUEOUS	CR6-A	07 SEP 89-A	-
049094-0003-SA	AQUEOUS	CR6-A	07 SEP 89-A	-
049094-0004-SA	AQUEOUS	CR6-A	07 SEP 89-A	-
049094-0005-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0006-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0007-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0008-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0009-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0010-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0011-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0012-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0013-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0014-SA	AQUEOUS	CR6-A	08 SEP 89-A	-
049094-0015-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0016-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0017-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0018-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0019-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0020-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0021-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0022-SA	AQUEOUS	CR6-A	13 SEP 89-A	-
049094-0023-SA	AQUEOUS	CR6-A	20 SEP 89-A	-
049094-0024-SA	AQUEOUS	CR6-A	20 SEP 89-A	-
049094-0025-SA	AQUEOUS	CR6-A	20 SEP 89-A	-
049094-0026-SA	AQUEOUS	CR6-A	20 SEP 89-A	-
049094-0027-SA	AQUEOUS	CR6-A	20 SEP 89-A	-
049094-0028-SA	AQUEOUS	CR6-A	21 SEP 89-A	-
049094-0029-SA	AQUEOUS	CR6-A	21 SEP 89-A	-
049094-0030-SA	AQUEOUS	CR6-A	22 SEP 89-A	-
049094-0031-SA	AQUEOUS	CR6-A	22 SEP 89-A	-
049094-0032-SA	AQUEOUS	CR6-A	22 SEP 89-A	-
049094-0033-SA	AQUEOUS	CR6-A	22 SEP 89-A	-

DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Category: CR6-A Matrix: AQUEOUS QC Lot: 06 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0980	0.0990	0.0985	99	87-117	1.0	10
Category: CR6-A Matrix: AQUEOUS QC Lot: 07 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0970	0.0990	0.0980	98	87-117	2.0	10
Category: CR6-A Matrix: AQUEOUS QC Lot: 08 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0910	0.0950	0.0930	93	87-117	4.3	
Category: CR6-A Matrix: AQUEOUS QC Lot: 13 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0960	0.0970	0.0965	97	87-117	1.0	10
Category: CR6-A Matrix: AQUEOUS QC Lot: 20 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0980	0.0970	0.0975	98	87-117	1.0	10

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE CONTROL SAMPLE REPORT
et Chemistry Analysis and Preparation (cont.)

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision (RPD) Limit
Category: CR6-A Matrix: AQUEOUS QC Lot: 21 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0970	0.0980	0.0975	98	87-117	1.0	10
Category: CR6-A Matrix: AQUEOUS QC Lot: 22 SEP 89-A Concentration Units: mg/L								
Chromium VI	0.1	0.0990	0.0970	0.0980	98	87-117	2.0	10

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Chromium VI

Method 7196

Client Name: Dames & Moore
Matrix: AQUEOUS
Units: mg/L

Received: 06 SEP 89
Authorized: 06 SEP 89

Lab ID	Client ID	Result	Reporting Limit	Date Prepared	Date Analyzed
049094-0001-SA	MW-11	ND	0.010	NA	06 SEP 89
049094-0002-SA	MW-15	ND	0.010	NA	07 SEP 89
049094-0003-SA	MW-16	ND	0.010	NA	07 SEP 89
049094-0004-SA	MW-28	ND	0.010	NA	07 SEP 89
049094-0005-SA	MW-21	ND	0.010	NA	08 SEP 89
049094-0006-SA	MW-23	ND	0.010	NA	08 SEP 89
049094-0007-SA	MW-24	ND	0.010	NA	08 SEP 89
049094-0008-SA	MW-29	ND	0.010	NA	08 SEP 89
049094-0009-SA	MW-22	ND	0.010	NA	12 SEP 89
049094-0010-SA	MW-30	ND	0.010	NA	12 SEP 89
049094-0011-SA	MW-25	ND	0.010	NA	12 SEP 89
049094-0012-SA	MW-26	ND	0.010	NA	12 SEP 89
049094-0013-SA	MW-31	ND	0.010	NA	12 SEP 89
049094-0014-SA	MW-12	0.010	0.010	NA	12 SEP 89
049094-0015-SA	MW-14	ND	0.010	NA	13 SEP 89
049094-0016-SA	MW-32	ND	0.010	NA	13 SEP 89
049094-0017-SA	MW-13	ND	0.010	NA	13 SEP 89
049094-0018-SA	MW-19	ND	0.010	NA	14 SEP 89
049094-0019-SA	MW-20	ND	0.010	NA	14 SEP 89
049094-0020-SA	MW-27	0.016	0.010	NA	15 SEP 89
049094-0021-SA	MW-7	ND	0.010	NA	15 SEP 89
049094-0022-SA	MW-33	ND	0.010	NA	15 SEP 89
049094-0023-SA	MW-2	ND	0.010	NA	20 SEP 89
049094-0024-SA	MW-3	ND	0.010	NA	20 SEP 89
049094-0025-SA	MW-4	ND	0.010	NA	20 SEP 89
049094-0026-SA	MW-8	ND	0.010	NA	20 SEP 89
049094-0027-SA	MW-35	ND	0.010	NA	20 SEP 89
049094-0028-SA	MW-18	ND	0.010	NA	21 SEP 89
049094-0029-SA	MW-17	ND	0.010	NA	21 SEP 89
049094-0030-SA	MW-5	ND	0.010	NA	22 SEP 89
049094-0031-SA	MW-6	ND	0.010	NA	22 SEP 89
049094-0032-SA	MW-36	ND	0.010	NA	22 SEP 89
049094-0033-SA	MW-1	ND	0.010	NA	22 SEP 89

N.D. = Not Detected
N.A. = Not Applicable

Reported By: Bill Pinos

Approved By: Flo Burbano

The cover letter is an integral part of this report.
Rev 230787

BACKGROUND PHASE 2

ACCULAB ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

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OCT 0 2 1989
DAMES & MOORE

Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM1
Survey # UP/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894387
Date Collected: 09/16/89
Date Received: 09/19/89
Date Analyzed: 09/26/89
Date Reported: 09/28/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

ATRIX:SOIL ,ACID DIGEST

LABNO SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
52199 BG-001	AS	7.54	500	0.60
	PB	11	1,000	1.4
	CU	24.0	2,500	0.40
52200 BG-002	AS	8.36	500	0.60
	PB	25.6	1,000	1.4
	CU	26.2	2,500	0.40
52201 BG-003	AS	8.36	500	0.60
	PB	40.4	1,000	1.4
	CU	23.6	2,500	0.40
52202 BG-004	AS	6.36	500	0.60
	PB	26.8	1,000	1.4
	CU	16.4	2,500	0.40
52203 BG-005	AS	7.54	500	0.60
	PB	7.8	1,000	1.4
	CU	24.6	2,500	0.40

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

ACCULAB
ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894387

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
52204	BG-006	AS	7.34	500	0.60
		PB	9.8	1,000	1.4
		CU	21.8	2,500	0.40
52205	BG-007	AS	7.94	500	0.60
		PB	17.2	1,000	1.4
		CU	22.2	2,500	0.40
52206	BG-008	AS	7.94	500	0.60
		PB	30.0	1,000	1.4
		CU	26.0	2,500	0.40
52207	BG-009	AS	8.36	500	0.60
		PB	29.2	1,000	1.4
		CU	21.0	2,500	0.40

ANALYST:PRECY ROBINSON

DHS OFF-SITE SAMPLES

ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89
Date Received: 10/02/89
Date Analyzed: 10/10/89
Date Reported: 10/20/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
53627	T11A014	TPH	ND	6
53628	T11B014	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89 Date Received: 10/02/89
Date Analyzed: 10/05/89 Date Reported: 10/20/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3010 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3010 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3010 ACID DIGEST
BERYLLIUM(AA-GF,ASSAY EPA 7091)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
53627	T11A014	AS	6.38	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
53628	T11B014	AS	6.92	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
53629	P229X06.5	AS	6.20	500	0.60
		PB	12	1,000	1.4
		CU	24.0	2,500	0.40
		SB	10	500	10
		BE	4.0	75	0.40
53630	DHS-001-34	AS	6.56	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
53631	DHS-002-31	AS	6.38	500	0.60
		SE	ND	100	0.60
		HG	0.20	20	0.040

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
53632	DHS-003-30	AS	6.38	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89
Date Received: 10/02/89
Date Analyzed: 10/03/89
Date Reported: 10/20/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS		CA TTLC	DET. LIM.	
53627	T11A014 SOIL					
	AG	ND		500	0.20	mg/kg
	BA	142	mg/kg	10,000	0.20	mg/kg
	BE	0.27	mg/kg	75	0.20	mg/kg
	CD	2.74	mg/kg	100	0.098	mg/kg
	CO	17.4	mg/kg	8,000	0.39	mg/kg
	CR	51.0	mg/kg	2,500	0.39	mg/kg
	CU	27.7	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	62.6	mg/kg	2,000	0.98	mg/kg
	PB	2.8	mg/kg	1,000	0.98	mg/kg
	SB	ND		500	9.8	mg/kg
	TL	ND		700	3.9	mg/kg
	V	49.5	mg/kg	2,400	0.39	mg/kg
	ZN	51.4	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
53628	T11B014 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	107	mg/kg	10,000	0.20	mg/kg
	BE	0.21	mg/kg	75	0.20	mg/kg
	CD	2.26	mg/kg	100	0.099	mg/kg
	CO	14.5	mg/kg	8,000	0.39	mg/kg
	CR	46.3	mg/kg	2,500	0.39	mg/kg
	CU	24.5	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	47.5	mg/kg	2,000	0.99	mg/kg
	PB	11.7	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	3.9	mg/kg
	V	49.3	mg/kg	2,400	0.39	mg/kg
	ZN	45.7	mg/kg	5,000	0.20	mg/kg
53630	DHS-001-3400SOIL			CA TTLC		
	AG	0.23	mg/kg	500	0.20	mg/kg
	BA	99.7	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	2.26	mg/kg	100	0.099	mg/kg
	CO	8.20	mg/kg	8,000	0.40	mg/kg
	CR	44.7	mg/kg	2,500	0.40	mg/kg
	CU	25.8	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	45.6	mg/kg	2,000	0.99	mg/kg
	PB	1,550	mg/kg	1,000 *	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	37.4	mg/kg	2,400	0.40	mg/kg
	ZN	185	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
53631	DHS-002-3130SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	152	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	2.58	mg/kg	100	0.098	mg/kg
	CO	13.0	mg/kg	8,000	0.39	mg/kg
	CR	48.5	mg/kg	2,500	0.39	mg/kg
	CU	27.5	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	44.7	mg/kg	2,000	0.98	mg/kg
	PB	149	mg/kg	1,000	0.98	mg/kg
	SB	ND		500	9.8	mg/kg
	TL	ND		700	3.9	mg/kg
	V	45.0	mg/kg	2,400	0.39	mg/kg
	ZN	180	mg/kg	5,000	0.20	mg/kg
53632	DHS-003-3092SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	155	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	3.29	mg/kg	100	0.100	mg/kg
	CO	9.65	mg/kg	8,000	0.40	mg/kg
	CR	45.6	mg/kg	2,500	0.40	mg/kg
	CU	41.7	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	38.3	mg/kg	2,000	1.00	mg/kg
	PB	123	mg/kg	1,000	1.00	mg/kg
	SB	ND		500	10.0	mg/kg
	TL	ND		700	4.0	mg/kg
	V	43.6	mg/kg	2,400	0.40	mg/kg
	ZN	285	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89 Date Received: 10/02/89
Date Analyzed: 10/03/89 Date Reported: 10/20/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	53627	DET.	53628	DET.
	SMP#	T11A014	LIM.	T11B014	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
ROMOMETHANE		ND	2.5	ND	2.5
ARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

COMPOUNDS:	LAB#	53627	DET.	53628	DET.
	SMP#	T11A014	LIM.	T11B014	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
/INYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	5.1	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
*-METHYL-2-PENTANONE		ND	5.0	ND	5.0
.YRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		104%		118%	
TOLUENE-D8		113%		110%	
4-BROMOFLUOROBENZENE		109%		98%	

ND: NOT DETECTED.

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/28/89
Date Extracted: 10/04/89
Date Analyzed: 10/04/89

Laboratory Job No.: 894612
Date Received: 10/02/89
Date Reported: 10/20/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
53627	T11A014		
	GASOLINE	ND	1.0 mg/kg
53628	T11B014		
	GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/28/89
Date Extracted: 10/03/89
Date Analyzed: 10/16/89

Laboratory Job No.: 894612
Date Received: 10/02/89
Date Reported: 10/20/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
53627 T11A014				
NAPHTHALENE	0.10	mg/kg	0.069	mg/kg
ACENAPHTHYLENE	0.16	mg/kg	0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg
53628 T11B014				
NAPHTHALENE	0.070	mg/kg	0.069	mg/kg
ACENAPHTHYLENE	0.26	mg/kg	0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg
53627 T11A014				
PHENANTHRENE	0.10	mg/kg	0.026	mg/kg
ANTHRACENE	ND		0.059	mg/kg
FLUORANTHENE	0.0018	mg/kg	0.0014	mg/kg
PYRENE	0.0062	mg/kg	0.0047	mg/kg
BENZO(A)ANTHRACENE	0.0014	mg/kg	0.00055	mg/kg
CHRYSENE	0.021	mg/kg	0.0074	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00099	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00027	mg/kg
BENZO(A)PYRENE	ND		0.00042	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00089	mg/kg
BENZO(GHI)PERYLENE	ND		0.00085	mg/kg
INDENO(123CD)PYRENE	ND		0.0036	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
53628	T11B014				
	PHENANTHRENE	0.14	mg/kg	0.026	mg/kg
	ANTHRACENE	ND		0.059	mg/kg
	FLUORANTHENE	0.0097	mg/kg	0.0014	mg/kg
	PYRENE	0.026	mg/kg	0.0047	mg/kg
	BENZO(A)ANTHRACENE	0.0180	mg/kg	0.00055	mg/kg
	CHRYSENE	0.074	mg/kg	0.0074	mg/kg
	BENZO(B)FLUORANTHENE	0.0017	mg/kg	0.00099	mg/kg
	BENZO(K)FLUORANTHENE	ND	mg/kg	0.00027	mg/kg
	BENZO(A)PYRENE	0.0025	mg/kg	0.00042	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00089	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00085	mg/kg
	INDENO(123CD)PYRENE	0.034	mg/kg	0.0036	mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894786
Date Received: 10/13/89
Date Reported: 10/16/89

Date Analyzed: 10/16/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
54871	PHS-001-34	PB	8,480	1,000 *	28

NOTE: REPLICATE ALIQUOTS OF THIS SAMPLE SPIKED WITH 50 mg/kg OF LEAD GAVE RESULTS OF APPROXIMATELY 500 mg/kg. THIS INDICATES THAT THE SAMPLE IS NON-HOMOGENOUS AND CONTAINS SOME PARTICLES WITH HIGH LEAD CONTENT.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894786
Date Extracted: 10/13/89 Date Received: 10/13/89
Date Analyzed: 10/16/89 Date Reported: 10/16/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,CA EXTRACT

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC	DET.LIM. mg/L
54871	PHS-001-34	PB	39.2	5 *	1.4

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894861
Date Collected: 09/28/89
Date Received: 10/18/89
Date Analyzed: 10/18/89
Date Reported: 10/18/89

LEAD(AA ASSAY EPA 7420),3010 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
55209	PB	70	1,000	29

DHS-001-3400
L per Tim Aoki - Telecon 10/24/89

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AND [illegible]

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Jim Brake
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM13
Survey # 00173-022
Project/Release #
UNION PACIFIC-SAC

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893100
Date Received: 07/10/89
Date Analyzed: 07/12/89
Date Reported: 07/26/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
CHROMIUM(AA ASSAY EPA 7190),3050 ACID DIGEST
ARSENIC IN WASTE BY AA-GF 7060)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
42532	TP-40-0.5B	PB	8.0	1,000	1.4
		CU	29.0	2,500	0.73
		AS	7.56	500	0.60
42535	TP-134-1.5	PB	9.2	1,000	1.4
		CU	22.8	2,500	0.73
		AS	7.74	500	0.60
42536	TP-74-0.5B	PB	8.6	1,000	1.4
		CU	23.4	2,500	0.73
		AS	9.88	500	0.60
42537	TP-20-1.5B	PB	9.6	1,000	1.4
		CU	82.6	2,500	0.73
		AS	9.16	500	0.60

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893100

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
42538	TP-7-1.5BI	PB	13	1,000	1.4
		CU	354	2,500	0.73
		AS	9.16	500	0.60
42539	TP-50-0.5B	PB	11	1,000	1.4
		CU	69.6	2,500	0.73
		AS	8.44	500	0.60
42540	TP-132-1.5	PB	13	1,000	1.4
		CU	28.4	2,500	0.73
		CR(TOTAL)	49.6	2,500	2.0
		AS	9.52	500	0.60
42541	TP-28-0.5B	PB	12	1,000	1.4
		CU	33.6	2,500	0.73
		AS	9.52	500	0.60
42542	TP-1-1.5BI	PB	8.4	1,000	1.4
		CU	17.8	2,500	0.73
		AS	10.1	500	0.60
42543	TP-54-1.5B	PB	9.4	1,000	1.4
		CU	25.0	2,500	0.73
		AS	8.62	500	0.60
42544	TP-15-1.5B	PB	11	1,000	1.4
		CU	27.0	2,500	0.73
		AS	8.44	500	0.60
42545	MW-6-2.5-3	PB	10	1,000	1.4
		CU	422	2,500	1.4
		AS	7.90	500	0.60
42546	SB-7-5.5-6	PB	9.6	1,000	1.4
		CU	45.8	2,500	0.73
		CR(TOTAL)	29.8	2,500	2.0
		AS	8.62	500	0.60

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893100

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
42547	SB-7-10.5-	PB	12	1,000	1.4
		CU	42.2	2,500	0.73
		CR(TOTAL)	35.6	2,500	2.0
		AS	8.80	500	0.60
42548	SB-3-3.0-3	PB	288	1,000	1.4
		CU	75.0	2,500	0.73
		AS	46.6	500	3.0

NALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893100
Date Received: 07/10/89
Date Reported: 07/26/89

Date Analyzed: 07/26/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
42533	TP-122A-0.5-1.0	SOIL	TRACE	AMOSITE	80	ORGANIC MATERIAL
					20	GYPSUM
42534	TP-120A-5.0-5.5	SOIL	TRACE	CHRYSOTILE	90	QUARTZ
					5	ORGANIC MATERIAL
					5	CLAY

TRACE=SAMPLE CONTAINS BETWEEN 0.1 TO 1% ASBESTOS

ANALYST:MIKE GRAY



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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
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Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM1
Survey # UPSACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893409
Date Collected: 01/13/88
Date Received: 07/27/89
Date Analyzed: 08/04/89
Date Reported: 08/08/89

ARSENIC IN WASTE BY AA-GF 7060)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44625	WT-4-0.25	AS	8.12	500	0.59
44626	WT-6-0.25	AS	15.6	500	0.57
44627	WT-7-0.25	AS	10.6	500	0.59
44628	SB003B6.0	AS	10.1	500	0.59

ANALYST:PRECY ROBINSON

THIS REPORT HAS BEEN REVIEWED
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893409
Date Collected: 01/13/88
Date Received: 07/27/89
Date Analyzed: 08/04/89
Date Reported: 08/08/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44625	WT-4-0.25	PB	18.8	1,000	1.4
		CU	27.6	2,500	0.39
44626	WT-6-0.25	PB	880	1,000	1.3
		CU	215	2,500	0.38
44627	WT-7-0.25	PB	400	1,000	1.4
		CU	84.0	2,500	0.40
44628	SB003B6.0	PB	16.9	1,000	1.4
		CU	128	2,500	0.39

ANALYST:NANCY S.TESCHE

ACCULAB
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October 19, 1989

Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826
ATTN: Kevin Brown

REF: ACCULAB Job Numbers 893789 and 893742

Dear Kevin,

On the above referenced jobs, ACCULAB neglected to analyze some of the samples for 8015-Gas and 8310. A complete listing of these samples is presented below:

Lab Job Number	Lab Number	Sample Number	Analysis not Performed
893789	47746	P150X00.0	8015-Gas
893789	47753	P152X01.5	8015-Gas
893789	47755	MW14X06.0	8015-Gas
893789	47756	MW14X11.0	8015-Gas
893789	47758	P151X06.0	8015-Gas
893742	47357	P237X02.0	8310

Please call me at 707 763-8245 if you have any questions concerning this information. The problem in our log-in system that allowed these errors to occur has been corrected.

Sincerely,
ACCULAB Environmental Services

George E. Dunstan
Project Manager

GED/haa

ACCULAB
ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM1
Survey # UPSACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380
Date Collected: 07/20/89
Date Received: 07/25/89
Date Analyzed: 07/28/89
Date Reported: 08/08/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
44402	B016B05.5	TPH	1,080	6
44403	B016B10.0	TPH	ND	6
44404	B016B15.0	TPH	ND	6
44405	B016B20.0	TPH	ND	6

ANALYST:JAN TOISTER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380
Date Collected: 07/20/89
Date Received: 07/25/89
Date Analyzed: 07/28/89
Date Reported: 08/08/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44395	P186X06.5	AS	7.86	500	0.60
		CU	17.4	2,500	0.59
		PB	7.6	1,000	1.4
44396	P187X06.5	AS	7.79	500	0.59
		CU	20.8	2,500	0.59
		PB	11	1,000	1.4
44398	P202X10.5	AS	7.32	500	0.58
		CU	19.8	2,500	0.58
		PB	11	1,000	1.4
44399	P202X09.5	AS	7.11	500	0.59
		CU	20.2	2,500	0.59
		PB	10	1,000	1.4
44400	P188X00.0	AS	12.1	500	0.60
		CU	134	2,500	0.59
		PB	291	1,000	1.4
44401	P288X07.0	AS	7.32	500	0.60
		CU	18.7	2,500	0.59
		PB	8.9	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44402	B016B05.5	AS	9.01	500	0.58
		CU	3,890	2,500 *	5.8
		PB	115	1,000	1.4
44403	B016B10.0	AS	7.45	500	0.59
		CU	21.1	2,500	0.59
		PB	9.9	1,000	1.4
44404	B016B15.0	AS	8.24	500	0.59
		CU	21.8	2,500	0.58
		PB	11	1,000	1.4
44405	B016B20.0	AS	7.50	500	0.60
		CU	31.6	2,500	0.59
		PB	9.3	1,000	1.4
44406	B016X00.0	AS	10.0	500	0.59
		CU	308	2,500	0.59
		PB	593	1,000	1.4

ANALYST:PRECY ROBINSON

ACCULAB
ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380
Date Collected: 07/20/89 Date Received: 07/25/89
Date Analyzed: 08/03/89 Date Reported: 08/08/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	44402	DET.	44403	DET.
	SMP#	B016B05.5	LIM.	B016B10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
'ARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		52	2.5	6.3	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380

COMPOUNDS:	LAB#	44402	DET.	44403	DET.
	SMP#	B016B05.5	LIM.	B016B10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		84	100.0	114	100.0
TOLUENE-D8		101	100.0	98	100.0
4-BROMOFLUOROBENZENE		100	100.0	96	100.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380

COMPOUNDS:	LAB#	44404	DET.	44405	DET.
	SMP#	B016B15.0	LIM.	B016B20.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		6.8	2.5	15	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		105	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380

COMPOUNDS:	LAB#	44404	DET.	44405	DET.
	SMP#	B016B15.0	LIM.	B016B20.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		95	100.0	73	100.0
TOLUENE-D8		96	100.0	123	100.0
4-BROMOFLUOROBENZENE		93	100.0	132	100.0

ND = NO PEAKS DETECTED

ANALYST:CAROLYN STUDENY

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893380
Date Collected: 07/20/89 Date Received: 07/25/89
Date Analyzed: 08/08/89 Date Reported: 08/08/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
44397	P202X05.0	SOIL	NONE DETECTED		60	QUARTZ
					35	CLAY
					5	IRON OXIDE

ANALYST:OLIVIA A.ALEJANDRO

Olivia A. Alejandro

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L A B O R A T O R Y R E S U L T S

Date Collected: 07/20/89
Date Extracted: 07/28/89
Date Analyzed: 07/28/89

Laboratory Job No.: 893380
Date Received: 07/25/89
Date Reported: 08/08/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
44402	B016B05.5 GASOLINE	ND	1.0 mg/kg
44403	B016B10.0 GASOLINE	ND	1.0 mg/kg
4404	B016B15.0 GASOLINE	ND	1.0 mg/kg
44405	B016B20.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

PHASE 2 ANALYTICAL REPORTS

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Telephone: (707) 763-5245 FAX: (707) 763-4065

Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM1
Survey # UPSACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/02/89
Date Reported: 08/18/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44764	P191X02.0	TPH	800		240
44765	P191X03.0	TPH	ND		24
44775	B018B10.0	TPH	ND		24
44776	B018B15.0	TPH	ND		24
44777	B018B20.0	TPH	ND		24
44778	B019B10.0	TPH	ND		24
44779	B019B15.0	TPH	ND		24
44780	B020Y10.0	TPH	ND		24
44789	B020X10.0	TPH	ND		24

ANALYST:JAN TOISTER

RECEIVED
AUG 21 1989
DAMES & MOORE

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415
Date Collected: 07/24/89
Date Analyzed: 08/04/89
Date Received: 07/27/89
Date Reported: 08/18/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44753	P199X09.0	PB	11	1,000	1.4
		CU	20.8	2,500	0.39
44754	P200X09.0	PB	10	1,000	1.4
		CU	24.1	2,500	0.39
		SB	ND	500	9.8
44755	P201X09.0	PB	12	1,000	1.4
		CU	24.3	2,500	0.40
44756	P193X01.5	PB	17.7	1,000	1.4
		CU	24.8	2,500	0.39
44757	P196X02.5	PB	10	1,000	1.4
		CU	22.2	2,500	0.40
44758	P198X09.0	PB	9.2	1,000	1.4
		CU	14.9	2,500	0.39
44759	B018X00.0	PB	6.4	1,000	1.3
		CU	19.5	2,500	0.39
44760	B019X00.0	PB	9.4	1,000	1.4
		CU	16.2	2,500	0.39

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44761	P18PX05.0	PB	9.8	1,000	1.4
		CU	21.3	2,500	0.40
		SB	ND	500	10.0
44762	P190X05.0	PB	11	1,000	1.4
		CU	20.2	2,500	0.40
		SB	ND	500	10.0
44763	B020X00.0	PB	56.3	1,000	1.3
		CU	49.4	2,500	0.38
44764	P191X02.0	PB	88.3	1,000	1.4
		CU	38.9	2,500	0.39
		SB	ND	500	9.9
44765	P191X03.0	PB	32.4	1,000	1.4
		CU	24.9	2,500	0.39
		SB	ND	500	9.8
44766	P192X02.5	PB	9.4	1,000	1.3
		CU	21.1	2,500	0.38
44767	P192X05.0	PB	13	1,000	1.4
		CU	24.8	2,500	0.40
44768	P192X07.0	PB	11	1,000	1.4
		CU	30.9	2,500	0.39
44769	P192X08.5	PB	12	1,000	1.4
		CU	24.3	2,500	0.39
44771	P191FD4.5	PB	11	1,000	1.4
		CU	25.5	2,500	0.39
44772	P191Y04.5	PB	9.3	1,000	1.4
		CU	23.9	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44773	P191MD4.5	PB	11	1,000	1.4
		CU	27.5	2,500	0.39
44774	B018B03.0	PB	904	1,000	1.4
		CU	93.5	2,500	0.39
44775	B018B10.0	PB	14.1	1,000	1.4
		CU	24.1	2,500	0.40
44776	B018B15.0	PB	3.9	1 000	1.4
		CU	14.0	2,500	0.39
44777	B018B20.0	PB	7.5	1,000	1.4
		CU	15.7	2,500	0.40
44778	B019B10.0	PB	13	1 000	1.4
		CU	25.7	2,500	0.40
44779	B019B15.0	PB	11	1,000	1.4
		CU	24.0	2,500	0.40
44780	B020Y10.0	PB	9.6	1,000	1.4
		CU	20.6	2,500	0.40
44790	B20FD10.0	PB	7.9	1,000	1.4
		CU	14.7	2,500	0.40

ANALYST:NANCY S.TESCHE

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/04/89
Date Reported: 08/18/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44753	P199X09.0	AS	9.08	500	0.60
44754	P200X09.0	AS	9.08	500	0.60
44755	P201X09.0	AS	9.48	500	0.60
44756	P193X01.5	AS	8.48	500	0.60
44757	P196X02.5	AS	17.3	500	0.60
44758	P198X09.0	AS	9.28	500	0.60
44759	B018X00.0	AS	5.6	500	0.60
44760	B019X00.0	AS	4.5	500	0.60
44761	P18PX05.0	AS	13.7	500	0.60
44762	P190X05.0	AS	8.68	500	0.60
44763	B020X00.0	AS	8.68	500	0.60
44764	P191X02.0	AS	8.68	500	0.60
44765	P191X03.0	AS	8.08	500	0.60

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44766	P192X02.5	AS	12.2	500	0.60
44767	P192X05.0	AS	9.88	500	0.60
44768	P192X07.0	AS	9.48	500	0.60
44769	P192X08.5	AS	8.48	500	0.60
44770	P191X04.5	AS	8.68	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
44771	P191FD4.5	AS	7.70	500	0.60
44772	P191Y04.5	AS	7.50	500	0.60
44773	P191MD4.5	AS	8.68	500	0.60
44774	B018B03.0	AS	504	500 *	30
44775	B018B10.0	AS	8.68	500	0.60
44776	B018B15.0	AS	11.7	500	0.60
44777	B018B20.0	AS	9.08	500	0.60
44778	B019B10.0	AS	15.4	500	0.60
44779	B019B15.0	AS	7.50	500	0.60
44780	B020Y10.0	AS	9.08	500	0.60
44789	B020X10.0	AS	9.28	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44790	B20FD10.0	AS	3.1	500	0.60

ANALYST:PRECY ROBINSON

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/02/89
Date Reported: 08/18/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.
44770	P191X04.5	SOIL			CA TTLC	
		AG	ND		500	0.20 mg/kg
		BA	146	mg/kg	10,000	0.20 mg/kg
		BE	0.31	mg/kg	75	0.20 mg/kg
		CD	3.00	mg/kg	100	0.10 mg/kg
		CO	13.7	mg/kg	8,000	0.40 mg/kg
		CR	40.2	mg/kg	2,500	0.40 mg/kg
		CU	26.5	mg/kg	2,500	0.20 mg/kg
		MO	ND		3,500	0.40 mg/kg
		NI	39.2	mg/kg	2,000	1.0 mg/kg
		PB	1.3	mg/kg	1,000	1.0 mg/kg
		SB	ND		500	10 mg/kg
		TL	ND		700	4.0 mg/kg
		V	50.7	mg/kg	2,400	0.40 mg/kg
		ZN	47.4	mg/kg	5,000	0.20 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
44789	B020X10.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	140	mg/kg	10,000	0.20	mg/kg
	BE	0.33	mg/kg	75	0.20	mg/kg
	CD	3.00	mg/kg	100	0.10	mg/kg
	CO	11.7	mg/kg	8,000	0.40	mg/kg
	CR	40.5	mg/kg	2,500	0.40	mg/kg
	CU	22.3	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	37.4	mg/kg	2,000	1.0	mg/kg
	PB	ND		1,000	1.0	mg/kg
	SB	ND		500	10	mg/kg
	TL	ND		700	4.0	mg/kg
	V	51.6	mg/kg	2,400	0.40	mg/kg
	ZN	47.2	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415
Date Collected: 07/24/89 Date Received: 07/27/89
Date Analyzed: 08/09/89 Date Reported: 08/18/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	44764	DET.	44765	DET.
	SMP#	P191X02.0	LIM.	P191X03.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
ARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44764	DET.	44765	DET.
	SMP#	P191X02.0	LIM.	P191X03.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		89%		88%	
TOLUENE-D8		106%		102%	
4-BROMOFLUOROBENZENE		28%		99%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44775	DET.	44776	DET.
	SMP#	B018B10.0	LIM.	B018B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	3.6	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 806024, Petaluma, CA 94975-6024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44775	DET.	44776	DET.
	SMP#	B018B10.0	LIM.	B018B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		101%		106%	
TOLUENE-D8		114%		99%	
4-BROMOFLUOROBENZENE		94%		93%	

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ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44777	DET.	44778	DET.
	SMP#	B018B20.0	LIM.	B019B10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		8.9	2.5	13	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44777	DET.	44778	DET.
	SMP#	B018B20.0	LIM.	B019B10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		108%		102%	
TOLUENE-D8		106%		100%	
4-BROMOFLUOROBENZENE		96%		89%	

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44779	DET.	44780	DET.
	SMP#	B019B15.0	LIM.	B020Y10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44779	DET.	44780	DET.
	SMP#	B019B15.0	LIM.	B020Y10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		99%		105%	
TOLUENE-D8		104%		107%	
4-BROMOFLUOROBENZENE		97%		1-7%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44789	DET.
	SMP#	B020X10.0	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415

COMPOUNDS:	LAB#	44789	DET.
	SMP#	B020X10.0	LIM.
PURGEABLES		ug/kg	
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		86%	
TOLUENE-D8		105%	
4-BROMOFLUOROBENZENE		101%	

ND: NOT DETECTED.

ANALYST:CAROLYN STUDENY

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893415
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/10/89
Date Reported: 08/18/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
44774	B018B03.0	SOIL	NONE	DETECTED	70	QUARTZ
					20	CLAY
					5	MICA
					5	TAR

ANALYST:MIKE GRAY

for Olivia G. Alejandro

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO.
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/02/89
Date Reported: 08/18/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44783	B017B08.5	TPH	28,300		2,400
44784	B017B10.0	TPH	ND		24
44785	B017B15.0	TPH	ND		24
44786	B017B20.0	TPH	ND		24

ANALYST:JAN TOISTER

RECEIVED
AUG 21 1989
DAMES & MOORE

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/04/89
Date Reported: 08/18/89

ARSENIC IN WASTE BY AA-GF 7060)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44781	B017B01.0	AS	5.8	500	0.59
44782	B017B05.5	AS	4.9	500	0.60
44783	B017B08.5	AS	5.2	500	0.59
44784	B017B10.0	AS	8.7	500	0.59
44785	B017B15.0	AS	8.4	500	0.59
44786	B017B20.0	AS	9.8	500	0.59
44787	P197X03.0	AS	7.4	500	0.59
44788	P197X05.0	AS	7.3	500	0.59

ANALYST:PRECY ROBINSON

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/04/89
Date Reported: 08/18/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
44781	B017B01.0	PB	66.1	1,000	1.4
		CU	22.8	2,500	0.40
44782	B017B05.5	PB	37.1	1,000	1.4
		CU	45.3	2,500	0.40
44783	B017B08.5	PB	49.9	1,000	1.4
		CU	30.7	2,500	0.40
44784	B017B10.0	PB	12	1,000	1.4
		CU	19.6	2,500	0.39
44785	B017B15.0	PB	5.7	1,000	1.4
		CU	12.4	2,500	0.39
44786	B017B20.0	PB	7.9	1,000	1.4
		CU	15.6	2,500	0.40
44787	P197X03.0	PB	9.4	1,000	1.4
		CU	19.4	2,500	0.39
44788	P197X05.0	PB	9.9	1,000	1.4
		CU	22.2	2,500	0.40

ANALYST:NANCY S.TESCHE

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419
Date Collected: 07/24/89
Date Received: 07/27/89
Date Analyzed: 08/10/89
Date Reported: 08/18/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	44783	DET.	44784	DET.
	SMP#	B017B08.5	LIM.	B017B10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		140	2.5	8.6	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419

COMPOUNDS:	LAB#	44783	DET.	44784	DET.
	SMP#	B017B08.5	LIM.	B017B10.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		180	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		105%		75%	
TOLUENE-D8		88%		102%	
4-BROMOFLUOROBENZENE		64%		74%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419

COMPOUNDS:	LAB#	44785	DET.	44786	DET.
	SMP#	B017B15.0	LIM.	B017B20.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419

COMPOUNDS:	LAB#	44785	DET.	44786	DET.
	SMP#	B017B15.0	LIM.	B017B20.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		76%		83%	
TOLUENE-D8		104%		109%	
4-BROMOFLUOROBENZENE		71%		110%	

ND: NOT DETECTED.

ANALYST:CAROLYN STUDENY

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419
Date Collected: 07/24/89 Date Received: 07/27/89
Date Analyzed: 08/10/89 Date Reported: 08/18/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
44781	B017B01.0	SOIL	NONE DETECTED		85	QUARTZ
					5	CLAY
					5	TAR
					5	BRICK
44782	B017B05.5	SOIL	NONE DETECTED		80	QUARTZ
					15	TAR
					5	CLAY
44783	B017B08.5	SOIL	NONE DETECTED		60	QUARTZ
					35	CLAY
					5	TAR

ANALYST:MIKE GRAY
for Olivia D. Alejandro

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L A B O R A T O R Y R E S U L T S

Date Collected: 07/24/89
Date Extracted: 07/28/89
Date Analyzed: 07/28/89

Laboratory Job No.: 893419
Date Received: 07/27/89
Date Reported: 08/18/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
44783 B017B08.5 GASOLINE	1.6 mg/kg	1.0 mg/kg
44784 B017B10.0 GASOLINE	ND	1.0 mg/kg
44785 B017B15.0 GASOLINE	ND	1.0 mg/kg
44786 B017B20.0 GASOLINE	ND	1.0 mg/kg
44787 P197X03.0 GASOLINE	ND	1.0 mg/kg
44788 P197X05.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Date Collected: 07/24/89
Date Extracted: 08/08/89
Date Analyzed: 08/16/89

Laboratory Job No.: 893419
Date Received: 07/27/89
Date Reported: 08/18/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
44783 B017B08.5		
NAPHTHALENE	ND	17.0 mg/kg
ACENAPHTHYLENE	ND	27.0 mg/kg
ACENAPHTHENE	ND	39.0 mg/kg
FLUORENE	ND	4.4 mg/kg
INDENO(123CD)PYRENE	ND	3.8 mg/kg
44784 B017B10.0		
NAPHTHALENE	ND	0.067 mg/kg
ACENAPHTHYLENE	ND	0.11 mg/kg
ACENAPHTHENE	ND	0.15 mg/kg
FLUORENE	ND	0.018 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg
44785 B017B15.0		
NAPHTHALENE	ND	0.067 mg/kg
ACENAPHTHYLENE	ND	0.11 mg/kg
ACENAPHTHENE	ND	0.15 mg/kg
FLUORENE	ND	0.018 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
44783	B017B08.5				
	PHENANTHRENE	ND		1.4	mg/kg
	ANTHRACENE	2.18	mg/kg	1.7	mg/kg
	FLUORANTHENE	ND		1.7	mg/kg
	PYRENE	1.0	mg/kg	0.14	mg/kg
	BENZO(A)ANTHRACENE	0.39	mg/kg	0.057	mg/kg
	CHRYSENE	0.79	mg/kg	0.25	mg/kg
	BENZO(B)FLUORANTHENE	0.18	mg/kg	0.087	mg/kg
	BENZO(K)FLUORANTHENE	0.063	mg/kg	0.0080	mg/kg
	BENZO(A)PYRENE	0.057	mg/kg	0.0094	mg/kg
	DIBENZ(AH)ANTHRACENE	0.12	mg/kg	0.026	mg/kg
	BENZO(GHI)PERYLENE	2.49	mg/kg	0.23	mg/kg
44784	B017B10.0				
	PHENANTHRENE	0.0092	mg/kg	0.0054	mg/kg
	ANTHRACENE	ND		0.0066	mg/kg
	FLUORANTHENE	ND		0.0067	mg/kg
	PYRENE	0.0013	mg/kg	0.00056	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00023	mg/kg
	CHRYSENE	ND		0.0010	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00035	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.000032	mg/kg
	BENZO(A)PYRENE	ND		0.000038	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00010	mg/kg
	BENZO(GHI)PERYLENE	ND		0.00093	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893419

LABNO	SMPLNO-ID	RESULTS	DET.LIM	
44785	B017B15.0			
	PHENANTHRENE	ND	0.0054	mg/kg
	ANTHRACENE	ND	0.0066	mg/kg
	FLUORANTHENE	ND	0.0067	mg/kg
	PYRENE	ND	0.00056	mg/kg
	BENZO(A)ANTHRACENE	ND	0.00023	mg/kg
	CHRYSENE	ND	0.0010	mg/kg
	BENZO(B)FLUORANTHENE	ND	0.00035	mg/kg
	BENZO(K)FLUORANTHENE	ND	0.000032	mg/kg
	BENZO(A)PYRENE	ND	0.000038	mg/kg
	DIBENZ(AH)ANTHRACENE	ND	0.00010	mg/kg
	BENZO(GHI)PERYLENE	ND	0.00093	mg/kg

NOTE: TWO SETS OF DATA APPEAR FOR EACH SAMPLE BECAUSE TWO DETECTORS WERE USED.

ANALYST:TIM AOKI

PHASE 2

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DAMES & MOORE

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451
Date Collected: 07/27/89
Date Received: 07/28/89
Date Analyzed: 08/03/89
Date Reported: 09/07/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45053	B019B20.0	TPH	ND	24
45055	B020B15.0	TPH	ND	24
45056	B020B20.0	TPH	ND	24
45058	B009B01.5	TPH	3,210	120
45059	B009B04.5	TPH	160	24
45060	B009B10.0	TPH	ND	24
45061	B009B15.0	TPH	ND	24
45063	B010B03.0	TPH	80	24
45064	B009B06.0	TPH	ND	24
45065	B010B06.0	TPH	ND	24
45066	B010B10.0	TPH	ND	24

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45067	B010B15.0	TPH	ND	24
45069	P176X03.0	TPH	ND	24
45070	P176X04.5	TPH	64	24
45071	P176X05.5	TPH	94	24
45072	P176X08.8	TPH	160	24

ANALYST:JAN TOISTER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451
Date Collected: 07/27/89 Date Received: 07/28/89
Date Analyzed: 08/07/89 Date Reported: 09/07/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45053	B019B20.0	PB	10	1,000	1.5
		CU	22.3	2,500	0.42
45054	B020B06.0	PB	2,150	1,000 *	15
		CU	300	2,500	0.41
45055	B020B15.0	PB	11	1,000	1.5
		CU	23.5	2,500	0.42
45056	B020B20.0	PB	11	1,000	1.4
		CU	24.1	2,500	0.41
45057	B009X00.0	PB	441	1,000	1.5
		CU	348	2,500	0.42
45058	B009B01.5	PB	177	1,000	1.4
		CU	136	2,500	0.41
45059	B009B04.5	PB	17.3	1,000	1.5
		CU	34.9	2,500	0.42
45060	B009B10.0	PB	15.3	1,000	1.4
		CU	42.4	2,500	0.41
45061	B009B15.0	PB	15.8	1,000	1.5
		CU	30.2	2,500	0.42

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45062	B010X00.0	PB	225	1,000	1.5
		CU	174	2,500	0.42
45063	B010B03.0	PB	14	1,000	1.5
		CU	24.0	2,500	0.42
45064	B009B06.0	PB	15.1	1,000	1.5
		CU	32.3	2,500	0.42
45065	B010B06.0	PB	16.2	1,000	1.5
		CU	31.3	2,500	0.42
45066	B010B10.0	PB	15.5	1,000	1.5
		CU	37.1	2,500	0.42
45067	B010B15.0	PB	15.5	1,000	1.5
		CU	32.3	2,500	0.42
45068	P175X08.0	PB	14	1,000	1.4
		CU	32.2	2,500	0.41
45069	P176X03.0	PB	25.0	1,000	1.4
		CU	17.8	2,500	0.41
45070	P176X04.5	PB	14	1,000	1.4
		CU	24.4	2,500	0.41
45071	P176X05.5	PB	16.9	1,000	1.4
		CU	26.1	2,500	0.41
45072	P176X08.8	PB	14	1,000	1.4
		CU	21.8	2,500	0.41
45073	P177X09.0	PB	11	1,000	1.5
		CU	23.4	2,500	0.42

ANALYST:NANCY S.TESCHE

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 688024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451
Date Collected: 07/27/89 Date Received: 07/28/89
Date Analyzed: 08/04/89 Date Reported: 09/07/89

ARSENIC IN WASTE BY AA-GF 7060)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45053	B019B20.0	AS	8.5	500	0.60
45054	B020B06.0	AS	15.7	500	0.60
45055	B020B15.0	AS	8.7	500	0.60
45056	B020B20.0	AS	7.9	500	0.60
45057	B009X00.0	AS	12.0	500	0.60
45058	B009B01.5	AS	8.5	500	0.60
45059	B009B04.5	AS	8.5	500	0.60
45060	B009B10.0	AS	8.1	500	0.60
45061	B009B15.0	AS	7.9	500	0.60
45062	B010X00.0	AS	7.3	500	0.60
45063	B010B03.0	AS	8.3	500	0.60
45064	B009B06.0	AS	7.9	500	0.60
45065	B010B06.0	AS	7.9	500	0.60
45066	B010B10.0	AS	7.9	500	0.60

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45067	B010B15.0	AS	8.1	500	0.60
45068	P175X08.0	AS	7.9	500	0.60
45069	P176X03.0	AS	6.7	500	0.60
45070	P176X04.5	AS	7.5	500	0.60
45071	P176X05.5	AS	7.9	500	0.60
45072	P176X08.8	AS	8.1	500	0.60
45073	P177X09.0	AS	7.7	500	0.60

ANALYST:PRECY ROBINSON

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451
Date Collected: 07/27/89
Date Received: 07/28/89
Date Analyzed: 08/10/89
Date Reported: 09/07/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	45053	DET.	45055	DET.
	SMP#	B019B20.0	LIM.	B020B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
ARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

COMPOUNDS:	LAB#	45053	DET.	45055	DET.
	SMP#	B019B20.0	LIM.	B020B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		150	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
.INYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		119%		93%	
TOLUENE-D8		98%		98%	
4-BROMOFLUOROBENZENE		101%		95%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

COMPOUNDS:	LAB#	45056	DET.
	SMP#	B020B20.0	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
CARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
HLOROFORM		ND	2.5
HLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		3.3	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

COMPOUNDS:	LAB#	45056	DET.
	SMP#	B020B20.0	LIM.
PURGEABLES		ug/kg	
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
,2-DICHLOROETHANE-D4		87%	
TOLUENE-D8		106%	
4-BROMOFLUOROBENZENE		106%	

ND: NOT DETECTED.

ANALYST:CAROLYN STUDENY

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451
Date Collected: 07/27/89 Date Received: 07/28/89
Date Analyzed: 08/08/89 Date Reported: 09/07/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
45054	B020B06.0	WHITE BULK	NONE DETECTED		50	QUARTZ
					40	ANTAPULGITE CLAY
					10	OPAQUE PART.
		BLACK SOIL	NONE DETECTED		75	QUARTZ
					20	CARBON PART.
					5	HEMATITE

ANALYST:OLIVIA A.ALEJANDRO

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L A B O R A T O R Y R E S U L T S

Date Collected: 07/27/89
Date Extracted: 08/02/89
Date Analyzed: 08/02/89

Laboratory Job No.: 893451
Date Received: 07/28/89
Date Reported: 09/07/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45053 B019B20.0 GASOLINE	ND	1.0 mg/kg
45055 B020B15.0 GASOLINE	ND	1.0 mg/kg
45056 B020B20.0 GASOLINE	ND	1.0 mg/kg
45058 B009B01.5 GASOLINE	260 mg/kg	2.7 mg/kg
45059 B009B04.5 GASOLINE	ND	1.0 mg/kg
45060 B009B10.0 GASOLINE	ND	1.0 mg/kg
45061 B009B15.0 GASOLINE	ND	1.0 mg/kg
45063 B010B03.0 GASOLINE	6.1 mg/kg	1.0 mg/kg
45064 B009B06.0 GASOLINE	ND	1.0 mg/kg
45065 B010B06.0 GASOLINE	12.0 mg/kg	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45066	B010B10.0		
	GASOLINE	ND	1.0 mg/kg
45067	B010B15.0		
	GASOLINE	ND	1.0 mg/kg
45069	P176X03.0		
	GASOLINE	ND	1.0 mg/kg
45070	P176X04.5		
	GASOLINE	ND	1.0 mg/kg
45071	P176X05.5		
	GASOLINE	ND	1.0 mg/kg
45072	P176X08.8		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 07/27/89
Date Extracted: 08/09/89
Date Analyzed: 08/19/89

Laboratory Job No.: 893451
Date Received: 07/28/89
Date Reported: 09/07/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45058 B009B01.5				
PHENANTHRENE	27.0	mg/kg	0.96	mg/kg
ANTHRACENE	ND		1.20	mg/kg
FLUORANTHENE	53.0	mg/kg	1.20	mg/kg
PYRENE	1.4	mg/kg	0.10	mg/kg
BENZO(A)ANTHRACENE	0.59	mg/kg	0.04	mg/kg
CHRYSENE	ND		0.019	mg/kg
BENZO(B)FLUORANTHENE	ND		0.064	mg/kg
BENZO(K)FLUORANTHENE	ND		0.0056	mg/kg
BENZO(A)PYRENE	ND		0.0068	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.020	mg/kg
BENZO(GHI)PERYLENE	ND		0.17	mg/kg
45063 B010B03.0				
PHENANTHRENE	0.0052	mg/kg	0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	ND		0.0059	mg/kg
PYRENE	.0069	mg/kg	0.00050	mg/kg
BENZO(A)ANTHRACENE	0.0030	mg/kg	0.00020	mg/kg
CHRYSENE	0.017	mg/kg	0.00096	mg/kg
BENZO(B)FLUORANTHENE	0.0014	mg/kg	0.00031	mg/kg
BENZO(K)FLUORANTHENE	ND		0.000029	mg/kg
BENZO(A)PYRENE	0.00013	mg/kg	0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.000098	mg/kg
BENZO(GHI)PERYLENE	0.0037	mg/kg	0.00087	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45072 P176X08.8				
PHENANTHRENE	2.7	mg/kg	1.2	mg/kg
ANTHRACENE	ND		1.5	mg/kg
FLUORANTHENE	ND		1.5	mg/kg
PYRENE	0.47	mg/kg	0.13	mg/kg
BENZO(A)ANTHRACENE	0.079	mg/kg	0.051	mg/kg
CHRYSENE	0.48	mg/kg	0.24	mg/kg
BENZO(B)FLUORANTHENE	0.30	mg/kg	0.078	mg/kg
BENZO(K)FLUORANTHENE	ND		0.0071	mg/kg
BENZO(A)PYRENE	0.013	mg/kg	0.0083	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.024	mg/kg
BENZO(GHI)PERYLENE	0.62	mg/kg	0.22	mg/kg
45058 B009B01.5				
NAPHTHALENE	ND		11.0	mg/kg
ACENAPHTHYLENE	ND		18.0	mg/kg
ACENAPHTHENE	ND		26.0	mg/kg
FLUORENE	7.2	mg/kg	3.0	mg/kg
INDENO(123CD)PYRENE	ND		3.0	mg/kg
45063 B010B03.0				
NAPHTHALENE	ND		0.057	mg/kg
ACENAPHTHYLENE	ND		0.093	mg/kg
ACENAPHTHENE	ND		0.13	mg/kg
FLUORENE	ND		0.015	mg/kg
INDENO(123CD)PYRENE	ND		0.015	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893451

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45072	P176X08.8		
	NAPHTHALENE	ND	14.0 mg/kg
	ACENAPHTHYLENE	ND	23.0 mg/kg
	ACENAPHTHENE	ND	33.0 mg/kg
	FLUORENE	ND	3.8 mg/kg
	INDENO(123CD)PYRENE	ND	3.8 mg/kg

NOTE: PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

NALYST: TIM AOKI

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893485
Date Received: 07/31/89
Date Reported: 08/09/89

Date Analyzed: 08/04/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45392	P197X03.0	TPH	35	24
45393	P197X05.0	TPH	ND	24
45394	P175X03.0	TPH	ND	24
45395	P192X02.5	TPH	95	24
45396	P192X05.0	TPH	ND	24
45397	P192X07.0	TPH	ND	24
45398	P192X08.5	TPH	ND	24

ANALYST:JAN TOISTER

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THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893485
Date Received: 07/31/89
Date Reported: 08/09/89

Date Analyzed: 08/08/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
45399	B020X00.0	BROWN SOIL	NONE DETECTED		60	QUARTZ
					40	CLAY

ANALYST:OLIVIA A.ALEJANDRO

Olivia A. Alejandro

PHASE 2

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/10/89
Date Reported: 09/07/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45421	B012B00.0	TPH	ND	6
45422	B012B06.0	TPH	860.0	6
45423	B012B10.0	TPH	3,090	30
45424	B012X15.0	TPH	166	6
45426	B012Y15.0	TPH	ND	6
45427	B012B20.0	TPH	356.0	6
45428	B011B00.0	TPH	ND	6
45429	B011B04.5	TPH	ND	6
45430	B011B06.0	TPH	ND	6
45431	B011B10.0	TPH	ND	6
45432	B011B15.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

EB.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45433	B011B25.0	TPH	ND	6

ANALYST:JAN TOISTER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489
Date Collected: 07/28/89
Date Analyzed: 08/08/89
Date Received: 07/31/89
Date Reported: 09/07/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
45424	B012X15.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	151	mg/kg	10,000	0.20	mg/kg
	BE	0.39	mg/kg	75	0.20	mg/kg
	CD	1.80	mg/kg	100	0.099	mg/kg
	CO	11.1	mg/kg	8,000	0.40	mg/kg
	CR	27.8	mg/kg	2,500	0.40	mg/kg
	CU	18.2	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	34.8	mg/kg	2,000	0.99	mg/kg
	PB	6.8	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	24.5	mg/kg	2,400	0.40	mg/kg
	ZN	39.0	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/07/89
Date Reported: 09/07/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45421	B012B00.0	PB	19.4	1,000	1.4
		CU	16.8	2,500	0.41
45422	B012B06.0	PB	274	1,000	1.5
		CU	348	2,500	0.42
45423	B012B10.0	PB	74.9	1,000	1.5
		CU	95.8	2,500	0.42
45425	B12FD15.0	PB	19.5	1,000	1.5
		CU	21.7	2,500	0.42
45426	B012Y15.0	PB	16.0	1,000	1.4
		CU	23.1	2,500	0.41
45427	B012B20.0	PB	10.0	1,000	1.4
		CU	16.8	2,500	0.41
45428	B011B00.0	PB	10	1,000	1.5
		CU	15.0	2,500	0.42
45429	B011B04.5	PB	12	1,000	1.4
		CU	24.3	2,500	0.41
45430	B011B06.0	PB	14	1,000	1.5
		CU	24.3	2,500	0.42

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45431	B011B10.0	PB	15	1,000	1.5
		CU	27.4	2,500	0.42
45432	B011B15.0	PB	19.9	1,000	1.5
		CU	21.0	2,500	0.42
45433	B011B25.0	PB	10	1,000	1.5
		CU	26.3	2,500	0.42

NALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/09/89
Date Reported: 09/07/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45421	B012B00.0	AS	3.6	500	0.60
45422	B012B06.0	AS	17.4	500	0.60
45423	B012B10.0	AS	11.1	500	0.60
45424	B012X15.0	AS	6.72	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
45425	B12FD15.0	AS	6.50	500	0.60
45426	B012Y15.0	AS	6.10	500	0.60
45427	B012B20.0	AS	6.72	500	0.60
45428	B011B00.0	AS	4.9	500	0.60
45429	B011B04.5	AS	5.9	500	0.60
45430	B011B06.0	AS	5.5	500	0.60
45431	B011B10.0	AS	6.30	500	0.60
45432	B011B15.0	AS	5.3	500	0.60

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45433	B011B25.0	AS	6.10	500	0.60

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/11/89
Date Reported: 09/07/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	45421	DET.	45422	DET.
	SMP#	B012B00.0	LIM.	B012B06.0	LIM.
	dil.	1		5	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	12.5
BROMODICHLOROMETHANE		ND	2.5	ND	12.5
BROMOFORM		ND	2.5	ND	12.5
ROMOMETHANE		ND	2.5	ND	12.5
CARBON TETRACHLORIDE		ND	2.5	ND	12.5
CHLOROBENZENE		ND	2.5	ND	12.5
CHLOROETHANE		ND	2.5	ND	12.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	25.0
CHLOROFORM		ND	2.5	ND	12.5
CHLOROMETHANE		ND	2.5	ND	12.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	12.5
1,2-DICHLOROBENZENE		ND	2.5	ND	12.5
1,3-DICHLOROBENZENE		ND	2.5	ND	12.5
1,4-DICHLOROBENZENE		ND	2.5	ND	12.5
1,1-DICHLOROETHANE		ND	2.5	ND	12.5
1,2-DICHLOROETHANE		ND	2.5	ND	12.5
1,1-DICHLOROETHENE		ND	2.5	ND	12.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	12.5
1,2-DICHLOROPROPANE		ND	2.5	ND	12.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	12.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	12.5
ETHYL BENZENE		ND	2.5	ND	12.5
METHYLENE CHLORIDE		ND	2.5	ND	12.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	12.5
TETRACHLOROETHENE		ND	2.5	ND	12.5
TOLUENE		3.3	2.5	ND	12.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	12.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	12.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45421	DET.	45422	DET.
	SMP#	B012B00.0	LIM.	B012B06.0	LIM.
	dil.	1		5	
PURGEABLES		ug/kg		ug/kg	
TRICHLOROETHENE		ND	2.5	ND	12.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	12.5
VINYL CHLORIDE		ND	5.0	ND	25.0
XYLENES		ND	2.5	ND	12.5
ACETONE		ND	50.0	ND	250.0
2-BUTANONE		ND	5.0	ND	25.0
CARBON DISULFIDE		ND	5.0	ND	25.0
-HEXANONE		ND	5.0	ND	25.0
-METHYL-2-PENTANONE		ND	5.0	ND	25.0
STYRENE		ND	5.0	ND	25.0
VINYL ACETATE		ND	5.0	ND	25.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		104%		76%	
TOLUENE-D8		100%		108%	
4-BROMOFLUOROBENZENE		93%		75%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45423	DET.	45424	DET.
	SMP#	B012B10.0	LIM.	B012X15.0	LIM.
	dil.	5		1	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	12.5	ND	2.5
BROMODICHLOROMETHANE		ND	12.5	ND	2.5
BROMOFORM		ND	12.5	ND	2.5
BROMOMETHANE		ND	12.5	ND	2.5
CARBON TETRACHLORIDE		ND	12.5	ND	2.5
CHLOROBENZENE		ND	12.5	ND	2.5
CHLOROETHANE		ND	12.5	ND	2.5
-CHLOROETHYLVINYL ETHER		ND	25.0	ND	5.0
CHLOROFORM		ND	12.5	ND	2.5
CHLOROMETHANE		ND	12.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	12.5	ND	2.5
1,2-DICHLOROBENZENE		ND	12.5	ND	2.5
1,3-DICHLOROBENZENE		ND	12.5	ND	2.5
1,4-DICHLOROBENZENE		ND	12.5	ND	2.5
1,1-DICHLOROETHANE		ND	12.5	ND	2.5
1,2-DICHLOROETHANE		ND	12.5	ND	2.5
1,1-DICHLOROETHENE		ND	12.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	12.5	ND	2.5
1,2-DICHLOROPROPANE		ND	12.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	12.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	12.5	ND	2.5
ETHYL BENZENE		ND	12.5	ND	2.5
METHYLENE CHLORIDE		ND	12.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	12.5	ND	2.5
TETRACHLOROETHENE		ND	12.5	ND	2.5
TOLUENE		ND	12.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	12.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	12.5	ND	2.5
TRICHLOROETHENE		ND	12.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	12.5	ND	2.5
VINYL CHLORIDE		ND	25.0	ND	5.0
XYLENES		ND	12.5	ND	2.5
ACETONE		ND	250.0	ND	50.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45426	DET.	45427	DET.
	SMP#	B012Y15.0	LIM.	B012B20.0	LIM.
	dil.	1		5	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	12.5
BROMODICHLOROMETHANE		ND	2.5	ND	12.5
BROMOFORM		ND	2.5	ND	12.5
BROMOMETHANE		ND	2.5	ND	12.5
CARBON TETRACHLORIDE		ND	2.5	ND	12.5
CHLOROBENZENE		ND	2.5	ND	12.5
CHLOROETHANE		ND	2.5	ND	12.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	25.0
CHLOROFORM		ND	2.5	ND	12.5
CHLOROMETHANE		ND	2.5	ND	12.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	12.5
1,2-DICHLOROBENZENE		ND	2.5	ND	12.5
1,3-DICHLOROBENZENE		ND	2.5	ND	12.5
1,4-DICHLOROBENZENE		ND	2.5	ND	12.5
1,1-DICHLOROETHANE		ND	2.5	ND	12.5
1,2-DICHLOROETHANE		ND	2.5	ND	12.5
1,1-DICHLOROETHENE		ND	2.5	ND	12.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	12.5
1,2-DICHLOROPROPANE		ND	2.5	ND	12.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	12.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	12.5
ETHYL BENZENE		ND	2.5	ND	12.5
METHYLENE CHLORIDE		ND	2.5	ND	12.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	12.5
TETRACHLOROETHENE		ND	2.5	ND	12.5
TOLUENE		ND	2.5	ND	12.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	12.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	12.5
TRICHLOROETHENE		ND	2.5	ND	12.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	12.5
VINYL CHLORIDE		ND	5.0	ND	25.0
XYLENES		ND	2.5	ND	12.5
ACETONE		ND	50.0	ND	250.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45426	DET.	45427	DET.
	SMP#	B012Y15.0	LIM.	B012B20.0	LIM.
	dil.	1		5	
PURGEABLES		ug/kg		ug/kg	
2-BUTANONE		ND	5.0	ND	25.0
CARBON DISULFIDE		ND	5.0	ND	25.0
2-HEXANONE		ND	5.0	ND	25.0
4-METHYL-2-PENTANONE		ND	5.0	ND	25.0
STYRENE		ND	5.0	ND	25.0
VINYL ACETATE		ND	5.0	ND	25.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		91%		85%	
TOLUENE-D8		100%		134%	
4-BROMOFLUOROBENZENE		82%		197%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45428	DET.	45429	DET.
	SMP#	B011B00.0	LIM.	B011B04.5	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45428	DET.	45429	DET.
	SMP#	B011B00.0	LIM.	B011B04.5	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		81%		92%	
TOLUENE-D8		131%		94%	
4-BROMOFLUOROBENZENE		251%		83%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45430	DET.	45431	DET.
	SMP#	B011B06.0	LIM.	B011B10.0	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45430	DET.	45431	DET.
	SMP#	B011B06.0	LIM.	B011B10.0	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		82%		86%	
TOLUENE-D8		123%		124%	
4-BROMOFLUOROBENZENE		213%		186%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45432	DET.	45433	DET.
	SMP#	B011B15.0	LIM.	B011B25.0	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	71	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

COMPOUNDS:	LAB#	45432	DET.	45433	DET.
	SMP#	B011B15.0	LIM.	B011B25.0	LIM.
	dil.	1		1	
PURGEABLES		ug/kg		ug/kg	
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		87%		85%	
TOLUENE-D8		121%		122%	
4-BROMOFLUOROBENZENE		174%		156%	

ND: NOT DETECTED.

NOTE: DUE TO ORGANIC CONTENT OF SAMPLES, THE RECOVERY OF THE THIRD INTERNAL STANDARD WAS LOW IN SOME SAMPLES. SINCE THE THIRD SURROGATE IS QUANTITATED AGAINST THE THIRD INTERNAL STANDARD, THE PERCENT RECOVERY OF THAT SURROGATE VARIED AS WELL, BUT THE ABSOLUTE RECOVERIES OF THAT SURROGATE WERE CONSTANT.

ANALYST:CAROLYN STUDENY

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L A B O R A T O R Y R E S U L T S

Date Collected: 07/28/89
Date Extracted: 08/08/89
Date Analyzed: 08/08/89

Laboratory Job No.: 893489
Date Received: 07/31/89
Date Reported: 09/07/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45421 B012B00.0 GASOLINE	ND	1.0 mg/kg
45422 B012B06.0 GASOLINE	26.9 mg/kg	1.0 mg/kg
45423 B012B10.0 GASOLINE	136 mg/kg	2.7 mg/kg
45424 B012X15.0 GASOLINE	ND	1.0 mg/kg
45426 B012Y15.0 GASOLINE	ND	1.0 mg/kg
45427 B012B20.0 GASOLINE	2.0 mg/kg	1.0 mg/kg
45428 B011B00.0 GASOLINE	ND	1.0 mg/kg
45429 B011B04.5 GASOLINE	ND	1.0 mg/kg
45430 B011B06.0 GASOLINE	ND	1.0 mg/kg
45431 B011B10.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45432	B011B15.0		
	GASOLINE	ND	1.0 mg/kg
45433	B011B25.0		
	GASOLINE	2.0 mg/kg	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-0245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 07/28/89
Date Extracted: 08/07/89
Date Analyzed: 08/17/89

Laboratory Job No.: 893489
Date Received: 07/31/89
Date Reported: 09/07/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45423 B012B10.0				
PHENANTHRENE	0.14	mg/kg	0.024	mg/kg
ANTHRACENE	ND		0.030	mg/kg
FLUORANTHENE	0.397	mg/kg	0.030	mg/kg
PYRENE	0.019	mg/kg	0.0025	mg/kg
BENZO(A)ANTHRACENE	0.0045	mg/kg	0.0010	mg/kg
CHRYSENE	0.0095	mg/kg	0.0048	mg/kg
BENZO(B)FLUORANTHENE	0.0021	mg/kg	0.0016	mg/kg
BENZO(K)FLUORANTHENE	0.00240	mg/kg	0.00014	mg/kg
BENZO(A)PYRENE	0.00482	mg/kg	0.00017	mg/kg
DIBENZ(AH)ANTHRACENE	0.0011	mg/kg	0.00049	mg/kg
BENZO(GHI)PERYLENE	0.0523	mg/kg	0.0043	mg/kg
45424 B012X15.0				
PHENANTHRENE	0.015	mg/kg	0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	0.042	mg/kg	0.0059	mg/kg
PYRENE	0.0021	mg/kg	0.00050	mg/kg
BENZO(A)ANTHRACENE	ND		0.00020	mg/kg
CHRYSENE	0.0076	mg/kg	0.00096	mg/kg
BENZO(B)FLUORANTHENE	0.00082	mg/kg	0.00031	mg/kg
BENZO(K)FLUORANTHENE	ND		0.000029	mg/kg
BENZO(A)PYRENE	ND		0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.000098	mg/kg
BENZO(GHI)PERYLENE	ND		0.00087	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45426 B012Y15.0				
PHENANTHRENE	ND		0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	ND		0.0059	mg/kg
PYRENE	ND		0.00050	mg/kg
BENZO(A)ANTHRACENE	ND		0.00020	mg/kg
CHRYSENE	ND		0.00096	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00031	mg/kg
BENZO(K)FLUORANTHENE	ND		0.000029	mg/kg
BENZO(A)PYRENE	ND		0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.000098	mg/kg
BENZO(GHI)PERYLENE	ND		0.00087	mg/kg
45427 B012B20.0				
PHENANTHRENE	0.48	mg/kg	0.096	mg/kg
ANTHRACENE	ND		0.1200	mg/kg
FLUORANTHENE	0.74	mg/kg	0.1200	mg/kg
PYRENE	0.022	mg/kg	0.0100	mg/kg
BENZO(A)ANTHRACENE	ND		0.0040	mg/kg
CHRYSENE	ND		0.019	mg/kg
BENZO(B)FLUORANTHENE	ND		0.0062	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00058	mg/kg
BENZO(A)PYRENE	ND		0.00066	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.0020	mg/kg
BENZO(GHI)PERYLENE	0.032	mg/kg	0.0174	mg/kg
45433 B011B25.0				
PHENANTHRENE	ND		0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	ND		0.0059	mg/kg
PYRENE	ND		0.00050	mg/kg
BENZO(A)ANTHRACENE	ND		0.00020	mg/kg
CHRYSENE	ND		0.00096	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00031	mg/kg
BENZO(K)FLUORANTHENE	ND		0.000029	mg/kg
BENZO(A)PYRENE	ND		0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.000098	mg/kg
BENZO(GHI)PERYLENE	ND		0.00087	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO SMPLNO-ID	RESULTS	DET.LIM
45423 B012B10.0		
NAPHTHALENE	ND	0.28 mg/kg
ACENAPHTHYLENE	ND	0.46 mg/kg
ACENAPHTHENE	ND	0.66 mg/kg
FLUORENE	ND	0.076 mg/kg
INDENO(123CD)PYRENE	ND	0.076 mg/kg
45424 B012X15.0		
NAPHTHALENE	0.065 mg/kg	0.057 mg/kg
ACENAPHTHYLENE	ND	0.093 mg/kg
ACENAPHTHENE	ND	0.13 mg/kg
FLUORENE	ND	0.015 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg
45426 B012Y15.0		
NAPHTHALENE	ND	0.057 mg/kg
ACENAPHTHYLENE	ND	0.093 mg/kg
ACENAPHTHENE	ND	0.13 mg/kg
FLUORENE	ND	0.015 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg
45427 B012B20.0		
NAPHTHALENE	1.6 mg/kg	0.057 mg/kg
ACENAPHTHYLENE	ND	0.093 mg/kg
ACENAPHTHENE	ND	0.13 mg/kg
FLUORENE	0.15 mg/kg	0.015 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893489

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45433	B011B25.0		
	NAPHTHALENE	ND	0.057 mg/kg
	ACENAPHTHYLENE	ND	0.093 mg/kg
	ACENAPHTHENE	ND	0.13 mg/kg
	FLUORENE	ND	0.015 mg/kg
	INDENO(123CD)PYRENE	ND	0.015 mg/kg

NOTE: PLEASE NOTE THAT DATA ARE REPORTED IN 2 GROUPS FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED FOR QUANTITATION OF TARGET COMPOUNDS.

ANALYST:TIM AOKI

PHASE 2
ANALYSIS

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/04/89
Date Reported: 08/10/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)
TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45404	P178X03.5	TPH	50	24
45405	P178X08.5	TPH	ND	24
45406	P178X09.0	TPH	ND	24
45407	P178X11.0	TPH	ND	24
45408	P195X00.5	TPH	ND	24
45413	P194X01.5	TPH	ND	24
45414	P194X03.5	TPH	ND	24
45415	P194X05.5	TPH	ND	24
45416	P211X01.5	TPH	ND	24

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

CB

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45417	P211X03.5	TPH	46	24

ANALYST:JAN TOISTER

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/08/89
Date Reported: 08/10/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
45408	P195X00.5	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	128	mg/kg	10,000	0.20	mg/kg
		BE	0.41	mg/kg	75	0.20	mg/kg
		CD	3.07	mg/kg	100	0.100	mg/kg
		CO	15.8	mg/kg	8,000	0.40	mg/kg
		CR	47.7	mg/kg	2,500	0.40	mg/kg
		CU	28.4	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.40	mg/kg
		NI	45.2	mg/kg	2,000	1.00	mg/kg
		PB	8.3	mg/kg	1,000	1.00	mg/kg
		SB	ND		500	10.0	mg/kg
		TL	ND		700	4.0	mg/kg
		V	52.5	mg/kg	2,400	0.40	mg/kg
		ZN	46.0	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488
Date Collected: 07/28/89 Date Received: 07/31/89
Date Analyzed: 08/07/89 Date Reported: 08/10/89

LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45404	P178X03.5	PB	36.2	1,000	1.5
		CU	41.9	2,500	0.42
45405	P178X08.5	PB	11	1,000	1.5
		CU	27.3	2,500	0.42
45406	P178X09.0	PB	12	1,000	1.5
		CU	28.6	2,500	0.42
45407	P178X11.0	PB	13	1,000	1.4
		CU	26.0	2,500	0.41
45409	P195Y00.5	PB	14	1,000	1.5
		CU	24.8	2,500	0.42
45410	P195FD0.5	PB	14	1,000	1.5
		CU	29.9	2,500	0.42
45411	P195MD0.5	PB	14	1,000	1.4
		CU	25.2	2,500	0.41
45412	P195X01.0	PB	11	1,000	1.4
		CU	27.3	2,500	0.41
45413	P194X01.5	PB	13	1,000	1.4
		CU	21.7	2,500	0.41

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45414	P194X03.5	PB	15.3	1,000	1.5
		CU	30.9	2,500	0.42
45415	P194X05.5	PB	14.5	1,000	1.4
		CU	26.4	2,500	0.41
45416	P211X01.5	PB	9.8	1,000	1.5
		CU	18.5	2,500	0.42
45417	P211X03.5	PB	11	1,000	1.5
		CU	33.2	2,500	0.42
45418	P212X01.5	PB	11	1,000	1.4
		CU	144	2,500	0.41
45419	P213X03.0	PB	13	1,000	1.5
		CU	23.9	2,500	0.42

ANALYST:NANCY S.TESCHE

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488
Date Collected: 07/28/89
Date Received: 07/31/89
Date Analyzed: 08/09/89
Date Reported: 08/10/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45404	P178X03.5	AS	5.9	500	0.60
45405	P178X08.5	AS	6.50	500	0.60
45406	P178X09.0	AS	5.9	500	0.60
45407	P178X11.0	AS	6.50	500	0.60
45408	P195X00.5	AS	6.92	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
45409	P195Y00.5	AS	6.30	500	0.60
45410	P195FD0.5	AS	6.92	500	0.60
45411	P195MD0.5	AS	6.50	500	0.60
45412	P195X01.0	AS	6.10	500	0.60
45413	P194X01.5	AS	6.50	500	0.60
45414	P194X03.5	AS	7.32	500	0.60
45415	P194X05.5	AS	6.72	500	0.60

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45416	P211X01.5	AS	11.3	500	0.60
45417	P211X03.5	AS	6.30	500	0.60
45418	P212X01.5	AS	5.3	500	0.60
45419	P213X03.0	AS	6.30	500	0.60

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Date Collected: 07/28/89
Date Extracted: 08/04/89
Date Analyzed: 08/04/89

Laboratory Job No.: 893488
Date Received: 07/31/89
Date Reported: 08/10/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45404	P178X03.5 GASOLINE	ND	1.0 mg/kg
45405	P178X08.5 GASOLINE	ND	1.0 mg/kg
45406	P178X09.0 GASOLINE	ND	1.0 mg/kg
45407	P178X11.0 GASOLINE	ND	1.0 mg/kg
45408	P195X00.5 GASOLINE	ND	1.0 mg/kg
45413	P194X01.5 GASOLINE	ND	1.0 mg/kg
45414	P194X03.5 GASOLINE	ND	1.0 mg/kg
45415	P194X05.5 GASOLINE	ND	1.0 mg/kg
45416	P211X01.5 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893488

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45417	P211X03.5		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

FILE SE 2 LAB ANALYSIS

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DAMES & MOORE

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509
Date Collected: 08/01/89
Date Received: 08/01/89
Date Analyzed: 08/09/89
Date Reported: 08/17/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45562	B014B03.0	TPH	ND	6
45563	B014B06.0	TPH	ND	6
45564	B014B10.0	TPH	ND	6
45565	B014B15.0	TPH	ND	6
45566	B015B03.0	TPH	ND	6
45567	B015B06.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509
Date Collected: 08/01/89
Date Received: 08/01/89
Date Analyzed: 08/09/89
Date Reported: 08/17/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45561	B014X00.0	AS	7.54	500	0.60
		CU	1,060	2,500	46
		PB	530	1,000	1.4
45562	B014B03.0	AS	8.16	500	0.60
		CU	26.6	2,500	0.46
		PB	14.6	1,000	1.4
45563	B014B06.0	AS	8.78	500	0.60
		CU	31.4	2,500	0.46
		PB	15.8	1,000	1.4
45564	B014B10.0	AS	8.58	500	0.60
		CU	41.4	2,500	0.46
		PB	17.4	1,000	1.4
45565	B014B15.0	AS	8.58	500	0.60
		CU	26.4	2,500	0.46
		PB	20.6	1,000	1.4
45566	B015B03.0	AS	7.96	500	0.60
		CU	21.4	2,500	0.46
		PB	13	1,000	1.4

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45567	B015B06.0	AS	8.78	500	0.60
		CU	28.2	2,500	0.46
		PB	15.8	1,000	1.4

ANALYST:PRECY ROBINSON

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509
Date Collected: 08/01/89 Date Received: 08/01/89
Date Analyzed: 08/15/89 Date Reported: 08/17/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	45562	DET.	45563	DET.
	SMP#	B014B03.0	LIM.	B014B06.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
ARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509

COMPOUNDS:	LAB#	45562	DET.	45563	DET.
	SMP#	B014B03.0	LIM.	B014B06.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		80	100.0	87	100.0
TOLUENE-D8		101	100.0	102	100.0
4-BROMOFLUOROBENZENE		99	100.0	101	100.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509

COMPOUNDS:	LAB#	45564	DET.	45565	DET.
	SMP#	B014B10.0	LIM.	B014B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509

COMPOUNDS:	LAB#	45564	DET.	45565	DET.
	SMP#	B014B10.0	LIM.	B014B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		95	100.0	85	100.0
TOLUENE-D8		98	100.0	100	100.0
4-BROMOFLUOROBENZENE		94	100.0	90	100.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509

COMPOUNDS:	LAB#	45566	DET.	45567	DET.
	SMP#	B015B03.0	LIM.	B015B06.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893509

COMPOUNDS:	LAB#	45566	DET.	45567	DET.
	SMP#	B015B03.0	LIM.	B015B06.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		86	100.0	82	100.0
TOLUENE-D8		97	100.0	104	100.0
4-BROMOFLUOROBENZENE		93	100.0	101	100.0

ND = NO PEAKS DETECTED

ANALYST:CAROLYN STUDENY

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/01/89
Date Extracted: 08/04/89
Date Analyzed: 08/04/89

Laboratory Job No.: 893509
Date Received: 08/01/89
Date Reported: 08/17/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45562	B014B03.0 GASOLINE	ND	1.0 mg/kg
45563	B014B06.0 GASOLINE	ND	1.0 mg/kg
45564	B014B10.0 GASOLINE	ND	1.0 mg/kg
45565	B014B15.0 GASOLINE	ND	1.0 mg/kg
45566	B015B03.0 GASOLINE	ND	1.0 mg/kg
45567	B015B06.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

Phase 2

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SEP 11 1989
DAMES & MOORE

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508
Date Collected: 08/01/89
Date Received: 08/01/89
Date Analyzed: 08/09/89
Date Reported: 09/07/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45543	P217X01.5	TPH	332.0	6
45544	P217X03.5	TPH	12,100	150
45545	P217X04.0	TPH	ND	6
45548	P216X02.5	TPH	ND	6
45550	P222X01.5	TPH	484.0	6
45551	P222X04.5	TPH	36,100	300
45552	P222X05.0	TPH	19,200	150
45553	P222X07.0	TPH	28,700	150
45554	P222X08.0	TPH	16,800	150
45555	P222X10.0	TPH	500.0	6
45557	P228X01.5	TPH	39	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45558	P228X03.5	TPH	ND	6
45559	P228X04.0	TPH	ND	6

ANALYST:JAN TOISTER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508
Date Collected: 08/01/89 Date Received: 08/01/89
Date Analyzed: 08/09/89 Date Reported: 09/07/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST
BERYLIUM(AA-GF ASSAY EPA 7091)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45543	P217X01.5	AS	18.3	500	0.60
		CU	66.8	2,500	0.46
		PB	210	1,000	1.4
45544	P217X03.5	AS	306	500	12
		CU	123	2,500	0.46
		PB	340	1,000	1.4
45545	P217X04.0	AS	10.4	500	0.60
		CU	22.6	2,500	0.46
		PB	15.0	1,000	1.4
45546	P217X00.0	AS	13.8	500	0.60
		CU	70.0	2,500	0.46
		PB	198	1,000	1.4
45547	P216X00.0	AS	13.4	500	0.60
		CU	28.8	2,500	0.46
		PB	57.4	1,000	1.4
45548	P216X02.5	AS	8.58	500	0.60
		CU	26.8	2,500	0.46
		PB	13	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC		DET.LIM. mg/kg
45549	P222X00.0	AS	15.9	500		0.60
		CU	32.8	2,500		0.46
		PB	68.2	1,000		1.4
45550	P222X01.5	AS	15.9	500		0.60
		CU	53.0	2,500		0.46
		PB	101	1,000		1.4
45551	P222X04.5	AS	13.4	500		0.60
		CU	244	2,500		0.46
		PB	1,260	1,000	*	140
45552	P222X05.0	AS	10.4	500		0.60
		CU	112	2,500		0.46
		PB	1,010	1,000	*	14
45553	P222X07.0	AS	11.3	500		0.60
		CU	250	2,500		0.46
		PB	1,320	1,000	*	140
45554	P222X08.0	AS	8.16	500		0.60
		CU	29.2	2,500		0.46
		PB	28.8	1,000		1.4
45555	P222X10.0	AS	7.96	500		0.60
		CU	30.0	2,500		0.46
		PB	79.2	1,000		1.4
45556	P228X00.0	AS	9.62	500		0.60
		CU	28.2	2,500		0.46
		PB	40.6	1,000		1.4
		SB	ND	500		10
		BE	0.19	75		0.040

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Laboratory Job No.: 893508

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45557	P228X01.5	AS	11.9	500	0.60
		CU	232	2,500	0.46
		PB	596	1,000	1.4
		SB	ND	500	10
		BE	0.422	75	0.040
45558	P228X03.5	AS	9.20	500	0.60
		CU	21.4	2,500	0.46
		PB	15.2	1,000	1.4
		SB	ND	500	10
		BE	0.410	75	0.040
45559	P228X04.0	AS	8.36	500	0.60
		CU	20.2	2,500	0.46
		PB	8.4	1,000	1.4
		SB	ND	500	10
		BE	1.8	75	0.40
45560	P223X00.0	AS	9.20	500	0.60
		CU	27.8	2,500	0.46
		PB	36.4	1,000	1.4
		SB	ND	500	10
		BE	0.37	75	0.040

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508
Date Collected: 08/01/89 Date Received: 08/01/89
Date Analyzed: 08/10/89 Date Reported: 09/07/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
45550	P222X01.5	SOIL	NONE DETECTED		85	QUARTZ
					10	MICA
					5	CLAY

ANALYST:MIKE GRAY

Livia D. Alejandro

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/01/89
Date Extracted: 08/09/89
Date Analyzed: 08/09/89

Laboratory Job No.: 893508
Date Received: 08/01/89
Date Reported: 09/07/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45543 P217X01.5 GASOLINE	ND	1.0 mg/kg
45544 P217X03.5 GASOLINE	ND	1.0 mg/kg
45545 P217X04.0 GASOLINE	ND	1.0 mg/kg
45548 P216X02.5 GASOLINE	ND	1.0 mg/kg
45550 P222X01.5 GASOLINE	ND	1.0 mg/kg
45551 P222X04.5 GASOLINE	16 mg/kg	2.0 mg/kg
45552 P222X05.0 GASOLINE	21.8 mg/kg	2.0 mg/kg
45553 P222X07.0 GASOLINE	11 mg/kg	1.0 mg/kg
45554 P222X08.0 GASOLINE	18.3 mg/kg	2.0 mg/kg
45555 P222X10.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45557	P228X01.5		
	GASOLINE	ND	1.0 mg/kg
45558	P228X03.5		
	GASOLINE	ND	1.0 mg/kg
45559	P228X04.0		
	GASOLINE	ND	1.0 mg/kg

.NALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/01/89
Date Extracted: 08/07/89
Date Analyzed: 08/17/89

Laboratory Job No.: 893508
Date Received: 08/01/89
Date Reported: 09/07/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45543 P217X01.5				
PHENANTHRENE	0.22	mg/kg	0.048	mg/kg
ANTHRACENE	ND		0.060	mg/kg
FLUORANTHENE	0.092	mg/kg	0.059	mg/kg
PYRENE	0.029	mg/kg	0.0050	mg/kg
BENZO(A)ANTHRACENE	0.013	mg/kg	0.0020	mg/kg
CHRYSENE	0.015	mg/kg	0.0096	mg/kg
BENZO(B)FLUORANTHENE	0.010	mg/kg	0.0031	mg/kg
BENZO(K)FLUORANTHENE	0.0065	mg/kg		
BENZO(A)PYRENE	0.014	mg/kg	0.00033	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00098	mg/kg
BENZO(GHI)PERYLENE	0.24	mg/kg	0.0087	mg/kg
45548 P216X02.5				
PHENANTHRENE	0.0079	mg/kg	0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	ND		0.0059	mg/kg
PYRENE	0.0018	mg/kg	0.00050	mg/kg
BENZO(A)ANTHRACENE	ND		0.00020	mg/kg
CHRYSENE	ND		0.00096	mg/kg
BENZO(B)FLUORANTHENE	0.00042	mg/kg	0.00031	mg/kg
BENZO(K)FLUORANTHENE	0.00022	mg/kg	0.000029	mg/kg
BENZO(A)PYRENE	0.00021	mg/kg	0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	0.00076	mg/kg	0.000098	mg/kg
BENZO(GHI)PERYLENE	0.0025	mg/kg	0.00087	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45551 P222X04.5				
PHENANTHRENE	ND		0.24	mg/kg
ANTHRACENE	ND		0.30	mg/kg
FLUORANTHENE	ND		0.30	mg/kg
PYRENE	0.050	mg/kg	0.025	mg/kg
BENZO(A)ANTHRACENE	ND		0.010	mg/kg
CHRYSENE	0.24	mg/kg	0.048	mg/kg
BENZO(B)FLUORANTHENE	0.11	mg/kg	0.016	mg/kg
BENZO(K)FLUORANTHENE	0.0045	mg/kg	0.0014	mg/kg
BENZO(A)PYRENE	0.0045	mg/kg	0.0017	mg/kg
DIBENZ(AH)ANTHRACENE	0.0078	mg/kg	0.0049	mg/kg
BENZO(GHI)PERYLENE	0.16	mg/kg	0.043	mg/kg
45552 P222X05.0				
PHENANTHRENE	ND		0.095	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	0.28	mg/kg	0.12	mg/kg
PYRENE	0.029	mg/kg	0.010	mg/kg
BENZO(A)ANTHRACENE	0.027	mg/kg	0.0041	mg/kg
CHRYSENE	0.13	mg/kg	0.019	mg/kg
BENZO(B)FLUORANTHENE	0.0092	mg/kg	0.0063	mg/kg
BENZO(K)FLUORANTHENE	0.0033	mg/kg	0.00057	mg/kg
BENZO(A)PYRENE	0.0030	mg/kg	0.00066	mg/kg
DIBENZ(AH)ANTHRACENE	0.0040	mg/kg	0.0020	mg/kg
BENZO(GHI)PERYLENE	0.11	mg/kg	0.017	mg/kg
45553 P222X07.0				
PHENANTHRENE	ND		0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	0.016	mg/kg	0.0059	mg/kg
PYRENE	0.0038	mg/kg	0.00050	mg/kg
BENZO(A)ANTHRACENE	0.00081	mg/kg	0.00020	mg/kg
CHRYSENE	0.0024	mg/kg	0.00096	mg/kg
BENZO(B)FLUORANTHENE	0.0019	mg/kg	0.00031	mg/kg
BENZO(K)FLUORANTHENE	0.00085	mg/kg	0.000029	mg/kg
BENZO(A)PYRENE	0.00072	mg/kg	0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	0.00193	mg/kg	0.000098	mg/kg
BENZO(GHI)PERYLENE	0.0079	mg/kg	0.00087	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508

LABNO SMPLNO-ID	RESULTS	DET.LIM
45554 P222X08.0		
PHENANTHRENE	ND	0.095 mg/kg
ANTHRACENE	ND	0.12 mg/kg
FLUORANTHENE	0.31 mg/kg	0.12 mg/kg
PYRENE	0.040 mg/kg	0.010 mg/kg
BENZO(A)ANTHRACENE	ND	0.0041 mg/kg
CHRYSENE	0.228 mg/kg	0.019 mg/kg
BENZO(B)FLUORANTHENE	0.039 mg/kg	0.0063 mg/kg
BENZO(K)FLUORANTHENE	0.0055 mg/kg	0.00057 mg/kg
BENZO(A)PYRENE	0.0056 mg/kg	0.00066 mg/kg
DIBENZ(AH)ANTHRACENE	0.0082 mg/kg	0.0020 mg/kg
BENZO(GHI)PERYLENE	0.180 mg/kg	0.017 mg/kg
45543 P217X01.5		
NAPHTHALENE	ND	0.57 mg/kg
ACENAPHTHYLENE	ND	0.93 mg/kg
ACENAPHTHENE	ND	1.3 mg/kg
FLUORENE	ND	0.15 mg/kg
INDENO(123CD)PYRENE	ND	0.15 mg/kg
45548 P216X02.5		
NAPHTHALENE	ND	0.057 mg/kg
ACENAPHTHYLENE	ND	0.093 mg/kg
ACENAPHTHENE	ND	0.13 mg/kg
FLUORENE	ND	0.015 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg
45551 P222X04.5		
NAPHTHALENE	ND	2.8 mg/kg
ACENAPHTHYLENE	ND	4.6 mg/kg
ACENAPHTHENE	ND	6.6 mg/kg
FLUORENE	ND	0.76 mg/kg
INDENO(123CD)PYRENE	ND	0.76 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893508

LABNO SMPLNO-ID	RESULTS	DET.LIM
45552 P222X05.0		
NAPHTHALENE	ND	1.1 mg/kg
ACENAPHTHYLENE	ND	1.9 mg/kg
ACENAPHTHENE	ND	2.6 mg/kg
FLUORENE	ND	0.30 mg/kg
INDENO(123CD)PYRENE	ND	0.30 mg/kg
45553 P222X07.0		
NAPHTHALENE	ND	0.057 mg/kg
ACENAPHTHYLENE	ND	0.093 mg/kg
ACENAPHTHENE	ND	0.13 mg/kg
FLUORENE	ND	0.015 mg/kg
INDENO(123CD)PYRENE	ND	0.015 mg/kg
45554 P222X08.0		
NAPHTHALENE	ND	1.2 mg/kg
ACENAPHTHYLENE	ND	1.9 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.31 mg/kg
INDENO(123CD)PYRENE	ND	0.31 mg/kg

NOTE: PLEASE NOTE THAT DATA WARE GIVEN IN TWO SETS FOR EACH SAMPLE. THIS IS DONE BECAUSE THERE WERE TWO DETECTORS USED TO QUANTITATE THE TARGET COMPOUNDS.

ANALYST:TIM AOKI

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ENVIRONMENTAL SERVICES
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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534
Date Received: 08/03/89
Date Reported: 08/17/89

Date Analyzed: 08/10/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45687	B015B10.0	TPH	ND	6
45688	B015B15.0	TPH	ND	6
45690	B013B03.0	TPH	ND	6
45691	B013B06.0	TPH	ND	6
45692	B013B10.0	TPH	ND	6
45693	B013B15.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534
Date Received: 08/03/89
Date Reported: 08/17/89

Date Analyzed: 08/09/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45686	B015X00.0	AS	57	500	6.0
		CU	101	2,500	0.40
		PB	554	1,000	1.4
45687	B015B10.0	AS	10.0	500	0.60
		CU	37.8	2,500	0.40
		PB	14.4	1,000	1.4
45688	B015B15.0	AS	48	500	6.0
		CU	31.2	2,500	0.40
		PB	17.0	1,000	1.4
45689	B013X00.0	AS	11.3	500	0.60
		CU	2,440	2,500	40
		PB	378	1,000	1.4
45690	B013B03.0	AS	9.82	500	0.60
		CU	23.6	2,500	0.40
		PB	13	1,000	1.4
45691	B013B06.0	AS	9.82	500	0.60
		CU	34.0	2,500	0.40
		PB	15.2	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45692	B013B10.0	AS	10.0	500	0.60
		CU	37.2	2,500	0.40
		PB	15.0	1,000	1.4
45693	B013B15.0	AS	9.20	500	0.60
		CU	24.0	2,500	0.40
		PB	17.8	1,000	1.4

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534
Date Received: 08/03/89
Date Analyzed: 08/14/89 Date Reported: 08/17/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	45687	DET.	45688	DET.
	SMP#	B015B10.0	LIM.	B015B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534

COMPOUNDS:	LAB#	45687	DET.	45688	DET.
	SMP#	B015B10.0	LIM.	B015B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
TYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		90	100.0	110	100.0
TOLUENE-D8		100	100.0	94	100.0
4-BROMOFLUOROBENZENE		83	100.0	86	100.0

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ENVIRONMENTAL SERVICES
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534

COMPOUNDS:	LAB#	45690	DET.	45691	DET.
	SMP#	B013B03.0	LIM.	B013B06.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
HLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534

COMPOUNDS:	LAB#	45690	DET.	45691	DET.
	SMP#	B013B03.0	LIM.	B013B06.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		90	100.0	86	100.0
TOLUENE-D8		96	100.0	100	100.0
4-BROMOFLUOROBENZENE		83	100.0	88	100.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534

COMPOUNDS:	LAB#	45692	DET.	45693	DET.
	SMP#	B013B10.0	LIM.	B013B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
HLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534

COMPOUNDS:	LAB#	45692	DET.	45693	DET.
	SMP#	B013B10.0	LIM.	B013B15.0	LIM.
PURGEABLES		ug/kg		ug/kg	
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		85	100.0	84	100.0
TOLUENE-D8		104	100.0	98	100.0
4-BROMOFLUOROBENZENE		93	100.0	83	100.0

ND = NO PEAKS DETECTED

ANALYST:CAROLYN STUDENY

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893534
Date Extracted: 08/09/89
Date Analyzed: 08/09/89
Date Received: 08/03/89
Date Reported: 08/17/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45687 B015B10.0 GASOLINE	ND	1.0 mg/kg
45688 B015B15.0 GASOLINE	ND	1.0 mg/kg
45690 B013B03.0 GASOLINE	ND	1.0 mg/kg
45691 B013B06.0 GASOLINE	ND	1.0 mg/kg
45692 B013B10.0 GASOLINE	ND	1.0 mg/kg
45693 B013B15.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
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Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533
Date Collected: 08/02/89
Date Received: 08/03/89
Date Analyzed: 08/10/89
Date Reported: 09/07/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45665	P223X01.5	TPH	1,120	6
45666	P223X03.5	TPH	ND	6
45667	P223X04.0	TPH	ND	6
45668	P210X01.5	TPH	32	6
45669	P223X06.0	TPH	ND	6
45674	P230X01.5	TPH	2,440	60
45675	P230X03.5	TPH	3,480	60
45676	P230X04.0	TPH	315	60
45680	P210X02.0	TPH	ND	6

ANALYST:JAN TOISTER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533
Date Collected: 08/02/89
Date Received: 08/03/89
Date Analyzed: 08/08/89
Date Reported: 09/07/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
45676	P230X04.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	116	mg/kg	10,000	0.20	mg/kg
	BE	0.32	mg/kg	75	0.20	mg/kg
	CD	2.21	mg/kg	100	0.099	mg/kg
	CO	12.4	mg/kg	8,000	0.40	mg/kg
	CR	38.2	mg/kg	2,500	0.40	mg/kg
	CU	41.4	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	37.4	mg/kg	2,000	0.99	mg/kg
	PB	72.2	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	47.0	mg/kg	2,400	0.40	mg/kg
	ZN	51.8	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
45680	P210X02.0 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	106	mg/kg	10,000	0.20	mg/kg
	BE	0.28	mg/kg	75	0.20	mg/kg
	CD	2.29	mg/kg	100	0.099	mg/kg
	CO	13.7	mg/kg	8,000	0.39	mg/kg
	CR	39.4	mg/kg	2,500	0.39	mg/kg
	CU	34.5	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	33.9	mg/kg	2,000	0.99	mg/kg
	PB	12.2	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	3.9	mg/kg
	V	41.0	mg/kg	2,400	0.39	mg/kg
	ZN	42.1	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533
Date Collected: 08/02/89 Date Received: 08/03/89
Date Analyzed: 08/09/89 Date Reported: 09/07/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
BERYLIUM(AA-GF ASSAY EPA 7091)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45665	P223X01.5	AS	10.7	500	0.60
		BE	1.3	75	0.40
		CU	120	2,500	0.46
		PB	53.8	1,000	1.4
		SB	ND	500	10
45666	P223X03.5	AS	10.7	500	0.60
		BE	0.51	75	0.20
		CU	40.8	2,500	0.46
		PB	87.2	1,000	1.4
		SB	ND	500	10
45667	P223X04.0	AS	11.3	500	0.60
		BE	0.51	75	0.20
		CU	30.4	2,500	0.46
		PB	23.2	1,000	1.4
		SB	ND	500	10
45668	P210X01.5	AS	13.4	500	0.60
		CU	40.8	2,500	0.46
		PB	94.4	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45669	P223X06.0	AS	10.7	500	0.60
		CU	18.2	2,500	0.46
		PB	8.4	1,000	1.4
45670	P229X00.0	AS	17.7	500	0.60
		BE	0.17	75	0.040
		CU	15.0	2,500	0.46
		PB	12	1,000	1.4
		SB	ND	500	10
45671	P224X00.0	AS	82.6	500	3.0
		BE	0.31	75	0.040
		CU	165	2,500	0.46
		PB	486	1,000	1.4
		SB	ND	500	10
45672	P224X01.5	AS	102	500	6.0
		BE	0.28	75	0.040
		CU	76.2	2,500	0.46
		PB	87.2	1,000	1.4
		SB	ND	500	10
45673	P229X04.5	AS	53	500	6.0
		BE	0.404	75	0.040
		CU	1,420	2,500	4.6
		PB	17,900	1,000 *	140
		SB	142	500	10
45674	P230X01.5	AS	10.2	500	0.60
		CU	102	2,500	0.46
		PB	312	1,000	1.4
45675	P230X03.5	AS	15.5	500	0.60
		CU	17.0	2,500	0.46
		PB	23.0	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45676	P230X04.0	AS	18.1	500	0.60
		SE	ND	100	0.60
		HG	0.11	20	0.040
45677	P230X04.0	AS	115	500	6.0
		CU	35.6	2,500	0.46
		PB	49.6	1,000	1.4
45678	P230MD4.0	AS	111	500	6.0
		CU	32.4	2,500	0.46
		PB	49.4	1,000	1.4
45679	P230FD4.0	AS	166	500	6.0
		CU	40.6	2,500	0.46
		PB	42.8	1,000	1.4
45680	P210X02.0	AS	10.9	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
45681	P210X02.0	AS	50	500	6.0
		CU	25.2	2,500	0.46
		PB	8.2	1,000	1.4
45682	P210MD2.0	AS	5.9	500	0.60
		CU	23.8	2,500	0.46
		PB	9.4	1,000	1.4
45683	P210FD4.0	AS	6.72	500	0.60
		CU	21.8	2,500	0.46
		PB	10	1,000	1.4
45684	P210X00.0	AS	10.9	500	0.60
		CU	41.2	2,500	0.46
		PB	96.4	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45685	P230X00.0	AS	4.9	500	0.60
		CU	10.8	2,500	0.46
		PB	5.8	1,000	1.4

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533
Date Collected: 08/02/89
Date Received: 08/03/89
Date Analyzed: 08/10/89
Date Reported: 09/07/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
45673	P229X04.5	SOIL		NONE DETECTED	85	QUARTZ
					5	CELLULOSE FIBERS
					5	TAR
					5	CLAY

for. Vivian G. Alejandro
NALYST:MIKE GRAY

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/02/89
Date Extracted: 08/11/89
Date Analyzed: 08/11/89

Laboratory Job No.: 893533
Date Received: 08/03/89
Date Reported: 09/07/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45665 P223X01.5 GASOLINE	ND	1.0 mg/kg
45666 P223X03.5 GASOLINE	ND	1.0 mg/kg
45667 P223X04.0 GASOLINE	ND	1.0 mg/kg
45668 P210X01.5 GASOLINE	ND	1.0 mg/kg
45669 P223X06.0 GASOLINE	ND	1.0 mg/kg
45674 P230X01.5 GASOLINE	2.6 mg/kg	1.0 mg/kg
45675 P230X03.5 GASOLINE	ND	1.0 mg/kg
45676 P230X04.0 GASOLINE	ND	1.0 mg/kg
45680 P210X02.0 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/02/89
Date Extracted: 08/07/89
Date Analyzed: 08/19/89

Laboratory Job No.: 893533
Date Received: 08/03/89
Date Reported: 09/07/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45674 P230X01.5				
PHENANTHRENE	1.90	mg/kg	0.095	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	2.38	mg/kg	0.12	mg/kg
PYRENE	0.24	mg/kg	0.010	mg/kg
BENZO(A)ANTHRACENE	0.089	mg/kg	0.0041	mg/kg
CHRYSENE	0.023	mg/kg	0.019	mg/kg
BENZO(B)FLUORANTHENE	0.068	mg/kg	0.0063	mg/kg
BENZO(K)FLUORANTHENE	0.022	mg/kg	0.00058	mg/kg
BENZO(A)PYRENE	0.032	mg/kg	0.00066	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.0020	mg/kg
BENZO(GHI)PERYLENE	5.8	mg/kg	0.017	mg/kg
45676 P230X04.0				
PHENANTHRENE	ND		0.095	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	ND		0.12	mg/kg
PYRENE	0.018	mg/kg	0.010	mg/kg
BENZO(A)ANTHRACENE	ND		0.0041	mg/kg
CHRYSENE	ND		0.019	mg/kg
BENZO(B)FLUORANTHENE	0.0075	mg/kg	0.0063	mg/kg
BENZO(K)FLUORANTHENE	0.0036	mg/kg	0.00058	mg/kg
BENZO(A)PYRENE	0.0080	mg/kg	0.00066	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.0020	mg/kg
BENZO(GHI)PERYLENE	0.180	mg/kg	0.017	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893533

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45680 P210X02.0				
PHENANTHRENE	0.011	mg/kg	0.0048	mg/kg
ANTHRACENE	ND		0.0060	mg/kg
FLUORANTHENE	ND		0.0059	mg/kg
PYRENE	0.0044	mg/kg	0.00050	mg/kg
BENZO(A)ANTHRACENE	0.00076	mg/kg	0.00020	mg/kg
CHRYSENE	0.0038	mg/kg	0.00096	mg/kg
BENZO(B)FLUORANTHENE	0.0015	mg/kg	0.00031	mg/kg
BENZO(K)FLUORANTHENE	0.000806	mg/kg	0.000029	mg/kg
BENZO(A)PYRENE	0.000517	mg/kg	0.000033	mg/kg
DIBENZ(AH)ANTHRACENE	0.00042	mg/kg	0.000098	mg/kg
BENZO(GHI)PERYLENE	0.0155	mg/kg	0.00087	mg/kg
45674 P230X01.5				
NAPHTHALENE	ND		1.1	mg/kg
ACENAPHTHYLENE	ND		1.9	mg/kg
ACENAPHTHENE	ND		2.6	mg/kg
FLUORENE	ND		0.30	mg/kg
INDENO(123CD)PYRENE	ND		0.30	mg/kg
45676 P230X04.0				
NAPHTHALENE	ND		1.1	mg/kg
ACENAPHTHYLENE	2.3	mg/kg	1.9	mg/kg
ACENAPHTHENE	ND		2.6	mg/kg
FLUORENE	ND		0.30	mg/kg
INDENO(123CD)PYRENE	ND		0.30	mg/kg
45680 P210X02.0				
NAPHTHALENE	ND		0.057	mg/kg
ACENAPHTHYLENE	0.11	mg/kg	0.093	mg/kg
ACENAPHTHENE	ND		0.13	mg/kg
FLUORENE	ND		0.015	mg/kg
INDENO(123CD)PYRENE	ND		0.015	mg/kg

ANALYST:TIM AOKI

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893578
Date Received: 08/07/89
Date Reported: 08/16/89

Date Analyzed: 08/14/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

ATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45997	MW25B10.0	AS	6.50	500	0.60
		PB	11	1,000	1.4
		CU	22.8	2,500	0.40
45998	MW25B15.0	AS	7.74	500	0.60
		PB	13	1,000	1.4
		CU	19.2	2,500	0.40
45999	MW25B20.0	AS	5.7	500	0.60
		PB	7.2	1,000	1.4
		CU	11.8	2,500	0.40

ANALYST:PRECY ROBINSON

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893578
Date Extracted: 08/14/89
Date Received: 08/07/89
Date Analyzed: 08/14/89
Date Reported: 08/16/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45997	MW25B10.0		
	GASOLINE	ND	1.0 mg/kg
45998	MW25B15.0		
	GASOLINE	ND	1.0 mg/kg
45999	MW25B20.0		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR-SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576
Date Collected: 08/03/89
Date Received: 08/07/89
Date Analyzed: 08/11/89
Date Reported: 09/27/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45967	P221X01.5	TPH	ND	6
45968	P221X03.5	TPH	292.0	6
45969	P221X04.5	TPH	244.0	6
45970	P221X05.0	TPH	11,000	300
45971	P221X08.0	TPH	ND	6
45972	P220X02.0	TPH	2,050	60
45973	P220X04.5	TPH	110	6
45974	P220X05.0	TPH	ND	6
45975	P220X07.0	TPH	ND	6
45977	P231X01.5	TPH	648.0	6
45978	P231X04.0	TPH	3,870	60

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
45979	P231X04.5	TPH	2,760	60
45986	P208X01.5	TPH	ND	6
45991	P208XGRAB	TPH	269,000	3,000

ANALYST:JAN TOISTER

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576
Date Collected: 08/03/89 Date Received: 08/07/89
Date Analyzed: 08/08/89 Date Reported: 09/27/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
45986	P208X01.5 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	73.0	mg/kg	10,000	0.20	mg/kg
	BE	0.47	mg/kg	75	0.20	mg/kg
	CD	3.07	mg/kg	100	0.098	mg/kg
	CO	15.0	mg/kg	8,000	0.39	mg/kg
	CR	53.1	mg/kg	2,500	0.39	mg/kg
	CU	29.9	mg/kg	2,500	0.20	mg/kg
	MO	0.48	mg/kg	3,500	0.39	mg/kg
	NI	43.7	mg/kg	2,000	0.98	mg/kg
	PB	15.4	mg/kg	1,000	0.98	mg/kg
	SB	ND		500	9.8	mg/kg
	TL	ND		700	3.9	mg/kg
	V	56.9	mg/kg	2,400	0.39	mg/kg
	ZN	40.8	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576
Date Collected: 08/03/89 Date Received: 08/07/89
Date Analyzed: 08/11/89 Date Reported: 09/27/89

MERCURY (AA FLAMELESS EPA 7470)
ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
SELENIUM IN WASTE BY AA-G 7740)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45965	P220X00.0	AS	6.10	500	0.60
		PB	14.2	1,000	1.4
		CU	21.4	2,500	0.40
45966	P221X00.0	AS	6.10	500	0.60
		PB	16.8	1,000	1.4
		CU	20.8	2,500	0.40
45967	P221X01.5	AS	8.36	500	0.60
		PB	21.6	1,000	1.4
		CU	27.6	2,500	0.40
45968	P221X03.5	AS	5.9	500	0.60
		PB	5,960	1,000 *	140
		CU	26.4	2,500	0.40
45969	P221X04.5	AS	14.7	500	0.60
		PB	37.8	1,000	1.4
		CU	17.0	2,500	0.40
45970	P221X05.0	AS	14.5	500	0.60
		PB	26.8	1,000	1.4
		CU	33.0	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45971	P221X08.0	AS	8.98	500	0.60
		PB	36.0	1,000	1.4
		CU	24.2	2,500	0.40
45972	P220X02.0	AS	10.4	500	0.60
		PB	524	1,000	1.4
		CU	208	2,500	0.40
45973	P220X04.5	AS	12.1	500	0.60
		PB	502	1,000	1.4
		CU	87.8	2,500	0.40
45974	P220X05.0	AS	6.50	500	0.60
		PB	13	1,000	1.4
		CU	19.8	2,500	0.40
45975	P220X07.0	AS	7.96	500	0.60
		PB	10	1,000	1.4
		CU	17.0	2,500	0.40
45976	P231X00.0	AS	7.12	500	0.60
		PB	23.6	1,000	1.4
		CU	23.0	2,500	0.40
45977	P231X01.5	AS	7.96	500	0.60
		PB	77.6	1,000	1.4
		CU	60.2	2,500	0.40
45978	P231X04.0	AS	153	500	6.0
		PB	578	1,000	1.4
		CU	126	2,500	0.40
45979	P231X04.5	AS	161	500	6.0
		PB	202	1,000	1.4
		CU	60.8	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45980	P218X00.0	AS	6.72	500	0.60
		PB	13	1,000	1.4
		CU	23.2	2,500	0.40
45981	P219X00.0	AS	7.12	500	0.60
		PB	10	1,000	1.4
		CU	23.4	2,500	0.40
45982	P232X00.0	AS	5.9	500	0.60
		PB	15.8	1,000	1.4
		CU	29.2	2,500	0.40
45983	P234X00.0	AS	4.7	500	0.60
		PB	11	1,000	1.4
		CU	16.2	2,500	0.40
45984	P208X00.0	AS	48	500	6.0
		PB	4,160	1,000 *	140
		CU	710	2,500	4.0
45985	P209X00.0	AS	14.2	500	0.60
		PB	52.0	1,000	1.4
		CU	288	2,500	0.40
45986	P208X01.5	HG	ND	20	0.040
		AS	10.0	500	0.60
		SE	ND	100	0.60
45987	P208Y01.5	AS	8.58	500	0.60
		PB	73.8	1,000	1.4
		CU	60.6	2,500	0.40
45988	P208MD01.5	AS	7.96	500	0.60
		PB	35.0	1,000	1.4
		CU	36.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
45989	P208FD1.5	AS	6.00	500	0.60
		PB	44.0	1,000	1.4
		CU	44.0	2,500	0.40

ANALYST:PRECY ROBINSON

ACCUTEST
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576
Date Collected: 08/03/89 Date Received: 08/07/89
Date Analyzed: 08/10/89 Date Reported: 09/27/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
45968	P221X03.5	SOIL	NONE	DETECTED	90	QUARTZ
					5	CELLULOSE FIBERS
					5	TAR
5969	P221X04.5	SOIL	NONE	DETECTED	60	QUARTZ
					40	CLAY
45972	P220X02.0	SOIL	TRACE	CHRYSOTILE	55	QUARTZ
					30	CLAY
					10	TAR
					5	CELLULOSE FIBERS
45977	P231X01.5	SOIL	TRACE	CHRYSOTILE	60	QUARTZ
					35	CLAY
					5	TAR
45978	P231X04.0	SOIL	TRACE	CHRYSOTILE	60	QUARTZ
					20	CLAY
					15	TAR
					5	CELLULOSE FIBERS

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
45990	P220P02.0	BRICK		NONE DETECTED	100	BRICK

NOTE: TRACE = 0.1% TO 1%

ANALYST:MIKE GRAY

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/03/89
Date Extracted: 08/17/89
Date Analyzed: 08/17/89

Laboratory Job No.: 893576
Date Received: 08/07/89
Date Reported: 09/27/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45967	P221X01.5		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/03/89
Date Extracted: 08/15/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893576
Date Received: 08/07/89
Date Reported: 09/27/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45977 P231X01.5 GASOLINE	ND	1.0 mg/kg
45978 P231X04.0 GASOLINE	ND	1.0 mg/kg
45979 P231X04.5 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/03/89
Date Extracted: 08/11/89
Date Analyzed: 08/11/89

Laboratory Job No.: 893576
Date Received: 08/07/89
Date Reported: 09/27/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45968	P221X03.5		
	GASOLINE	280 mg/kg	1.0 mg/kg
45969	P221X04.5		
	GASOLINE	ND	1.0 mg/kg
45970	P221X05.0		
	GASOLINE	530 mg/kg	1.0 mg/kg
45971	P221X08.0		
	GASOLINE	23.0 mg/kg	1.0 mg/kg
45972	P220X02.0		
	GASOLINE	16.0 mg/kg	1.0 mg/kg
45973	P220X04.5		
	GASOLINE	ND	1.0 mg/kg
45974	P220X05.0		
	GASOLINE	ND	1.0 mg/kg
45975	P220X07.0		
	GASOLINE	ND	1.0 mg/kg
45986	P208X01.5		
	GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO-ID	RESULTS	DET.LIM
45991	P208X0GRAB GASOLINE	130,000 mg/kg	300 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/03/89
Date Extracted: 08/16/89
Date Analyzed: 09/13/89

Laboratory Job No.: 893576
Date Received: 08/07/89
Date Reported: 09/27/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
45968 P221X03.5		
NAPHTHALENE	ND	0.33 mg/kg
ACENAPHTHYLENE	ND	0.49 mg/kg
ACENAPHTHENE	ND	0.68 mg/kg
FLUORENE	ND	0.071 mg/kg
45969 P221X04.5		
NAPHTHALENE	ND	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.29 mg/kg
45972 P220X02.0		
NAPHTHALENE	4.4 mg/kg	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	0.43 mg/kg	0.29 mg/kg
45973 P220X04.5		
NAPHTHALENE	2.1 mg/kg	0.33 mg/kg
ACENAPHTHYLENE	ND	0.49 mg/kg
ACENAPHTHENE	ND	0.68 mg/kg
FLUORENE	ND	0.071 mg/kg
45974 P220X05.0		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO SMPLNO-ID	RESULTS	DET.LIM
45986 P208X01.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
45991 P208X0GRAB		
NAPHTHALENE	48 mg/kg	33.0 mg/kg
ACENAPHTHYLENE	ND	49.0 mg/kg
ACENAPHTHENE	ND	68.0 mg/kg
FLUORENE	ND	7.1 mg/kg
45968 P221X03.5		
PHENANTHRENE	0.15 mg/kg	0.096 mg/kg
ANTHRACENE	ND	0.23 mg/kg
FLUORANTHENE	0.0629 mg/kg	0.0055 mg/kg
PYRENE	0.090 mg/kg	0.016 mg/kg
BENZO(A)ANTHRACENE	0.028 mg/kg	0.0022 mg/kg
CHRYSENE	ND	0.034 mg/kg
BENZO(B)FLUORANTHENE	0.014 mg/kg	0.0037 mg/kg
BENZO(K)FLUORANTHENE	.018 mg/kg	0.0010 mg/kg
BENZO(A)PYRENE	0.034 mg/kg	0.0015 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.0034 mg/kg
BENZO(GHI)PERYLENE	0.054 mg/kg	0.0032 mg/kg
INDENO(123CD)PYRENE	ND	0.014 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO SMPLNO-ID	RESULTS		DET.LIM	
45969 P221X04.5				
PHENANTHRENE	ND		0.38	mg/kg
ANTHRACENE	ND		0.90	mg/kg
FLUORANTHENE	ND		0.022	mg/kg
PYRENE	ND		0.062	mg/kg
BENZO(A)ANTHRACENE	0.012	mg/kg	0.0086	mg/kg
CHRYSENE	ND		0.13	mg/kg
BENZO(B)FLUORANTHENE	0.035	mg/kg	0.015	mg/kg
BENZO(K)FLUORANTHENE	0.018	mg/kg	0.0042	mg/kg
BENZO(A)PYRENE	0.024	mg/kg	0.0061	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.014	mg/kg
BENZO(GHI)PERYLENE	0.043	mg/kg	0.013	mg/kg
INDENO(123CD)PYRENE	ND		0.057	mg/kg
45972 P220X02.0				
PHENANTHRENE	4.48	mg/kg	0.38	mg/kg
ANTHRACENE	ND		0.90	mg/kg
FLUORANTHENE	0.59	mg/kg	0.022	mg/kg
PYRENE	0.40	mg/kg	0.062	mg/kg
BENZO(A)ANTHRACENE	0.068	mg/kg	0.0086	mg/kg
CHRYSENE	ND		0.13	mg/kg
BENZO(B)FLUORANTHENE	0.056	mg/kg	0.015	mg/kg
BENZO(K)FLUORANTHENE	ND		0.0042	mg/kg
BENZO(A)PYRENE	0.058	mg/kg	0.0061	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.014	mg/kg
BENZO(GHI)PERYLENE	0.14	mg/kg	0.013	mg/kg
INDENO(123CD)PYRENE	ND		0.057	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
45973	P220X04.5				
	PHENANTHRENE	2.22	mg/kg	0.096	mg/kg
	ANTHRACENE	ND		0.23	mg/kg
	FLUORANTHENE	0.39	mg/kg	0.0055	mg/kg
	PYRENE	0.42	mg/kg	0.016	mg/kg
	BENZO(A)ANTHRACENE	0.13	mg/kg	0.0022	mg/kg
	CHRYSENE	0.48	mg/kg	0.034	mg/kg
	BENZO(B)FLUORANTHENE	0.11	mg/kg	0.0037	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.0010	mg/kg
	BENZO(A)PYRENE	0.0630	mg/kg	0.0015	mg/kg
	DIBENZ(AH)ANTHRACENE	0.019	mg/kg	0.0034	mg/kg
	BENZO(GHI)PERYLENE	0.037	mg/kg	0.0032	mg/kg
	INDENO(123CD)PYRENE	0.42	mg/kg	0.014	mg/kg
45974	P220X05.0				
	PHENANTHRENE	0.040	mg/kg	0.019	mg/kg
	ANTHRACENE	ND		0.045	mg/kg
	FLUORANTHENE	ND		0.0011	mg/kg
	PYRENE	ND		0.0031	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00043	mg/kg
	CHRYSENE	ND		0.0067	mg/kg
	BENZO(B)FLUORANTHENE	0.0015	mg/kg	0.00073	mg/kg
	BENZO(K)FLUORANTHENE	0.00055	mg/kg	0.00021	mg/kg
	BENZO(A)PYRENE	0.00059	mg/kg	0.00031	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00068	mg/kg
	BENZO(GHI)PERYLENE	0.002	mg/kg	0.00065	mg/kg
	INDENO(123CD)PYRENE	0.0056	mg/kg	0.0029	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893576

LABNO SMPLNO-ID	RESULTS	DET.LIM
45986 P208X01.5		
PHENANTHRENE	ND	0.019 mg/kg
ANTHRACENE	ND	0.045 mg/kg
FLUORANTHENE	ND	0.0011 mg/kg
PYRENE	ND	0.0031 mg/kg
BENZO(A)ANTHRACENE	ND	0.00043 mg/kg
CHRYSENE	ND	0.0067 mg/kg
BENZO(B)FLUORANTHENE	ND	0.00073 mg/kg
BENZO(K)FLUORANTHENE	ND	0.00021 mg/kg
BENZO(A)PYRENE	ND	0.00031 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.00068 mg/kg
BENZO(GHI)PERYLENE	ND	0.00065 mg/kg
INDENO(123CD)PYRENE	ND	0.0029 mg/kg
45991 P208X0GRAB		
PHENANTHRENE	ND	9.6 mg/kg
ANTHRACENE	ND	23.0 mg/kg
FLUORANTHENE	ND	0.55 mg/kg
PYRENE	ND	1.6 mg/kg
BENZO(A)ANTHRACENE	0.36 mg/kg	0.22 mg/kg
CHRYSENE	ND	3.4 mg/kg
BENZO(B)FLUORANTHENE	ND	0.37 mg/kg
BENZO(K)FLUORANTHENE	0.12 mg/kg	0.10 mg/kg
BENZO(A)PYRENE	ND	0.15 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.34 mg/kg
BENZO(GHI)PERYLENE	0.359 mg/kg	0.32 mg/kg
INDENO(123CD)PYRENE	4.8 mg/kg	1.4 mg/kg

NOTE: TWO RESULTS ARE SHOWN FOR EACH SAMPLE AS TWO
DETECTORS WERE USED AS PER METHOD 8310.
ANALYST:TIM AOKI

ANALYST:TIM AOKI

LAB I.D. ERRORS - SEE TELECON
AMMENED REPORT FORTHCOMING

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

C.
Projec

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616
Date Received: 08/08/89
Date Reported: 10/19/89

Date Collected: 08/05/89
Date Analyzed: 08/11/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46283	P204X04.5	TPH	2,330	30
46284	P204X02.0	TPH	2,450	30
46285	P204X03.5	TPH	452.0	6
46286	P204X04.0	TPH	532.0	6
46287	P205X01.0	TPH	ND	6
46290	P204X01.0	TPH	ND	6
46291	P204X01.5	TPH	ND	6
46293	P207X01.5	TPH	ND	6
46298	MW25X00.0	TPH	ND	6

see note

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616
Date Collected: 08/05/89 Date Received: 08/08/89
Date Analyzed: 08/17/89 Date Reported: 10/19/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46268	P186X00.0	AS	12.9	500	0.58
		PB	3,640	1,000 *	135
		CU	263	2,500	0.39
46269	P187X00.0	AS	15.2	500	0.60
		PB	431	1,000	1.4
		CU	226	2,500	0.40
46270	P189X00.0	AS	54.5	500	3.0
		PB	461	1,000	1.4
		CU	290	2,500	0.40
		SB	14	500	9.9
46271	P190X00.0	AS	45.8	500	3.0
		PB	512	1,000	1.4
		CU	520	2,500	3.9
		SB	9.9	500	9.9
46272	P191X00.0	AS	27	500	2.9
		PB	273	1,000	1.4
		CU	245	2,500	0.39
		SB	ND	500	9.8

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46273	P193X00.0	AS	54.5	500	3.0
		PB	479	1,000	1.4
		CU	154	2,500	0.40
46274	P194X00.0	AS	55.6	500	3.0
		PB	204	1,000	1.4
		CU	196	2,500	0.40
46275	P195X00.0	AS	33.8	500	3.0
		PB	184	1,000	1.4
		CU	128	2,500	0.40
46276	P196X00.0	AS	54.8	500	3.0
		PB	157	1,000	1.4
		CU	87.4	2,500	0.40
46277	P197X00.0	AS	38.4	500	3.0
		PB	216	1,000	1.4
		CU	114	2,500	0.40
46278	P198X00.0	AS	29	500	3.0
		PB	238	1,000	1.4
		CU	232	2,500	0.40
46279	P199X00.0	AS	24	500	3.0
		PB	148	1,000	1.4
		CU	167	2,500	0.40
46280	P201X00.0	AS	9.50	500	0.60
		PB	36.0	1,000	1.4
		CU	45.2	2,500	0.40
46281	P202X00.0	AS	9.86	500	0.60
		PB	34.8	1,000	1.4
		CU	44.0	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46282	P203X00.0	AS	9.86	500	0.60
		PB	96.0	1,000	1.4
		CU	68.8	2,500	0.40
46283	P204X04.5	AS	138	500	6.0
		PB	1,540	1,000 *	28
		CU	620	2,500	8.0
46284	P208X02.0	AS	49.4	500	3.0
		PB	8,800	1,000 *	140
		CU	1,240	2,500	8.0
46285	P208X03.5	AS	59.2	500	3.0
		PB	560	1,000	1.4
		CU	101	2,500	0.40
46286	P208X04.0	AS	56.6	500	3.0
		PB	496	1,000	1.4
		CU	155	2,500	0.40
46287	P205X01.0	AS	8.78	500	0.60
		PB	31.8	1,000	1.4
		CU	35.2	2,500	0.40
46288	P205X00.0	AS	35.8	500	3.0
		PB	510	1,000	1.4
		CU	316	2,500	0.40
46289	P204X00.0	AS	52.0	500	3.0
		PB	696	1,000	14
		CU	388	2,500	0.40
46290	P204X01.0	AS	40.2	500	3.0
		PB	456	1,000	14
		CU	39.8	2,500	0.40

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46291	P204X01.5	AS	9.68	500	0.60
		PB	15.2	1,000	1.4
		CU	28.6	2,500	0.40
46292	P207X00.0	AS	67.4	500	3.0
		PB	956	1,000	1.4
		CU	400	2,500	0.40
46293	P207X01.5	AS	11.7	500	0.60
		PB	654	1,000	14
		CU	189	2,500	0.40
46294	P206X00.0	AS	38.4	500	3.0
		PB	850	1,000	1.4
		CU	312	2,500	0.40
46295	P207X03.0	AS	10.8	500	0.60
		PB	173	1,000	1.4
		CU	104	2,500	0.40
46296	P206X03.0	AS	8.78	500	0.60
		PB	22.6	1,000	1.4
		CU	51.6	2,500	0.40
46297	P219X06.5	AS	10.2	500	0.60
		PB	13	1,000	1.4
		CU	24.4	2,500	0.40
46298	MW25X00.0	AS	47.6	500	3.0
		PB	107	1,000	1.4
		CU	32.0	2,500	0.40
46299	MW25F00.0	AS	11.7	500	0.60
		PB	104	1,000	1.4
		CU	67.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46300	MW25Y00.0	AS	12.0	500	0.60
		PB	101	1,000	1.4
		CU	73.0	2,500	0.40
46301	MW25MD0.0	AS	10.6	500	0.60
		PB	78.8	1,000	1.4
		CU	58.2	2,500	0.40
46302	MW25B03.0	AS	10.2	500	0.60
		PB	17.4	1,000	1.4
		CU	27.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616
Date Collected: 08/05/89
Date Received: 08/08/89
Date Analyzed: 08/17/89
Date Reported: 10/19/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	46298	DET.
	SMP#	MW25XOO.O	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
ARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		5.2	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

COMPOUNDS:	LAB#	46298	DET.
	SMP#	MW25X00.0	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		150	100.0
TOLUENE-D8		94	100.0
4-BROMOFLUOROBENZENE		89	100.0

ND = NO PEAKS DETECTED

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/05/89
Date Extracted: 08/14/89
Date Analyzed: 08/14/89

Laboratory Job No.: 893616
Date Received: 08/08/89
Date Reported: 10/19/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46287 P205X01.0 GASOLINE	ND	1.0 mg/kg
46290 P204X01.0 GASOLINE	ND	1.0 mg/kg
46291 P204X01.5 GASOLINE	ND	1.0 mg/kg
46293 P207X01.5 GASOLINE	ND	1.0 mg/kg
46298 MW25X00.0 GASOLINE	ND	1.0 mg/kg
46299 MW25FD0.0 GASOLINE	ND	1.0 mg/kg
46300 MW25Y00.0 GASOLINE	ND	1.0 mg/kg
46301 MW25MD0.0 GASOLINE	ND	1.0 mg/kg
46302 MW25B03.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/05/89
Date Extracted: 08/16/89
Date Analyzed: 09/14/89

Laboratory Job No.: 893616
Date Received: 08/08/89
Date Reported: 10/19/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46283 P204X04.5		
NAPHTHALENE	ND	6.9 mg/kg
ACENAPHTHYLENE	ND	9.9 mg/kg
ACENAPHTHENE	ND	14.0 mg/kg
FLUORENE	ND	1.5 mg/kg
46284 P208X02.0		
NAPHTHALENE	ND	6.9 mg/kg
ACENAPHTHYLENE	ND	9.9 mg/kg
ACENAPHTHENE	ND	14.0 mg/kg
FLUORENE	ND	1.5 mg/kg
46285 P208X03.5		
NAPHTHALENE	ND	1.4 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.30 mg/kg
46286 P208X04.0		
NAPHTHALENE	ND	6.9 mg/kg
ACENAPHTHYLENE	ND	9.9 mg/kg
ACENAPHTHENE	ND	14.0 mg/kg
FLUORENE	ND	1.5 mg/kg
46293 P207X01.5		
NAPHTHALENE	ND	0.17 mg/kg
ACENAPHTHYLENE	0.98 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	ND	0.037 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO SMPLNO-ID	RESULTS	DET.LIM
46298 MW25X00.0		
NAPHTHALENE	ND	0.069 mg/kg
ACENAPHTHYLENE	ND	0.099 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.015 mg/kg
46283 P204X04.5		
PHENANTHRENE	ND	2.2 mg/kg
ANTHRACENE	ND	4.8 mg/kg
FLUORANTHENE	ND	0.12 mg/kg
PYRENE	ND	0.50 mg/kg
BENZO(A)ANTHRACENE	ND	0.046 mg/kg
CHRYSENE	ND	0.071 mg/kg
BENZO(B)FLUORANTHENE	ND	0.080 mg/kg
BENZO(K)FLUORANTHENE	ND	0.022 mg/kg
BENZO(A)PYRENE	ND	0.035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.074 mg/kg
BENZO(GHI)PERYLENE	ND	0.085 mg/kg
INDENO(123CD)PYRENE	ND	0.29 mg/kg
46284 P208X02.0		
PHENANTHRENE	ND	2.2 mg/kg
ANTHRACENE	ND	4.8 mg/kg
FLUORANTHENE	0.28 mg/kg	0.12 mg/kg
PYRENE	ND	0.50 mg/kg
BENZO(A)ANTHRACENE	0.053 mg/kg	0.046 mg/kg
CHRYSENE	ND	0.071 mg/kg
BENZO(B)FLUORANTHENE	ND	0.080 mg/kg
BENZO(K)FLUORANTHENE	0.047 mg/kg	0.022 mg/kg
BENZO(A)PYRENE	0.088 mg/kg	0.035 mg/kg
DIBENZ(AH)ANTHRACENE	0.24 mg/kg	0.074 mg/kg
BENZO(GHI)PERYLENE	ND	0.085 mg/kg
INDENO(123CD)PYRENE	ND	0.29 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO SMPLNO-ID	RESULTS		DET.LIM	
46285 P208X03.5				
PHENANTHRENE	ND		0.43	mg/kg
ANTHRACENE	ND		0.96	mg/kg
FLUORANTHENE	0.054	mg/kg	0.023	mg/kg
PYRENE	ND		0.10	mg/kg
BENZO(A)ANTHRACENE	0.014	mg/kg	0.0093	mg/kg
CHRYSENE	ND		0.014	mg/kg
BENZO(B)FLUORANTHENE	ND		0.016	mg/kg
BENZO(K)FLUORANTHENE	0.0048	mg/kg	0.0043	mg/kg
BENZO(A)PYRENE	0.021	mg/kg	0.0070	mg/kg
DIBENZ(AH)ANTHRACENE	0.023	mg/kg	0.015	mg/kg
BENZO(GHI)PERYLENE	ND		0.017	mg/kg
INDENO(123CD)PYRENE	ND		0.058	mg/kg
46286 P208X04.0				
PHENANTHRENE	ND		2.2	mg/kg
ANTHRACENE	ND		4.8	mg/kg
FLUORANTHENE	0.17	mg/kg	0.12	mg/kg
PYRENE	ND		0.50	mg/kg
BENZO(A)ANTHRACENE	0.056	mg/kg	0.046	mg/kg
CHRYSENE	ND		0.071	mg/kg
BENZO(B)FLUORANTHENE	ND		0.080	mg/kg
BENZO(K)FLUORANTHENE	ND		0.022	mg/kg
BENZO(A)PYRENE	ND		0.035	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.074	mg/kg
BENZO(GHI)PERYLENE	ND		0.085	mg/kg
INDENO(123CD)PYRENE	ND		0.29	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO SMPLNO-ID	RESULTS		DET.LIM	
46293 P207X01.5				
PHENANTHRENE	0.24	mg/kg	0.054	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	0.150	mg/kg	0.0029	mg/kg
PYRENE	0.296	mg/kg	0.012	mg/kg
BENZO(A)ANTHRACENE	0.13	mg/kg	0.0012	mg/kg
CHRYSENE	0.0043	mg/kg	0.0018	mg/kg
BENZO(B)FLUORANTHENE	0.087	mg/kg	0.0020	mg/kg
BENZO(K)FLUORANTHENE	0.033	mg/kg	0.00054	mg/kg
BENZO(A)PYRENE	0.083	mg/kg	0.00087	mg/kg
DIBENZ(AH)ANTHRACENE	0.069	mg/kg	0.0019	mg/kg
BENZO(GHI)PERYLENE	ND		0.0021	mg/kg
INDENO(123CD)PYRENE	0.110	mg/kg	0.0073	mg/kg
46298 MW25X0.00				
PHENANTHRENE	0.035	mg/kg	0.022	mg/kg
ANTHRACENE	ND		0.048	mg/kg
FLUORANTHENE	0.0021	mg/kg	0.0012	mg/kg
PYRENE	ND		0.0050	mg/kg
BENZO(A)ANTHRACENE	ND		0.00046	mg/kg
CHRYSENE	ND		0.00071	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00080	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00022	mg/kg
BENZO(A)PYRENE	0.0011	mg/kg	0.00035	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00074	mg/kg
BENZO(GHI)PERYLENE	0.0069	mg/kg	0.00085	mg/kg
INDENO(123CD)PYRENE	ND		0.0029	mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

RECEIVED

DAMES & MOORE

AMMENDED REPORT

Fill UPRR SACTO Phase 2

ACCUTEST ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-40

Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Pro:

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616
Date Collected: 08/05/89
Date Received: 08/08/89
Date Analyzed: 08/11/89
Date Reported: 10/19/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46283	P209X04.5	TPH	2,330	30
46284	P208X02.0	TPH	2,450	30
46285	P208X03.5	TPH	452.0	6
46286	P208X04.0	TPH	532.0	6
46287	P205X01.0	TPH	ND	6
46290	P204X01.0	TPH	ND	6
46291	P204X01.5	TPH	ND	6
46293	P207X01.5	TPH	ND	6
46298	MW25X00.0	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616
Date Collected: 08/05/89 Date Received: 08/08/89
Date Analyzed: 08/17/89 Date Reported: 10/19/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46268	P186X00.0	AS	12.9	500	0.58
		PB	3,640	1,000 *	135
		CU	263	2,500	0.39
46269	P187X00.0	AS	15.2	500	0.60
		PB	431	1,000	1.4
		CU	226	2,500	0.40
46270	P189X00.0	AS	54.5	500	3.0
		PB	461	1,000	1.4
		CU	290	2,500	0.40
		SB	14	500	9.9
46271	P190X00.0	AS	45.8	500	3.0
		PB	512	1,000	1.4
		CU	520	2,500	3.9
		SB	9.9	500	9.9
46272	P191X00.0	AS	27	500	2.9
		PB	273	1,000	1.4
		CU	245	2,500	0.39
		SB	ND	500	9.8

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Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46273	P193X00.0	AS	54.5	500	3.0
		PB	479	1,000	1.4
		CU	154	2,500	0.40
46274	P194X00.0	AS	55.6	500	3.0
		PB	204	1,000	1.4
		CU	196	2,500	0.40
46275	P195X00.0	AS	33.8	500	3.0
		PB	184	1,000	1.4
		CU	128	2,500	0.40
46276	P196X00.0	AS	54.8	500	3.0
		PB	157	1,000	1.4
		CU	87.4	2,500	0.40
46277	P197X00.0	AS	38.4	500	3.0
		PB	216	1,000	1.4
		CU	114	2,500	0.40
46278	P198X00.0	AS	29	500	3.0
		PB	238	1,000	1.4
		CU	232	2,500	0.40
46279	P199X00.0	AS	24	500	3.0
		PB	148	1,000	1.4
		CU	167	2,500	0.40
46280	P201X00.0	AS	9.50	500	0.60
		PB	36.0	1,000	1.4
		CU	45.2	2,500	0.40
46281	P202X00.0	AS	9.86	500	0.60
		PB	34.8	1,000	1.4
		CU	44.0	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46282	P203X00.0	AS	9.86	500	0.60
		PB	96.0	1,000	1.4
		CU	68.8	2,500	0.40
46283	P209X04.5	AS	138	500	6.0
		PB	1,540	1,000 *	28
		CU	620	2,500	8.0
46284	P208X02.0	AS	49.4	500	3.0
		PB	8,800	1,000 *	140
		CU	1,240	2,500	8.0
46285	P208X03.5	AS	59.2	500	3.0
		PB	560	1,000	1.4
		CU	101	2,500	0.40
46286	P208X04.0	AS	56.6	500	3.0
		PB	496	1,000	1.4
		CU	155	2,500	0.40
46287	P205X01.0	AS	8.78	500	0.60
		PB	31.8	1,000	1.4
		CU	35.2	2,500	0.40
46288	P205X00.0	AS	35.8	500	3.0
		PB	510	1,000	1.4
		CU	316	2,500	0.40
46289	P204X00.0	AS	52.0	500	3.0
		PB	696	1,000	14
		CU	388	2,500	0.40
46290	P204X01.0	AS	40.2	500	3.0
		PB	456	1,000	14
		CU	39.8	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46291	P204X01.5	AS	9.68	500	0.60
		PB	15.2	1,000	1.4
		CU	28.6	2,500	0.40
46292	P207X00.0	AS	67.4	500	3.0
		PB	956	1,000	1.4
		CU	400	2,500	0.40
46293	P207X01.5	AS	11.7	500	0.60
		PB	654	1,000	14
		CU	189	2,500	0.40
46294	P206X00.0	AS	38.4	500	3.0
		PB	850	1,000	1.4
		CU	312	2,500	0.40
46295	P207X03.0	AS	10.8	500	0.60
		PB	173	1,000	1.4
		CU	104	2,500	0.40
46296	P206X03.0	AS	8.78	500	0.60
		PB	22.6	1,000	1.4
		CU	51.6	2,500	0.40
46297	P219X06.5	AS	10.2	500	0.60
		PB	13	1,000	1.4
		CU	24.4	2,500	0.40
46298	MW25X00.0	AS	47.6	500	3.0
		PB	107	1,000	1.4
		CU	32.0	2,500	0.40
46299	MW25FD0.0	AS	11.7	500	0.60
		PB	104	1,000	1.4
		CU	67.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46300	MW25Y00.0	AS	12.0	500	0.60
		PB	101	1,000	1.4
		CU	73.0	2,500	0.40
46301	MW25MD0.0	AS	10.6	500	0.60
		PB	78.8	1,000	1.4
		CU	58.2	2,500	0.40
46302	MW25B03.0	AS	10.2	500	0.60
		PB	17.4	1,000	1.4
		CU	27.4	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616
Date Collected: 08/05/89
Date Received: 08/08/89
Date Analyzed: 08/17/89
Date Reported: 10/19/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	46298	DET.
	SMP#	MW25XOO.O	LIM.
PURGEABLES		ug/kg	
BENZENE		ND	2.5
BROMODICHLOROMETHANE		ND	2.5
BROMOFORM		ND	2.5
BROMOMETHANE		ND	2.5
ARBON TETRACHLORIDE		ND	2.5
CHLOROBENZENE		ND	2.5
CHLOROETHANE		ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0
CHLOROFORM		ND	2.5
CHLOROMETHANE		ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5
1,2-DICHLOROBENZENE		ND	2.5
1,3-DICHLOROBENZENE		ND	2.5
1,4-DICHLOROBENZENE		ND	2.5
1,1-DICHLOROETHANE		ND	2.5
1,2-DICHLOROETHANE		ND	2.5
1,1-DICHLOROETHENE		ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5
1,2-DICHLOROPROPANE		ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5
ETHYL BENZENE		ND	2.5
METHYLENE CHLORIDE		ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5
TETRACHLOROETHENE		ND	2.5
TOLUENE		5.2	2.5
1,1,1-TRICHLOROETHANE		ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5
TRICHLOROETHENE		ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

COMPOUNDS:	LAB#	46298	DET.
	SMP#	MW25XOO.O	LIM.
PURGEABLES		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5
VINYL CHLORIDE		ND	5.0
XYLENES		ND	2.5
ACETONE		ND	50.0
2-BUTANONE		ND	5.0
CARBON DISULFIDE		ND	5.0
2-HEXANONE		ND	5.0
4-METHYL-2-PENTANONE		ND	5.0
STYRENE		ND	5.0
VINYL ACETATE		ND	5.0
SURROGATE RECOVERIES-QC			
1,2-DICHLOROETHANE-D4		150	100.0
TOLUENE-D8		94	100.0
4-BROMOFLUOROBENZENE		89	100.0

ND = NO PEAKS DETECTED

ACCUTEST
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L A B O R A T O R Y R E S U L T S

Date Collected: 08/05/89
Date Extracted: 08/14/89
Date Analyzed: 08/14/89

Laboratory Job No.: 893616
Date Received: 08/08/89
Date Reported: 10/19/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46287 P205X01.0 GASOLINE	ND	1.0 mg/kg
46290 P204X01.0 GASOLINE	ND	1.0 mg/kg
46291 P204X01.5 GASOLINE	ND	1.0 mg/kg
46293 P207X01.5 GASOLINE	ND	1.0 mg/kg
46298 MW25X00.0 GASOLINE	ND	1.0 mg/kg
46299 MW25FD0.0 GASOLINE	ND	1.0 mg/kg
46300 MW25Y00.0 GASOLINE	ND	1.0 mg/kg
46301 MW25MD0.0 GASOLINE	ND	1.0 mg/kg
46302 MW25B03.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/05/89
Date Extracted: 08/16/89
Date Analyzed: 09/14/89

Laboratory Job No.: 893616
Date Received: 08/08/89
Date Reported: 10/19/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46283 P209X04.5		
NAPHTHALENE	ND	6.9 mg/kg
ACENAPHTHYLENE	ND	9.9 mg/kg
ACENAPHTHENE	ND	14.0 mg/kg
FLUORENE	ND	1.5 mg/kg
46284 P208X02.0		
NAPHTHALENE	ND	6.9 mg/kg
ACENAPHTHYLENE	ND	9.9 mg/kg
ACENAPHTHENE	ND	14.0 mg/kg
FLUORENE	ND	1.5 mg/kg
46285 P208X03.5		
NAPHTHALENE	ND	1.4 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.30 mg/kg
46286 P208X04.0		
NAPHTHALENE	ND	6.9 mg/kg
ACENAPHTHYLENE	ND	9.9 mg/kg
ACENAPHTHENE	ND	14.0 mg/kg
FLUORENE	ND	1.5 mg/kg
46293 P207X01.5		
NAPHTHALENE	ND	0.17 mg/kg
ACENAPHTHYLENE	0.98 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	ND	0.037 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893616

LABNO SMPLNO-ID	RESULTS	DET.LIM
46298 MW25X00.0		
NAPHTHALENE	ND	0.069 mg/kg
ACENAPHTHYLENE	ND	0.099 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.015 mg/kg
46283 P209X04.5		
PHENANTHRENE	ND	2.2 mg/kg
ANTHRACENE	ND	4.8 mg/kg
FLUORANTHENE	ND	0.12 mg/kg
PYRENE	ND	0.50 mg/kg
BENZO(A)ANTHRACENE	ND	0.046 mg/kg
CHRYSENE	ND	0.071 mg/kg
BENZO(B)FLUORANTHENE	ND	0.080 mg/kg
BENZO(K)FLUORANTHENE	ND	0.022 mg/kg
BENZO(A)PYRENE	ND	0.035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.074 mg/kg
BENZO(GHI)PERYLENE	ND	0.085 mg/kg
INDENO(123CD)PYRENE	ND	0.29 mg/kg
46284 P208X02.0		
PHENANTHRENE	ND	2.2 mg/kg
ANTHRACENE	ND	4.8 mg/kg
FLUORANTHENE	0.28 mg/kg	0.12 mg/kg
PYRENE	ND	0.50 mg/kg
BENZO(A)ANTHRACENE	0.053 mg/kg	0.046 mg/kg
CHRYSENE	ND	0.071 mg/kg
BENZO(B)FLUORANTHENE	ND	0.080 mg/kg
BENZO(K)FLUORANTHENE	0.047 mg/kg	0.022 mg/kg
BENZO(A)PYRENE	0.088 mg/kg	0.035 mg/kg
DIBENZ(AH)ANTHRACENE	0.24 mg/kg	0.074 mg/kg
BENZO(GHI)PERYLENE	ND	0.085 mg/kg
INDENO(123CD)PYRENE	ND	0.29 mg/kg

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Laboratory Job No.: 893616

LABNO SMPLNO-ID	RESULTS	DET.LIM
46285 P208X03.5		
PHENANTHRENE	ND	0.43 mg/kg
ANTHRACENE	ND	0.96 mg/kg
FLUORANTHENE	0.054 mg/kg	0.023 mg/kg
PYRENE	ND	0.10 mg/kg
BENZO(A)ANTHRACENE	0.014 mg/kg	0.0093 mg/kg
CHRYSENE	ND	0.014 mg/kg
BENZO(B)FLUORANTHENE	ND	0.016 mg/kg
BENZO(K)FLUORANTHENE	0.0048 mg/kg	0.0043 mg/kg
BENZO(A)PYRENE	0.021 mg/kg	0.0070 mg/kg
DIBENZ(AH)ANTHRACENE	0.023 mg/kg	0.015 mg/kg
BENZO(GHI)PERYLENE	ND	0.017 mg/kg
INDENO(123CD)PYRENE	ND	0.058 mg/kg
46286 P208X04.0		
PHENANTHRENE	ND	2.2 mg/kg
ANTHRACENE	ND	4.8 mg/kg
FLUORANTHENE	0.17 mg/kg	0.12 mg/kg
PYRENE	ND	0.50 mg/kg
BENZO(A)ANTHRACENE	0.056 mg/kg	0.046 mg/kg
CHRYSENE	ND	0.071 mg/kg
BENZO(B)FLUORANTHENE	ND	0.080 mg/kg
BENZO(K)FLUORANTHENE	ND	0.022 mg/kg
BENZO(A)PYRENE	ND	0.035 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.074 mg/kg
BENZO(GHI)PERYLENE	ND	0.085 mg/kg
INDENO(123CD)PYRENE	ND	0.29 mg/kg

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Laboratory Job No.: 893616

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
46293	P207X01.5				
	PHENANTHRENE	0.24	mg/kg	0.054	mg/kg
	ANTHRACENE	ND		0.12	mg/kg
	FLUORANTHENE	0.150	mg/kg	0.0029	mg/kg
	PYRENE	0.296	mg/kg	0.012	mg/kg
	BENZO(A)ANTHRACENE	0.13	mg/kg	0.0012	mg/kg
	CHRYSENE	0.0043	mg/kg	0.0018	mg/kg
	BENZO(B)FLUORANTHENE	0.087	mg/kg	0.0020	mg/kg
	BENZO(K)FLUORANTHENE	0.033	mg/kg	0.00054	mg/kg
	BENZO(A)PYRENE	0.083	mg/kg	0.00087	mg/kg
	DIBENZ(AH)ANTHRACENE	0.069	mg/kg	0.0019	mg/kg
	BENZO(GHI)PERYLENE	ND		0.0021	mg/kg
	INDENO(123CD)PYRENE	0.110	mg/kg	0.0073	mg/kg
46298	MW25X0.00				
	PHENANTHRENE	0.035	mg/kg	0.022	mg/kg
	ANTHRACENE	ND		0.048	mg/kg
	FLUORANTHENE	0.0021	mg/kg	0.0012	mg/kg
	PYRENE	ND		0.0050	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00046	mg/kg
	CHRYSENE	ND		0.00071	mg/kg
	BENZO(B)FLUORANTHENE	ND		0.00080	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00022	mg/kg
	BENZO(A)PYRENE	0.0011	mg/kg	0.00035	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00074	mg/kg
	BENZO(GHI)PERYLENE	0.0069	mg/kg	0.00085	mg/kg
	INDENO(123CD)PYRENE	ND		0.0029	mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

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Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893621
Date Collected: 08/07/89
Date Received: 08/09/89
Date Analyzed: 08/16/89
Date Reported: 09/26/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46324	P218X05.5	TPH	1,820	240
46325	P218X07.5	TPH	26,300	1,200
46326	P218X11.0	TPH	13,600	480
46329	P214X01.0	TPH	284.0	6
46330	P214X01.5	TPH	ND	6
46334	P215X01.5	TPH	1,400	240
46335	P215X03.0	TPH	ND	6
46336	P215X04.5	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893621
Date Collected: 08/07/89
Date Received: 08/09/89
Date Analyzed: 08/15/89
Date Reported: 09/26/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
46330	P214X01.5 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	113	mg/kg	10,000	0.20	mg/kg
	BE	0.28	mg/kg	75	0.20	mg/kg
	CD	4.75	mg/kg	100	0.098	mg/kg
	CO	14.2	mg/kg	8,000	0.39	mg/kg
	CR	44.2	mg/kg	2,500	0.39	mg/kg
	CU	24.3	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	36.4	mg/kg	2,000	0.98	mg/kg
	PB	11.0	mg/kg	1,000	0.98	mg/kg
	SB	ND		500	9.8	mg/kg
	TL	ND		700	3.9	mg/kg
	V	50.3	mg/kg	2,400	0.39	mg/kg
	ZN	41.3	mg/kg	5,000	0.20	mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893621
Date Collected: 08/07/89 Date Received: 08/09/89
Date Analyzed: 08/17/89 Date Reported: 09/26/89

ARSENIC IN WASTE BY AA-GF 7060)
MERCURY (AA FLAMELESS EPA 7470)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
SELENIUM IN WASTE BY AA-G 7740)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46324	P218X05.5	AS	12.0	500	0.60
		CU	416	2,500	0.40
		PB	510	1,000	1.4
46325	P218X07.5	AS	6.96	500	0.60
		CU	78.6	2,500	0.40
		PB	692	1,000	1.4
46326	P218X11.0	AS	6.96	500	0.60
		CU	22.2	2,500	0.40
		PB	18.2	1,000	1.4
46327	P214X00.0	AS	39.8	500	3.0
		CU	368	2,500	0.40
		PB	3,220	1,000 *	13
46328	P215X00.0	AS	9.14	500	0.60
		CU	141	2,500	0.40
		PB	486	1,000	1.4
46329	P214X01.0	AS	7.86	500	0.60
		CU	136	2,500	0.40
		PB	846	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893621

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46330	P214X01.5	AS	8.24	500	0.60
		HG	ND	20	0.040
		SE	ND	100	0.60
46331	P214X01.5	AS	5.1	500	0.60
		CU	21.4	2,500	0.40
		PB	13	1,000	1.4
46332	P214FD1.5	AS	5.0	500	0.60
		CU	21.4	2,500	0.40
		PB	11	1,000	1.4
46333	P214MD1.5	AS	5.3	500	0.60
		CU	24.4	2,500	0.40
		PB	16.0	1,000	1.4
46334	P215X01.5	AS	9.50	500	0.60
		CU	44.0	2,500	0.40
		PB	116	1,000	1.4
46335	P215X03.0	AS	7.32	500	0.60
		CU	17.2	2,500	0.40
		PB	9.4	1,000	1.4
46336	P215X04.5	AS	7.50	500	0.60
		CU	18.6	2,500	0.40
		PB	16.4	1,000	1.4
46337	P225X00.0	AS	131	500	6.0
		CU	115	2,500	0.40
		PB	1,680	1,000 *	14
46338	P225X01.0	AS	8.42	500	0.60
		CU	19.2	2,500	0.40
		PB	17.6	1,000	1.4

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/07/89
Date Extracted: 08/14/89
Date Analyzed: 08/14/89

Laboratory Job No.: 893621
Date Received: 08/09/89
Date Reported: 09/26/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46324 P218X05.5 GASOLINE	ND	1.0 mg/kg
46325 P218X07.5 GASOLINE	1.3 mg/kg	1.0 mg/kg
46326 P218X11.0 GASOLINE	3.6 mg/kg	1.0 mg/kg
46329 P214X01.0 GASOLINE	ND	1.0 mg/kg
46330 P214X01.5 GASOLINE	ND	1.0 mg/kg
46334 P215X01.5 GASOLINE	2.2 mg/kg	1.0 mg/kg
46335 P215X03.0 GASOLINE	ND	1.0 mg/kg
46336 P215X04.5 GASOLINE	ND	1.0 mg/kg

* SAMPLE DELIVERED IN PLASTIC CONTAINER.
ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/07/89
Date Extracted: 08/16/89
Date Analyzed: 09/14/89

Laboratory Job No.: 893621
Date Received: 08/09/89
Date Reported: 09/26/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46325 P218X07.5		
NAPHTHALENE	ND	2.6 mg/kg
ACENAPHTHYLENE	ND	3.9 mg/kg
ACENAPHTHENE	ND	5.5 mg/kg
FLUORENE	ND	0.57 mg/kg
46330 P214X01.5		
NAPHTHALENE	ND	0.066 mg/kg
ACENAPHTHYLENE	ND	0.098 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.014 mg/kg
46334 P215X01.5		
NAPHTHALENE	ND	1.3 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.29 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893621

LABNO SMPLNO-ID	RESULTS		DET.LIM	
46325 P218X07.5				
PHENANTHRENE	1.1	mg/kg	0.77	mg/kg
ANTHRACENE	ND		1.8	mg/kg
FLUORANTHENE	0.15	mg/kg	0.044	mg/kg
PYRENE	0.28	mg/kg	0.12	mg/kg
BENZO(A)ANTHRACENE	0.113	mg/kg	0.017	mg/kg
CHRYSENE	ND		0.27	mg/kg
BENZO(B)FLUORANTHENE	0.10	mg/kg	0.029	mg/kg
BENZO(K)FLUORANTHENE	0.026	mg/kg	0.0083	mg/kg
BENZO(A)PYRENE	0.060	mg/kg	0.012	mg/kg
DIBENZ(AH)ANTHRACENE	0.039	mg/kg	0.027	mg/kg
BENZO(GHI)PERYLENE	0.136	mg/kg	0.026	mg/kg
INDENO(123CD)PYRENE	0.37	mg/kg	0.11	mg/kg
46330 P214X01.5				
PHENANTHRENE	ND		0.019	mg/kg
ANTHRACENE	ND		0.045	mg/kg
FLUORANTHENE	ND		0.0011	mg/kg
PYRENE	ND		0.0031	mg/kg
BENZO(A)ANTHRACENE	ND		0.00043	mg/kg
CHRYSENE	ND		0.0067	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00073	mg/kg
BENZO(K)FLUORANTHENE	0.00037	mg/kg	0.00021	mg/kg
BENZO(A)PYRENE	ND		0.00031	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00068	mg/kg
BENZO(GHI)PERYLENE	ND		0.00065	mg/kg
INDENO(123CD)PYRENE	ND		0.0029	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893621

LABNO SMPLNO-ID	RESULTS		DET.LIM	
46334 P215XO1.5				
PHENANTHRENE	0.40	mg/kg	0.38	mg/kg
ANTHRACENE	ND		0.90	mg/kg
FLUORANTHENE	0.311	mg/kg	0.022	mg/kg
PYRENE	1.00	mg/kg	0.062	mg/kg
BENZO(A)ANTHRACENE	0.165	mg/kg	0.0086	mg/kg
CHRYSENE	0.464	mg/kg	0.13	mg/kg
BENZO(B)FLUORANTHENE	0.026	mg/kg	0.015	mg/kg
BENZO(K)FLUORANTHENE	0.0645	mg/kg	0.0042	mg/kg
BENZO(A)PYRENE	0.192	mg/kg	0.0061	mg/kg
DIBENZ(AH)ANTHRACENE	0.015	mg/kg	0.014	mg/kg
BENZO(GHI)PERYLENE	0.027	mg/kg	0.013	mg/kg
INDENO(123CD)PYRENE	0.903	mg/kg	0.057	mg/kg

NOTE:TWO SETS OF RESULTS ARE PRESENTED FOR EACH SAMPLE BECAUSE TWO DIFFERENT DETECTORS ARE USED FOR THE ANALYSIS.

ANALYST:TIM AOKI

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893620
Date Collected: 08/08/89
Date Received: 08/09/89
Date Analyzed: 08/16/89
Date Reported: 08/22/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46322	MW11B-20.0	TPH	ND	6
46323	MW11B-25.0	TPH	ND	6

ANALYST:JAN TOISTER

RECEIVED
AUG 2 = 1989
DAMES & MOORE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893620
Date Collected: 08/08/89
Date Received: 08/09/89
Date Analyzed: 08/17/89
Date Reported: 08/22/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46319	MW11B-01.5	AS	8.42	500	0.60
		PB	16.2	1,000	1.4
		CU	19.6	2,500	0.40
46320	MW11B-10.0	AS	8.42	500	0.60
		PB	12	1,000	1.4
		CU	30.6	2,500	0.40
46321	MW11B-15.0	AS	8.24	500	0.60
		PB	21.6	1,000	1.4
		CU	20.8	2,500	0.40
46322	MW11B-20.0	AS	8.42	500	0.60
		PB	11	1,000	1.4
		CU	22.0	2,500	0.40
46323	MW11B-25.0	AS	8.06	500	0.60
		PB	11	1,000	1.4
		CU	31.8	2,500	0.40

ANALYST:PRECY ROBINSON

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/08/89
Date Extracted: 08/15/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893620
Date Received: 08/09/89
Date Reported: 08/22/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
46320	MW11B-10.0		
	GASOLINE	ND	1.0 mg/kg
46321	MW11B-15.0		
	GASOLINE	ND	1.0 mg/kg
46322	MW11B-20.0		
	GASOLINE	ND	1.0 mg/kg
46323	MW11B-25.0		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893631
Date Collected: 08/07/89
Date Received: 08/10/89
Date Analyzed: 08/16/89
Date Reported: 08/22/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46512	P219X06.0	TPH	ND	6
46513	P214X03.5	TPH	31	6

ANALYST:JAN TOISTER

RECEIVED
AUG 2 - 1989
DAMES & MOORE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893631
Date Collected: 08/07/89
Date Received: 08/10/89
Date Analyzed: 08/21/89
Date Reported: 08/22/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
CADMIUM(AA ASSAY EPA 7130),3050 ACID DIGEST

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46502	P226X00.0	AS	254	500	12
		PB	724	1,000	1.4
		CU	155	2,500	0.40
46503	P227X00.0	AS	248	500	12
		PB	778	1,000	1.4
		CU	104	2,500	0.40
		CD	2.10	100	0.20
46504	P239X00.0	AS	12.4	500	0.60
		PB	87.8	1,000	1.4
		CU	88.6	2,500	0.40
46505	P240X00.0	AS	248	500	12
		PB	474	1,000	1.4
		CU	140	2,500	0.40
46506	P240X01.5	AS	8.24	500	0.60
		PB	14.8	1,000	1.4
		CU	23.2	2,500	0.40
46507	P239X02.0	AS	8.42	500	0.60
		PB	13	1,000	1.4
		CU	24.6	2,500	0.40

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P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893631

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46508	P226X01.0	AS	9.50	500	0.60
		PB	12	1,000	1.4
		CU	17.4	2,500	0.40
46509	P227X01.0	AS	298	500	12
		PB	21.8	1,000	1.4
		CU	58.8	2,500	0.40
		CD	2.56	100	0.20
46510	P253X00.0	AS	8.96	500	0.60
		PB	9.0	1,000	1.4
		CU	57.8	2,500	0.40
46511	P206X01.5	AS	14.2	500	0.60
		PB	1,610	1,000 *	14
		CU	266	2,500	0.40

ANALYST:PRECY ROBINSON

COLAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/07/89
Date Extracted: 08/15/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893631
Date Received: 08/10/89
Date Reported: 08/22/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
46512	P219X06.0 GASOLINE	ND	1.0 mg/kg
46513	P214X03.5 GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

CCL LABS
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89
Date Received: 08/11/89
Date Analyzed: 08/15/89
Date Reported: 10/19/89

TOTAL CHROMIUM HEXAVALENT(DIGEST+COLOR ASSAY,EPA3060/7196)

MATRIX:SOIL TOTAL DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46713	P242X00.0	CR6	ND	500	1.00
46714	P243X00.0	CR6	ND	500	1.00
74716	P242X02.0	CR6	ND	500	1.00
46719	P243Y01.0	CR6	ND	500	1.00

NOTE:THIS IS AN AMENDED REPORT.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89 Date Received: 08/11/89
Date Analyzed: 08/16/89 Date Reported: 10/19/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46708	P252X01.5	TPH	1,110	240
46709	P252X02.0	TPH	211	24
46710	P253X01.0	TPH	ND	6
46711	P253X01.5	TPH	ND	6
46715	P242X01.0	TPH	464.0	24
46716	P242X02.0	TPH	ND	6
46717	P242X04.0	TPH	ND	6
46718	P243X01.0	TPH	ND	6
46722	P243X02.0	TPH	111	24
46723	P243X03.0	TPH	ND	6
46724	P243X05.0	TPH	ND	6

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89
Date Received: 08/11/89
Date Analyzed: 08/17/89
Date Reported: 10/19/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46708	P252X01.5	AS	9.50	500	0.60
		PB	226	1,000	1.4
		CU	191	2,500	0.53
46709	P252X02.0	AS	8.78	500	0.60
		PB	89.8	1,000	1.4
		CU	99.4	2,500	0.53
46710	P253X01.0	AS	8.42	500	0.60
		PB	16.8	1,000	1.4
		CU	36.0	2,500	0.53
46711	P253X01.5	AS	8.60	500	0.60
		PB	11	1,000	1.4
		CU	29.0	2,500	0.53
46712	P252X00.0	AS	9.14	500	0.60
		PB	184	1,000	1.4
		CU	1,740	2,500	11
46713	P242X00.0	AS	13.8	500	0.60
		SE	ND	100	0.60
		HG	0.15	20	0.040

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Laboratory Job No.: 893661

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46714	P243X00.0	AS	13.3	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040
46715	P242X01.0	AS	22	500	3.0
		PB	3,120	1,000 *	145
		CU	3,800	2,500 *	11
46716	P242X02.0	AS	12.4	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
46717	P242X04.0	AS	9.14	500	0.60
		PB	10,400	1,000 *	145
		CU	548	2,500	2.6
46718	P243X01.0	AS	7.50	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
46719	P243Y01.0	AS	8.42	500	0.60
		PB	48.6	1,000	1.4
		CU	57.2	2,500	0.53
46720	P243FD1.0	AS	8.42	500	0.60
		PB	40.0	1,000	1.4
		CU	50.4	2,500	0.53
46721	P243MD1.0	AS	7.86	500	0.60
		PB	37.6	1,000	1.4
		CU	49.4	2,500	0.53
46722	P243X02.0	AS	8.60	500	0.60
		PB	37.8	1,000	1.4
		CU	37.8	2,500	0.53

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Laboratory Job No.: 893661

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46723	P243X03.0	AS	8.96	500	0.60
		PB	9.4	1,000	1.4
		CU	31.2	2,500	0.53
46724	P243X05.0	AS	8.78	500	0.60
		PB	5.0	1,000	1.4
		CU	34.6	2,500	0.53

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89 — Date Received: 08/11/89
Date Analyzed: 08/15/89 — Date Reported: 10/19/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.
46713	P242X00.0	SOIL		CA TTLC		
	AG		0.49 mg/kg	500		0.20 mg/kg
	BA		221 mg/kg	10,000		0.20 mg/kg
	BE		0.28 mg/kg	75		0.20 mg/kg
	CD		5.52 mg/kg	100		0.099 mg/kg
	CO		11.4 mg/kg	8,000		0.40 mg/kg
	CR		46.2 mg/kg	2,500		0.40 mg/kg
	CU		1,000 mg/kg	2,500		0.20 mg/kg
	MO		ND	3,500		0.40 mg/kg
	NI		81.3 mg/kg	2,000		0.99 mg/kg
	PB		1,100 mg/kg	1,000	*	0.99 mg/kg
	SB		ND	500		9.9 mg/kg
	TL		ND	700		4.0 mg/kg
	V		44.8 mg/kg	2,400		0.40 mg/kg
	ZN		369 mg/kg	5,000		0.20 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
46714	P243X00.0	SOIL			CA TTLC		
	AG		0.39	mg/kg	500	0.20	mg/kg
	BA		1,010	mg/kg	10,000	0.20	mg/kg
	BE		0.30	mg/kg	75	0.20	mg/kg
	CD		4.13	mg/kg	100	0.100	mg/kg
	CO		9.05	mg/kg	8,000	0.40	mg/kg
	CR		35.9	mg/kg	2,500	0.40	mg/kg
	CU		736	mg/kg	2,500	0.20	mg/kg
	MO		0.68	mg/kg	3,500	0.40	mg/kg
	NI		52.5	mg/kg	2,000	1.00	mg/kg
	PB		3,790	mg/kg	1,000 *	1.00	mg/kg
	SB		78	mg/kg	500	10.0	mg/kg
	TL		ND		700	4.0	mg/kg
	V		43.1	mg/kg	2,400	0.40	mg/kg
	ZN		277	mg/kg	5,000	0.20	mg/kg
46716	P242X02.0	SOIL			CA TTLC		
	AG		ND		500	0.20	mg/kg
	BA		118	mg/kg	10,000	0.20	mg/kg
	BE		0.35	mg/kg	75	0.20	mg/kg
	CD		4.88	mg/kg	100	0.099	mg/kg
	CO		12.9	mg/kg	8,000	0.40	mg/kg
	CR		43.9	mg/kg	2,500	0.40	mg/kg
	CU		99.0	mg/kg	2,500	0.20	mg/kg
	MO		ND		3,500	0.40	mg/kg
	NI		46.3	mg/kg	2,000	0.99	mg/kg
	PB		77.1	mg/kg	1,000	0.99	mg/kg
	SB		ND		500	9.9	mg/kg
	TL		ND		700	4.0	mg/kg
	V		48.3	mg/kg	2,400	0.40	mg/kg
	ZN		74.6	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
46718	P243X01.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	110	mg/kg	10,000	0.20	mg/kg
		BE	0.35	mg/kg	75	0.20	mg/kg
		CD	4.05	mg/kg	100	0.098	mg/kg
		CO	16.2	mg/kg	8,000	0.39	mg/kg
		CR	53.6	mg/kg	2,500	0.39	mg/kg
		CU	46.3	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.39	mg/kg
		NI	51.7	mg/kg	2,000	0.98	mg/kg
		PB	29.7	mg/kg	1,000	0.98	mg/kg
		SB	ND		500	9.8	mg/kg
		TL	ND		700	3.9	mg/kg
		V	60.4	mg/kg	2,400	0.39	mg/kg
		ZN	86.0	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89 Date Received: 08/11/89
Date Analyzed: 08/17/89 Date Reported: 10/19/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
46714	P243X00.0	SOIL	TRACE	CHRYSOTILE	90	QUARTZ
			TRACE	CROCIDOLITE	10	ORGANIC MATERIAL
46722	P243X02.0	SOIL	TRACE	CHRYSOTILE	60	QUARTZ
					25	CLAY
					10	CHARCOAL
					5	CELLULOSE FIBERS
46723	P243X03.0	SOIL	NONE DETECTED		50	QUARTZ
					50	CLAY
46724	P243X05.0	SOIL	NONE DETECTED		75	QUARTZ
					25	CLAY
46725	P242X01.5	SOIL	3	CHRYSOTILE*	62	CORRODED METAL
			TRACE	AMOSITE	35	QUARTZ

NOTES: 1. ASBESTOS VALUES MARKED WITH * ARE +/- 2%.

2. TRACE = 0.1% TO 1%.

for Olivia G. Alejandro
ANALYST:MIKE GRAY

ACCUTEST
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 08/09/89
Date Extracted: 08/11/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893661
Date Received: 08/11/89
Date Reported: 10/19/89

ASSAY:PCBS IN SOIL/WASTE (GC/ECD EPA 8080)
MATRIX:SOIL

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
46708	P252X01.5				
PCBs		7.84	ug/gm	0.75	ug/gm
46709	P252X02.0				
PCBs		0.760	ug/gm	0.075	ug/gm
46710	P253X01.0				
PCBs		0.0542	ug/gm	0.015	ug/gm
46711	P253X01.5				
PCBs		0.105	ug/gm	0.015	ug/gm

RESULTS WERE QUANTITATED AGAINST AROCHLORS 1242,1254 AND1260.

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/09/89
Date Extracted: 08/15/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893661
Date Received: 08/11/89
Date Reported: 10/19/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46715 P242X01.0 GASOLINE	ND	1.0 mg/kg
46716 P242X02.0 GASOLINE	ND	1.0 mg/kg
46717 P242X04.0 GASOLINE	ND	1.0 mg/kg
46718 P243X01.0 GASOLINE	ND	1.0 mg/kg
46722 P243X02.0 GASOLINE	ND	1.0 mg/kg
46723 P243X03.0 GASOLINE	ND	1.0 mg/kg
46724 P243X05.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/09/89
Date Extracted: 08/16/89
Date Analyzed: 09/14/89

Laboratory Job No.: 893661
Date Received: 08/11/89
Date Reported: 10/19/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46715 P242X01.0		
NAPHTHALENE	1.5 mg/kg	1.4 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.30 mg/kg
46718 P243X01.0		
NAPHTHALENE	ND	0.17 mg/kg
ACENAPHTHYLENE	0.50 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	ND	0.037 mg/kg
46722 P243X02.0		
NAPHTHALENE	ND	0.17 mg/kg
ACENAPHTHYLENE	0.50 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	ND	0.037 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO SMPLNO-ID	RESULTS		DET.LIM	
46715 P242X01.0				
PHENANTHRENE	ND		0.43	mg/kg
ANTHRACENE	ND		0.96	mg/kg
FLUORANTHENE	0.464	mg/kg	0.023	mg/kg
PYRENE	0.42	mg/kg	0.10	mg/kg
BENZO(A)ANTHRACENE	0.110	mg/kg	0.0093	mg/kg
CHRYSENE	ND		0.014	mg/kg
BENZO(B)FLUORANTHENE	0.080	mg/kg	0.016	mg/kg
BENZO(K)FLUORANTHENE	0.017	mg/kg	0.0043	mg/kg
BENZO(A)PYRENE	0.0751	mg/kg	0.0070	mg/kg
DIBENZ(AH)ANTHRACENE	0.029	mg/kg	0.015	mg/kg
BENZO(GHI)PERYLENE	0.14	mg/kg	0.017	mg/kg
INDENO(123CD)PYRENE	ND		0.058	mg/kg
46718 P243X01.0				
PHENANTHRENE	ND		0.054	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	0.0045	mg/kg	0.0029	mg/kg
PYRENE	ND		0.012	mg/kg
BENZO(A)ANTHRACENE	0.0062	mg/kg	0.0012	mg/kg
CHRYSENE	ND		0.0018	mg/kg
BENZO(B)FLUORANTHENE	0.013	mg/kg	0.0020	mg/kg
BENZO(K)FLUORANTHENE	0.00761	mg/kg	0.00054	mg/kg
BENZO(A)PYRENE	0.0164	mg/kg	0.00087	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.0019	mg/kg
BENZO(GHI)PERYLENE	0.0808	mg/kg	0.0021	mg/kg
INDENO(123CD)PYRENE	0.038	mg/kg	0.0073	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
46722	P243X02.0				
	PHENANTHRENE	ND		0.054	mg/kg
	ANTHRACENE	ND		0.12	mg/kg
	FLUORANTHENE	0.014	mg/kg	0.0029	mg/kg
	PYRENE	0.019	mg/kg	0.012	mg/kg
	BENZO(A)ANTHRACENE	0.0121	mg/kg	0.0012	mg/kg
	CHRYSENE	ND		0.0018	mg/kg
	BENZO(B)FLUORANTHENE	0.0076	mg/kg	0.0020	mg/kg
	BENZO(K)FLUORANTHENE	0.0044	mg/kg	0.00054	mg/kg
	BENZO(A)PYRENE	0.0124	mg/kg	0.00087	mg/kg
	)IBENZ(AH)ANTHRACENE	ND		0.0019	mg/kg
	BENZO(GHI)PERYLENE	0.0433	mg/kg	0.0021	mg/kg
	INDENO(123CD)PYRENE	0.010	mg/kg	0.0073	mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO SETS OF DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

AMENDED REPORT

PG. 4 - 8015(GAS) FOR MW13B04.5 Correct Value

ACCUTEST
ENVIRONMENTAL SERVICES
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Suite 100

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893774
Date Collected: 08/15/89
Date Received: 08/17/89
Date Analyzed: 08/28/89
Date Reported: 09/27/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47655	MW13B01.5	TPH	808	6
47656	MW13B03.0	TPH	1,980	30
47657	MW13B04.5	TPH	1,070	6
47658	MW13B06.0	TPH	ND	6
47659	MW13X28.0	TPH	ND	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893774
Date Collected: 08/15/89 Date Received: 08/17/89
Date Analyzed: 08/29/89 Date Reported: 09/27/89

ARSENIC IN WASTE BY AA-GF 7060)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47654	MW13B00.0	AS	3.3	500	0.60
		PB	13	1,000	1.4
		CU	7.80	2,500	0.40
47655	MW13B01.5	AS	6.90	500	0.60
		PB	12	1,000	1.4
		CU	22.4	2,500	0.40
47656	MW13B03.0	AS	6.72	500	0.60
		PB	11	1,000	1.4
		CU	28.0	2,500	0.40
47657	MW13B04.5	AS	6.90	500	0.60
		PB	13	1,000	1.4
		CU	28.8	2,500	0.40
47658	MW13B06.0	AS	7.28	500	0.60
		PB	13	1,000	1.4
		CU	30.2	2,500	0.40

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893774

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47659	MW13X28.0	AS	7.28	500	0.60
		PB	9.6	1,000	1.4
		CU	30.6	2,500	0.40

ANALYST:PRECY ROBINSON

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/15/89
Date Extracted: 08/24/89
Date Analyzed: 08/24/89

Laboratory Job No.: 893774
Date Received: 08/17/89
Date Reported: 09/27/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
47655	MW13B01.5		
	GASOLINE	470 mg/kg	1.3 mg/kg
47656	MW13B03.0		
	GASOLINE	1,700 mg/kg	2.0 mg/kg
47657	MW13B04.5		
	GASOLINE	400 mg/kg	1.0 mg/kg
47658	MW13B06.0		
	GASOLINE	1.2 mg/kg	1.0 mg/kg
47659	MW13X28.0		
	GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/15/89
Date Extracted: 08/30/89
Date Analyzed: 09/21/89

Laboratory Job No.: 893774
Date Received: 08/17/89
Date Reported: 09/27/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

ABNO SMPLNO-ID	RESULTS		DET.LIM	
47656 MW13B03.0				
NAPHTHALENE	0.56	mg/kg	0.069	mg/kg
ACENAPHTHYLENE	0.22	mg/kg	0.099	mg/kg
ACENAPHTHENE	0.24	mg/kg	0.14	mg/kg
FLUORENE	0.328	mg/kg	0.015	mg/kg
47656 MW13B03.0				
PHENANTHRENE	1.31	mg/kg	0.021	mg/kg
ANTHRACENE	0.583	mg/kg	0.048	mg/kg
FLUORANTHENE	ND		0.0012	mg/kg
PYRENE	0.023	mg/kg	0.0041	mg/kg
BENZO(A)ANTHRACENE	0.16	mg/kg	0.00046	mg/kg
CHRYSENE	0.028	mg/kg	0.00067	mg/kg
BENZO(B)FLUORANTHENE	0.050	mg/kg	0.00079	mg/kg
BENZO(K)FLUORANTHENE	0.036	mg/kg	0.00022	mg/kg
BENZO(A)PYRENE	0.052	mg/kg	0.00035	mg/kg
DIBENZ(AH)ANTHRACENE	0.021	mg/kg	0.00075	mg/kg
BENZO(GHI)PERYLENE	0.025	mg/kg	0.00076	mg/kg
INDENO(123CD)PYRENE	0.128	mg/kg	0.0030	mg/kg

ANALYST:TIM AOKI

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89
Date Received: 08/11/89
Date Analyzed: 08/15/89
Date Reported: 10/19/89

TOTAL CHROMIUM HEXAVALENT(DIGEST+COLOR ASSAY,EPA3060/7196)

MATRIX:SOIL TOTAL DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46713	P242X00.0	CR6	ND	500	1.00
46714	P243X00.0	CR6	ND	500	1.00
74716	P242X02.0	CR6	ND	500	1.00
46719	P243X01.0	CR6	ND	500	1.00

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89
Date Received: 08/11/89
Date Analyzed: 08/16/89
Date Reported: 10/19/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
46708	P252X01.5	TPH	1,110	240
46709	P252X02.0	TPH	211	24
46710	P253X01.0	TPH	ND	6
46711	P253X01.5	TPH	ND	6
46715	P242X01.0	TPH	464.0	24
46716	P242X02.0	TPH	ND	6
46717	P242X04.0	TPH	ND	6
46718	P243X01.0	TPH	ND	6
46722	P243X02.0	TPH	111	24
46723	P243X03.0	TPH	ND	6
46724	P243X05.0	TPH	ND	6

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89 Date Received: 08/11/89
Date Analyzed: 08/17/89 Date Reported: 10/19/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46708	P252X01.5	AS	9.50	500	0.60
		PB	226	1,000	1.4
		CU	191	2,500	0.53
46709	P252X02.0	AS	8.78	500	0.60
		PB	89.8	1,000	1.4
		CU	99.4	2,500	0.53
46710	P253X01.0	AS	8.42	500	0.60
		PB	16.8	1,000	1.4
		CU	36.0	2,500	0.53
46711	P253X01.5	AS	8.60	500	0.60
		PB	11	1,000	1.4
		CU	29.0	2,500	0.53
46712	P252X00.0	AS	9.14	500	0.60
		PB	184	1,000	1.4
		CU	1,740	2,500	11
46713	P242X00.0	AS	13.8	500	0.60
		SE	ND	100	0.60
		HG	0.15	20	0.040

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46714	P243X00.0	AS	13.3	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040
46715	P242X01.0	AS	22	500	3.0
		PB	3,120	1,000 *	145
		CU	3,800	2,500 *	11
46716	P242X02.0	AS	12.4	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
46717	P242X04.0	AS	9.14	500	0.60
		PB	10,400	1,000 *	145
		CU	548	2,500	2.6
46718	P243X01.0	AS	7.50	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
46719	P243X01.0	AS	8.42	500	0.60
		PB	48.6	1,000	1.4
		CU	57.2	2,500	0.53
46720	P243F01.0	AS	8.42	500	0.60
		PB	40.0	1,000	1.4
		CU	50.4	2,500	0.53
46721	P243M01.0	AS	7.86	500	0.60
		PB	37.6	1,000	1.4
		CU	49.4	2,500	0.53
46722	P243X02.0	AS	8.60	500	0.60
		PB	37.8	1,000	1.4
		CU	37.8	2,500	0.53

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
46723	P243X03.0	AS	8.96	500	0.60
		PB	9.4	1,000	1.4
		CU	31.2	2,500	0.53
46724	P243X05.0	AS	8.78	500	0.60
		PB	5.0	1,000	1.4
		CU	34.6	2,500	0.53

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89 Date Received: 08/11/89
Date Analyzed: 08/15/89 Date Reported: 10/19/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
46713	P242X00.0	SOIL		CA TTLC			
	AG		0.49 mg/kg	500		0.20	mg/kg
	BA		221 mg/kg	10,000		0.20	mg/kg
	BE		0.28 mg/kg	75		0.20	mg/kg
	CD		5.52 mg/kg	100		0.099	mg/kg
	CO		11.4 mg/kg	8,000		0.40	mg/kg
	CR		46.2 mg/kg	2,500		0.40	mg/kg
	CU		1,000 mg/kg	2,500		0.20	mg/kg
	MO		ND	3,500		0.40	mg/kg
	NI		81.3 mg/kg	2,000		0.99	mg/kg
	PB		1,100 mg/kg	1,000	*	0.99	mg/kg
	SB		ND	500		9.9	mg/kg
	TL		ND	700		4.0	mg/kg
	V		44.8 mg/kg	2,400		0.40	mg/kg
	ZN		369 mg/kg	5,000		0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
46714	P243X00.0	SOIL			CA TTLC		
	AG		0.39	mg/kg	500	0.20	mg/kg
	BA		1,010	mg/kg	10,000	0.20	mg/kg
	BE		0.30	mg/kg	75	0.20	mg/kg
	CD		4.13	mg/kg	100	0.100	mg/kg
	CO		9.05	mg/kg	8,000	0.40	mg/kg
	CR		35.9	mg/kg	2,500	0.40	mg/kg
	CU		736	mg/kg	2,500	0.20	mg/kg
	MO		0.68	mg/kg	3,500	0.40	mg/kg
	NI		52.5	mg/kg	2,000	1.00	mg/kg
	PB		3,790	mg/kg	1,000 *	1.00	mg/kg
	SB		78	mg/kg	500	10.0	mg/kg
	TL		ND		700	4.0	mg/kg
	V		43.1	mg/kg	2,400	0.40	mg/kg
	ZN		277	mg/kg	5,000	0.20	mg/kg
46716	P242X02.0	SOIL			CA TTLC		
	AG		ND		500	0.20	mg/kg
	BA		118	mg/kg	10,000	0.20	mg/kg
	BE		0.35	mg/kg	75	0.20	mg/kg
	CD		4.88	mg/kg	100	0.099	mg/kg
	CO		12.9	mg/kg	8,000	0.40	mg/kg
	CR		43.9	mg/kg	2,500	0.40	mg/kg
	CU		99.0	mg/kg	2,500	0.20	mg/kg
	MO		ND		3,500	0.40	mg/kg
	NI		46.3	mg/kg	2,000	0.99	mg/kg
	PB		77.1	mg/kg	1,000	0.99	mg/kg
	SB		ND		500	9.9	mg/kg
	TL		ND		700	4.0	mg/kg
	V		48.3	mg/kg	2,400	0.40	mg/kg
	ZN		74.6	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
46718	P243X01.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	110	mg/kg	10,000	0.20	mg/kg
		BE	0.35	mg/kg	75	0.20	mg/kg
		CD	4.05	mg/kg	100	0.098	mg/kg
		CO	16.2	mg/kg	8,000	0.39	mg/kg
		CR	53.6	mg/kg	2,500	0.39	mg/kg
		CU	46.3	mg/kg	2,500	0.20	mg/kg
		MO	ND		3,500	0.39	mg/kg
		NI	51.7	mg/kg	2,000	0.98	mg/kg
		PB	29.7	mg/kg	1,000	0.98	mg/kg
		SB	ND		500	9.8	mg/kg
		TL	ND		700	3.9	mg/kg
		V	60.4	mg/kg	2,400	0.39	mg/kg
		ZN	86.0	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661
Date Collected: 08/09/89 Date Received: 08/11/89
Date Analyzed: 08/17/89 Date Reported: 10/19/89

ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER COMPONENTS %	OTHER COMPONENTS TYPE
46714	P243X00.0	SOIL	TRACE	CHRYSOTILE	90	QUARTZ
			TRACE	CROCIDOLITE	10	ORGANIC MATERIAL
46722	P243X02.0	SOIL	TRACE	CHRYSOTILE	60	QUARTZ
					25	CLAY
					10	CHARCOAL
					5	CELLULOSE FIBERS
46723	P243X03.0	SOIL	NONE DETECTED		50	QUARTZ
					50	CLAY
46724	P243X05.0	SOIL	NONE DETECTED		75	QUARTZ
					25	CLAY
46725	P242X01.5	SOIL	3	CHRYSOTILE*	62	CORRODED METAL
			TRACE	AMOSITE	35	QUARTZ

NOTES: 1. ASBESTOS VALUES MARKED WITH * ARE +/- 2%.

2. TRACE = 0.1% TO 1%.

for ANALYST:MIKE GRAY
Olivia M. Alejandro

CCUCAS
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L A B O R A T O R Y R E S U L T S

Date Collected: 08/09/89
Date Extracted: 08/11/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893661
Date Received: 08/11/89
Date Reported: 10/19/89

ASSAY:PCBS IN SOIL/WASTE (GC/ECD EPA 8080)
MATRIX:SOIL

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
46708	P252X01.5				
PCBs		7.84	ug/gm	0.75	ug/gm
46709	P252X02.0				
CBs		0.760	ug/gm	0.075	ug/gm
46710	P253X01.0				
PCBs		0.0542	ug/gm	0.015	ug/gm
46711	P253X01.5				
PCBs		0.105	ug/gm	0.015	ug/gm

RESULTS WERE QUANTITATED AGAINST AROCHLORS 1242,1254 AND1260.

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/09/89
Date Extracted: 08/15/89
Date Analyzed: 08/15/89

Laboratory Job No.: 893661
Date Received: 08/11/89
Date Reported: 10/19/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46715 P242X01.0 GASOLINE	ND	1.0 mg/kg
46716 P242X02.0 GASOLINE	ND	1.0 mg/kg
46717 P242X04.0 GASOLINE	ND	1.0 mg/kg
46718 P243X01.0 GASOLINE	ND	1.0 mg/kg
46722 P243X02.0 GASOLINE	ND	1.0 mg/kg
46723 P243X03.0 GASOLINE	ND	1.0 mg/kg
46724 P243X05.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/09/89
Date Extracted: 08/16/89
Date Analyzed: 09/14/89

Laboratory Job No.: 893661
Date Received: 08/11/89
Date Reported: 10/19/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
46715 P242X01.0		
NAPHTHALENE	1.5 mg/kg	1.4 mg/kg
ACENAPHTHYLENE	ND	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	ND	0.30 mg/kg
46718 P243X01.0		
NAPHTHALENE	ND	0.17 mg/kg
ACENAPHTHYLENE	0.50 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	ND	0.037 mg/kg
46722 P243X02.0		
NAPHTHALENE	ND	0.17 mg/kg
ACENAPHTHYLENE	0.50 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	ND	0.037 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO SMPLNO-ID	RESULTS		DET.LIM	
46715 P242X01.0				
PHENANTHRENE	ND		0.43	mg/kg
ANTHRACENE	ND		0.96	mg/kg
FLUORANTHENE	0.464	mg/kg	0.023	mg/kg
PYRENE	0.42	mg/kg	0.10	mg/kg
BENZO(A)ANTHRACENE	0.110	mg/kg	0.0093	mg/kg
CHRYSENE	ND		0.014	mg/kg
BENZO(B)FLUORANTHENE	0.080	mg/kg	0.016	mg/kg
BENZO(K)FLUORANTHENE	0.017	mg/kg	0.0043	mg/kg
BENZO(A)PYRENE	0.0751	mg/kg	0.0070	mg/kg
DIBENZ(AH)ANTHRACENE	0.029	mg/kg	0.015	mg/kg
BENZO(GHI)PERYLENE	0.14	mg/kg	0.017	mg/kg
INDENO(123CD)PYRENE	ND		0.058	mg/kg
46718 P243X01.0				
PHENANTHRENE	ND		0.054	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	0.0045	mg/kg	0.0029	mg/kg
PYRENE	ND		0.012	mg/kg
BENZO(A)ANTHRACENE	0.0062	mg/kg	0.0012	mg/kg
CHRYSENE	ND		0.0018	mg/kg
BENZO(B)FLUORANTHENE	0.013	mg/kg	0.0020	mg/kg
BENZO(K)FLUORANTHENE	0.00761	mg/kg	0.00054	mg/kg
BENZO(A)PYRENE	0.0164	mg/kg	0.00087	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.0019	mg/kg
BENZO(GHI)PERYLENE	0.0808	mg/kg	0.0021	mg/kg
INDENO(123CD)PYRENE	0.038	mg/kg	0.0073	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893661

LABNO SMPLNO-ID	RESULTS	DET.LIM
46722 P243X02.0		
PHENANTHRENE	ND	0.054 mg/kg
ANTHRACENE	ND	0.12 mg/kg
FLUORANTHENE	0.014 mg/kg	0.0029 mg/kg
PYRENE	0.019 mg/kg	0.012 mg/kg
BENZO(A)ANTHRACENE	0.0121 mg/kg	0.0012 mg/kg
CHRYSENE	ND	0.0018 mg/kg
BENZO(B)FLUORANTHENE	0.0076 mg/kg	0.0020 mg/kg
BENZO(K)FLUORANTHENE	0.0044 mg/kg	0.00054 mg/kg
BENZO(A)PYRENE	0.0124 mg/kg	0.00087 mg/kg
DIBENZ(AH)ANTHRACENE	ND	0.0019 mg/kg
BENZO(GHI)PERYLENE	0.0433 mg/kg	0.0021 mg/kg
INDENO(123CD)PYRENE	0.010 mg/kg	0.0073 mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO SETS OF DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

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1989
DAMES & MOORE

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713
Date Collected: 08/10/89
Date Received: 08/15/89
Date Analyzed: 08/28/89
Date Reported: 10/19/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47118	P245X02.0	TPH	18,400	120
47119	P245X02.5	TPH	ND	6
47120	P245X04.5	TPH	32	6
47121	P244X01.5	TPH	4,400	30
47122	P244X02.0	TPH	39,300	300
47123	P244X02.5	TPH	2,160	30
47124	P244X04.0	TPH	ND	6
47125	P250X00.0	TPH	1,020	6
47126	P250X01.5	TPH	ND	6
47127	P251X00.0	TPH	1,520	30
47128	P251X01.5	TPH	1,040	6

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
47129	P251X03.0	TPH	2,660	30
47130	P251X05.0	TPH	100	6
47131	P251X07.5	TPH	267	6
47132	P249X00.0	TPH	856	6
47137	P247X02.0	TPH	ND	6
47138	P247X04.5	TPH	ND	6
47139	P244X00.0	TPH	2,960	30
47140	P245X00.0	TPH	4,400	30

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713
Date Collected: 08/10/89 Date Received: 08/15/89
Date Analyzed: 08/16/89 Date Reported: 10/19/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID		RESULTS			DET. LIM.	
47132	P249X00.0	SOIL			CA TTLC		
		AG	ND		500	0.20	mg/kg
		BA	189	mg/kg	10,000	0.20	mg/kg
		BE	ND		75	0.20	mg/kg
		CD	2.57	mg/kg	100	0.10	mg/kg
		CO	8.05	mg/kg	8,000	0.40	mg/kg
		CR	23.4	mg/kg	2,500	0.40	mg/kg
		CU	156	mg/kg	2,500	0.20	mg/kg
		MO	12.7	mg/kg	3,500	0.40	mg/kg
		NI	31.5	mg/kg	2,000	1.0	mg/kg
		PB	320	mg/kg	1,000	1.0	mg/kg
		SB	ND		500	10	mg/kg
		TL	ND		700	4.0	mg/kg
		V	25.5	mg/kg	2,400	0.40	mg/kg
		ZN	170	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713
Date Collected: 08/10/89 Date Received: 08/15/89
Date Analyzed: 08/25/89 Date Reported: 10/19/89

ARSENIC IN WASTE BY AA-GF 7060)
COPPER(AA ASSAY EPA 7210),3050 ACID DIGEST
LEAD(AA ASSAY EPA 7420),3050 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3050 ACID DIGEST
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)

MATRIX:SOIL, ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47118	P245X02.0	AS	9.50	500	0.60
		CU	522	2,500	4.0
		PB	468	1,000	1.4
47119	P245X02.5	AS	5.8	500	0.60
		CU	19.4	2,500	0.40
		PB	9.2	1,000	1.4
47120	P245X04.5	AS	5.6	500	0.60
		CU	24.4	2,500	0.40
		PB	11	1,000	1.4
47121	P244X01.5	AS	37.4	500	3.0
		CU	1,010	2,500	8.0
		PB	874	1,000	1.4
47122	P244X02.0	AS	8.76	500	0.60
		CU	522	2,500	2.0
		PB	8,000	1,000 *	140

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47123	P244X02.5	AS	8.02	500	0.60
		CU	57.4	2,500	0.40
		PB	46.2	1,000	1.4
47124	P244X04.0	AS	7.10	500	0.60
		CU	23.4	2,500	0.40
		PB	7.2	1,000	1.4
47125	P250X00.0	AS	11.0	500	0.60
		CU	92.0	2,500	0.40
		PB	246	1,000	1.4
47126	P250X01.5	AS	7.28	500	0.60
		CU	16.2	2,500	0.40
		PB	6.6	1,000	1.4
47127	P251X00.0	AS	11.2	500	0.60
		CU	169	2,500	0.40
		PB	354	1,000	1.4
47128	P251X01.5	AS	8.02	500	0.60
		CU	25.6	2,500	0.40
		PB	24.6	1,000	1.4
47129	P251X03.0	AS	13.6	500	0.60
		CU	25.0	2,500	0.40
		PB	9.0	1,000	1.4
47130	P251X05.0	AS	5.8	500	0.60
		CU	17.6	2,500	0.40
		PB	8.2	1,000	1.4
47131	P251X07.5	AS	7.64	500	0.60
		CU	26.8	2,500	0.40
		PB	8.4	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
47133	P249Y00.0	AS	9.30	500	0.60
		CU	106	2,500	0.40
		PB	226	1,000	1.4
47134	P249FD0.0	AS	9.68	500	0.60
		CU	108	2,500	0.40
		PB	210	1,000	1.4
47135	P249MD0.0	AS	9.50	500	0.60
		CU	96.2	2,500	0.40
		PB	208	1,000	1.4
47136	P249X01.0	AS	2.7	500	0.60
		CU	23.4	2,500	0.40
		PB	8.0	1,000	1.4
		SB	ND	500	10
47137	P247X02.0	AS	6.54	500	0.60
		CU	28.2	2,500	0.40
		PB	12	1,000	1.4
47138	P247X04.5	AS	8.02	500	0.60
		CU	24.8	2,500	0.40
		PB	11	1,000	1.4
47139	P244X00.0	AS	42.0	500	3.0
		CU	398	2,500	0.40
		PB	342	1,000	1.4
47140	P245X00.0	AS	12.8	500	0.60
		CU	480	2,500	2.0
		PB	692	1,000	1.4

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/10/89
Date Extracted: 08/18/89
Date Analyzed: 08/18/89

Laboratory Job No.: 893713
Date Received: 08/15/89
Date Reported: 10/19/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
47118 P245X02.0 GASOLINE	638 mg/kg	12.0 mg/kg
47119 P245X02.5 GASOLINE	ND	1.0 mg/kg
47120 P245X04.5 GASOLINE	ND	1.0 mg/kg
47121 P244X01.5 GASOLINE	2.2 mg/kg	1.0 mg/kg
47122 P244X02.0 GASOLINE	970 mg/kg	12.0 mg/kg
47123 P244X02.5 GASOLINE	5.4 mg/kg	1.0 mg/kg
47124 P244X04.0 GASOLINE	ND	1.0 mg/kg
47125 P250X00.0 GASOLINE	ND	1.0 mg/kg
47126 P250X01.5 GASOLINE	ND	1.0 mg/kg
47127 P251X00.0 GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO	SMPLNO-ID	RESULTS	DET.LIM
47128	P251X01.5 GASOLINE	160 mg/kg	1.0 mg/kg
47129	P251X03.0 GASOLINE	300 mg/kg	1.0 mg/kg
47130	P251X05.0 GASOLINE	39.0 mg/kg	1.0 mg/kg
47131	P251X07.5 GASOLINE	8.4 mg/kg	1.0 mg/kg
47132	P249X00.0 GASOLINE	1.2 mg/kg	1.0 mg/kg
47137	P247X02.0 GASOLINE	ND	1.0 mg/kg
47138	P247X04.5 GASOLINE	ND	1.0 mg/kg
47139	P244X00.0 GASOLINE	ND	1.0 mg/kg
47140	P245X00.0 GASOLINE	1.9 mg/kg	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 08/10/89
Date Extracted: 08/16/89
Date Analyzed: 09/14/89

Laboratory Job No.: 893713
Date Received: 08/15/89
Date Reported: 10/19/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
47119 P245X02.5		
NAPHTHALENE	ND	0.069 mg/kg
ACENAPHTHYLENE	ND	0.099 mg/kg
ACENAPHTHENE	ND	0.14 mg/kg
FLUORENE	ND	0.015 mg/kg
47122 P244X02.0		
NAPHTHALENE	27.6 mg/kg	1.4 mg/kg
ACENAPHTHYLENE	5.4 mg/kg	2.0 mg/kg
ACENAPHTHENE	ND	2.7 mg/kg
FLUORENE	11.1 mg/kg	0.30 mg/kg
47128 P251X01.5		
NAPHTHALENE	2.45 mg/kg	0.17 mg/kg
ACENAPHTHYLENE	0.60 mg/kg	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	1.75 mg/kg	0.037 mg/kg
47129 P251X03.0		
NAPHTHALENE	1.10 mg/kg	0.17 mg/kg
ACENAPHTHYLENE	ND	0.25 mg/kg
ACENAPHTHENE	ND	0.34 mg/kg
FLUORENE	0.63 mg/kg	0.037 mg/kg
47132 P249X00.0		
NAPHTHALENE	ND	0.35 mg/kg
ACENAPHTHYLENE	ND	0.50 mg/kg
ACENAPHTHENE	ND	0.69 mg/kg
FLUORENE	ND	0.075 mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47119 P245X02.5				
PHENANTHRENE	0.18	mg/kg	0.022	mg/kg
ANTHRACENE	ND		0.048	mg/kg
FLUORANTHENE	0.0059	mg/kg	0.0012	mg/kg
PYRENE	0.015	mg/kg	0.0050	mg/kg
BENZO(A)ANTHRACENE	ND		0.00046	mg/kg
CHRYSENE	ND		0.00071	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00080	mg/kg
BENZO(K)FLUORANTHENE	0.00026	mg/kg	0.00022	mg/kg
BENZO(A)PYRENE	ND		0.00035	mg/kg
DIBENZ(AH)ANTHRACENE	0.0020	mg/kg	0.00074	mg/kg
BENZO(GHI)PERYLENE	ND		0.00085	mg/kg
INDENO(123CD)PYRENE	ND		0.0029	mg/kg
47122 P244X02.0				
PHENANTHRENE	38	mg/kg	0.43	mg/kg
ANTHRACENE	ND		0.96	mg/kg
FLUORANTHENE	6.6	mg/kg	0.023	mg/kg
PYRENE	11	mg/kg	0.10	mg/kg
BENZO(A)ANTHRACENE	1.4	mg/kg	0.0093	mg/kg
CHRYSENE	1.9	mg/kg	0.014	mg/kg
BENZO(B)FLUORANTHENE	1.2	mg/kg	0.016	mg/kg
BENZO(K)FLUORANTHENE	0.40	mg/kg	0.0043	mg/kg
BENZO(A)PYRENE	0.51	mg/kg	0.0070	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.015	mg/kg
BENZO(GHI)PERYLENE	1.4	mg/kg	0.017	mg/kg
INDENO(123CD)PYRENE	0.66	mg/kg	0.058	mg/kg

ACCULABS
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47128 P251X01.5				
PHENANTHRENE	4.29	mg/kg	0.054	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	0.26	mg/kg	0.0029	mg/kg
PYRENE	0.53	mg/kg	0.012	mg/kg
BENZO(A)ANTHRACENE	0.083	mg/kg	0.0012	mg/kg
CHRYSENE	0.099	mg/kg	0.0018	mg/kg
BENZO(B)FLUORANTHENE	ND		0.0020	mg/kg
BENZO(K)FLUORANTHENE	0.0007	mg/kg	0.00054	mg/kg
BENZO(A)PYRENE	0.0011	mg/kg	0.00087	mg/kg
DIBENZ(AH)ANTHRACENE	0.0039	mg/kg	0.0019	mg/kg
BENZO(GHI)PERYLENE	ND		0.0021	mg/kg
INDENO(123CD)PYRENE	ND		0.0073	mg/kg
47129 P251X03.0				
PHENANTHRENE	2.5	mg/kg	0.054	mg/kg
ANTHRACENE	ND		0.12	mg/kg
FLUORANTHENE	0.15	mg/kg	0.0029	mg/kg
PYRENE	0.30	mg/kg	0.012	mg/kg
BENZO(A)ANTHRACENE	0.041	mg/kg	0.0012	mg/kg
CHRYSENE	0.040	mg/kg	0.0018	mg/kg
BENZO(B)FLUORANTHENE	ND		0.0020	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00054	mg/kg
BENZO(A)PYRENE	ND		0.00087	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.0019	mg/kg
BENZO(GHI)PERYLENE	ND		0.0021	mg/kg
INDENO(123CD)PYRENE	ND		0.0073	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 893713

LABNO SMPLNO-ID	RESULTS		DET.LIM	
47132 P249X00.0				
PHENANTHRENE	ND		0.11	mg/kg
ANTHRACENE	ND		0.24	mg/kg
FLUORANTHENE	0.044	mg/kg	0.0058	mg/kg
PYRENE	0.14	mg/kg	0.025	mg/kg
BENZO(A)ANTHRACENE	0.020	mg/kg	0.0023	mg/kg
CHRYSENE	0.020	mg/kg	0.0036	mg/kg
BENZO(B)FLUORANTHENE	ND		0.0040	mg/kg
BENZO(K)FLUORANTHENE	ND		0.0011	mg/kg
BENZO(A)PYRENE	0.012	mg/kg	0.0017	mg/kg
)IBENZ(AH)ANTHRACENE	ND		0.0037	mg/kg
BENZO(GHI)PERYLENE	ND		0.0043	mg/kg
INDENO(123CD)PYRENE	ND		0.015	mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

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Jim Smith
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM1
Survey # UP SACRAMENTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Received: 04/27/89
Date Reported: 07/06/89

Date Analyzed: 05/09/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/lt	DET.LIM. mg/lt
21878	T-11	TPH	ND	0.60

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Received: 04/27/89
Date Reported: 07/06/89

Date Analyzed: 05/03/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
21874	T-10A	TPH	1,490	150
21875	T-10B	TPH	1,300	150
21876	T-10C	TPH	552	60
21877	T-10D	TPH	1,040	150

ANALYST:JAN TOISTER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Received: 04/27/89
Date Analyzed: 04/28/89 Date Reported: 07/06/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS	DET. LIM.
21878	T-11 WATER		
	AS	ND	0.20 mg/lt
	CU	ND	0.010 mg/lt
	PB	ND	0.050 mg/lt

.D=Not Detected
ANALYST:NANCY S.TESCHE

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Telephone: (707)763-8245 FAX: (707)763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Received: 04/27/89
Date Reported: 07/06/89

Date Analyzed: 04/28/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS		DET. LIM.
21874	T-10A SOIL		CA TTLC	
	AS	ND	500	3.9 mg/kg
	CU	36.8 mg/kg	2,500	0.20 mg/kg
	PB	57.5 mg/kg	1,000	0.99 mg/kg
1875	T-10B SOIL		CA TTLC	
	AS	ND	500	4.0 mg/kg
	CU	16.2 mg/kg	2,500	0.20 mg/kg
	PB	7.5 mg/kg	1,000	1.00 mg/kg
21876	T-10C SOIL		CA TTLC	
	AS	8.2 mg/kg	500	3.9 mg/kg
	CU	44.0 mg/kg	2,500	0.20 mg/kg
	PB	63.4 mg/kg	1,000	0.98 mg/kg
21877	T-10D SOIL		CA TTLC	
	AS	9.2 mg/kg	500	3.9 mg/kg
	CU	36.1 mg/kg	2,500	0.20 mg/kg
	PB	53.2 mg/kg	1,000	0.98 mg/kg

ND=Not Detected
ANALYST:NANCY S.TESCHE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Received: 04/27/89
Date Reported: 07/06/89

ASSAY:TPH/Diesel in Water (3510/8015)
MATRIX:WATER

LABNO	SMPLNO-ID	RESULTS	DET.LIM
21878	T-11		
	DIESEL	ND	0.30 mg/lt

NALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Extracted: 05/09/89
Date Received: 04/27/89
Date Analyzed: 05/09/89
Date Reported: 07/06/89

ASSAY:TPH/Gasoline/BTEX (EPA 5030/8015/602)
MATRIX:WATER

LABNO	SMPLNO-ID	RESULTS	DET.LIM
21878	T-11		
	GASOLINE	ND	50 ug/L
	BENZENE	ND	1.0 ug/L
	TOLUENE	ND	1.0 ug/L
	ETHYLBENZENE	ND	1.0 ug/L
	XYLENE	ND	1.0 ug/L

ANALYST:ROBERT REMLINGER

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Telephone: (707)763-8245 FAX: (707)763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Extracted: 04/25/89
Date Analyzed: 04/25/89
Date Received: 04/27/89
Date Reported: 07/06/89

ASSAY:TPH/Diesel in Soil/Waste (3550/8015)
MATRIX:SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
21874 T-10A		
DIESEL	140 mg/kg	30.0 mg/kg
21875 T-10B		
DIESEL	66 mg/kg	30.0 mg/kg
21876 T-10C		
DIESEL	33 mg/kg	30.0 mg/kg
21877 T-10D		
DIESEL	78 mg/kg	30.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Extracted: 04/28/89
Date Analyzed: 04/28/89
Date Received: 04/27/89
Date Reported: 07/06/89

ASSAY:TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (EPA 5020/8015/8020)
MATRIX:SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
21874	T-10A GASOLINE	ND	1.0 mg/kg
21875	T-10B GASOLINE	1.2 mg/kg	1.0 mg/kg
21876	T-10C GASOLINE	ND	1.0 mg/kg
21877	T-10D GASOLINE	ND	1.0 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Extracted: 04/28/89
Date Received: 04/27/89
Date Analyzed: 04/28/89
Date Reported: 07/06/89

ASSAY:TPH/GASOLINE & BTEX EPA 5020/8015/8020
MATRIX:SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
21874 T-10A		
BENZENE	ND	0.040 mg/kg
TOLUENE	ND	0.040 mg/kg
ETHYLBENZENE	ND	0.040 mg/kg
XYLENE	ND	0.040 mg/kg
21875 T-10B		
BENZENE	ND	0.040 mg/kg
TOLUENE	ND	0.040 mg/kg
ETHYLBENZENE	ND	0.040 mg/kg
XYLENE	ND	0.040 mg/kg
21876 T-10C		
BENZENE	ND	0.040 mg/kg
TOLUENE	ND	0.040 mg/kg
ETHYLBENZENE	ND	0.040 mg/kg
XYLENE	ND	0.040 mg/kg
21877 T-10D		
BENZENE	ND	0.040 mg/kg
TOLUENE	ND	0.040 mg/kg
ETHYLBENZENE	ND	0.040 mg/kg
XYLENE	ND	0.040 mg/kg

ANALYST:ROBERT REMLINGER

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775
Date Received: 04/27/89
Date Reported: 07/06/89

PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	21879	DET.
	SMP#	T-12	LIM.
	dil.	250	
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	125.0
BROMOFORM		ND	125.0
BROMOMETHANE		ND	125.0
ARBON TETRACHLORIDE		ND	125.0
CHLOROETHANE		ND	125.0
2-CHLOROETHYLVINYL ETHER		ND	250.0
CHLOROFORM		ND	125.0
CHLOROMETHANE		ND	125.0
DIBROMOCHLOROMETHANE		ND	125.0
1,4-DICHLOROBENZENE		ND	125.0
1,1-DICHLOROETHANE		ND	125.0
1,2-DICHLOROETHANE		ND	125.0
1,1-DICHLOROETHENE		ND	50.0
TRANS-1,2-DICHLOROETHENE		ND	125.0
1,2-DICHLOROPROPANE		ND	125.0
CIS-1,3-DICHLOROPROPENE		ND	125.0
TRANS-1,3-DICHLOROPROPENE		ND	125.0
METHYLENE CHLORIDE		ND	125.0
1,1,2,2-TETRACHLOROETHANE		ND	125.0
TETRACHLOROETHENE		ND	125.0
1,1,1-TRICHLOROETHANE		ND	125.0
1,1,2-TRICHLOROETHANE		ND	125.0
TRICHLOROETHENE		ND	125.0
TRICHLOROFLUOROMETHANE		ND	125.0
VINYL CHLORIDE		ND	250.0

NOTE:A SIGNIFICANT DILUTION OF THE SAMPLE WAS NECESSARY DUE TO

ACCULAB
ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
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Telephone: (707)763-8245 FAX: (707)763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891775

COMPOUNDS:	LAB#	21879	DET.
	SMP#	T-12	LIM.
	dil.	250	
PURGEABLES		ug/L	

THE HIGH CONCENTRATION OF NON-CHLORINATED HYDROCARBONS.

ANALYST:MARK VALENTINI

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891848
Date Extracted: 05/15/8
Date Analyzed: 05/15/89
Date Received: 05/02/89
Date Reported: 06/01/89

ASSAY: TPH/Gasoline/BTEX 5030/8015/602
MATRIX: WATER

ABNO	SMPLNO-ID	RESULTS	DET.LIM
32685	T-12 GASOLINE	310 mg/lt	30.0 mg/lt

ANALYST:ROBERT REMLINGER

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891848
Date Extracted: 05/15/8
Date Received: 05/02/89
Date Analyzed: 05/15/89
Date Reported: 06/01/89

ASSAY: BTEX (5030/602)
MATRIX: WATER

LABNO SMPLNO-ID	RESULTS	DET.LIM
32685 T-12		
BENZENE	4.5 mg/lt	1.0 mg/lt
TOLUENE	10 mg/lt	1.0 mg/lt
ETHYLBENZENE	ND	1.0 mg/lt
XYLENE	14 mg/lt	1.0 mg/lt

ANALYST:ROBERT REMLINGER

ACCULAB
ENVIRONMENTAL SERVICES
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 891848
Date Extracted: 05/16/89
Date Received: 05/02/89
Date Analyzed: 05/17/89
Date Reported: 06/01/89

ASSAY:TPH/Diesel in Water (3510/8015)
MATRIX:WATER

LABNO	SMPLNO-ID	RESULTS	DET.LIM
32685	T-12		
	DIESEL	7.0 mg/lt	0.75 mg/lt

NALYST:ROBERT REMLINGER

EUREKA LABORATORIES, INC.

6790 FLORIN PERKINS ROAD
SACRAMENTO, CA 95828
TEL: (916) 381-7953
FAX: (916) 381-4013

Air Pollution
Chemical Analysis,
Research & Testing
Environmental Studi
Robotics
Toxicology

August 22, 1989

Mr. Kevin Brown
DAMES & MOORE
9300 Tech Center Drive, Suite 100
Sacramento, CA 95826

Reference: Project No: 00173-022-044
Project: UPRR-SACTO
ELI Order No: 89-08-055

Dear Mr. Brown:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject task. This report presents analytical results for one (1) soil sample for the following analyses:

ANALYSIS	METHOD	SAMPLE I.D.
Total Petroleum Hydrocarbons	EPA 8015 (Modified)	T-11
Total Recoverable Hydrocarbons	EPA 418.1	T-11
Polynuclear Aromatic Hydrocarbons	EPA 8310 HPLC	T-11
Copper	EPA 6010	T-11
Lead	EPA 6010	T-11
Arsenic - AA	EPA 7060	T-11

Sincerely,
EUREKA LABORATORIES, INC.

By: Shao-Pin Yo
Shao-Pin Yo, Ph.D.
Laboratory Director

SPY/pc

Attachment

RECEIVED
AUG 2 - 1989
DAMES & MOORE

ACCULAB ENVIRONMENTAL SERVICES

29-08-055
AA4

EUREKA LABS
381-7953

3700 Lakeville Highway, Petaluma, CA 94952
P. O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE, STE 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044
PROJECT NAME UPRR - SALTO.
SAMPLERS (Signature) Kevin J. Brown

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	AS-AA	Cu, Pb, Zn 8010	TPH GASOLINE 418.1	8310 - PNA's			REMARKS	LAB USE ONLY LAB NO.
11	8/7/89	0730		X	T-11-72,000	1	✓	✓	✓	✓			TASK 11	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/7/89	1615	Pat Cooper
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks:
NORMAL TAT
as per phone conv.
on 8-8-89 from Kevin Brown

CLIENT COPY

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 MODIFIED

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

SAMPLE ID: T-11
SAMPLE LOCATION: T-11 - 72,000

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

PETROLEUM HYDROCARBONS	CONCENTRATION [mg/Kg (ppm)]	DETECTION LIMIT [mg/Kg (ppm)]
Gasoline Range	<1000	1000
Diesel Range	11200 *	1000
Motor Oil Range	18700	1000
Total Petroleum Hydrocarbons	29900	-
CARBON NO. RANGE		
Gasoline Range	-	-
Diesel Range	C12-C18	-
Motor Oil Range	C18-C28	-
PEAK CARBON NO		
Gasoline Range	-	-
Diesel Range	C14	-
Motor Oil Range	C24	-

* Diesel range hydrocarbons were detected in this sample. However, it has different patterns from our diesel standard. Therefore, this value is only an estimation.

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 MODIFIED

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO

SAMPLE ID: Method Blank
SAMPLE LOCATION: -

DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

PETROLEUM HYDROCARBONS	CONCENTRATION [mg/Kg (ppm)]	DETECTION LIMIT [mg/Kg (ppm)]
Gasoline Range	<10	10
Diesel Range	<10	10
Motor Oil Range	<10	10
Total Petroleum Hydrocarbons	-	-
CARBON NO. RANGE		
Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-
PEAK CARBON NO		
Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 MODIFIED

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

SAMPLE ID: Reagent Spike Recovery

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

PETROLEUM HYDROCARBONS	SPIKE RECOVERY
Gasoline Range	-
Diesel Range	68%
Motor Oil Range	-
Total Petroleum Hydrocarbons	-
CARBON NO. RANGE	
Gasoline Range	-
Diesel Range	-
Motor Oil Range	-
PEAK CARBON NO	
Gasoline Range	-
Diesel Range	-
Motor Oil Range	-

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 MODIFIED

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

SAMPLE ID: Reagent Spike Recovery Dup

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

PETROLEUM HYDROCARBONS	SPIKE RECOVERY
Gasoline Range	-
Diesel Range	55%
Motor Oil Range	-
Total Petroleum Hydrocarbons	-
CARBON NO. RANGE	
Gasoline Range	-
Diesel Range	-
Motor Oil Range	-
PEAK CARBON NO	
Gasoline Range	-
Diesel Range	-
Motor Oil Range	-

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
EPA METHOD 418.1

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

SAMPLE LOCATION: -

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

SAMPLE ID	LOCATION	CONCENTRATION [mg/Kg (ppm)]	
T-11	T-11 - 72,000	86000	D/L 1600 ppm
Method Blank	-	<4	
Reagent Spike Recovery		95%	
Reagent Spike Recovery Duplicate		96%	
Detection Limit 4.0 [mg/Kg (ppm)]			

Abdou Mekebri
Chemist

August 22, 1989
Date

POLYNUCLEAR AROMATIC HYDROCARBONS
EPA METHOD 8310-HPLC

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO

SAMPLE ID: Method Blank
SAMPLE LOCATION: -

DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

COMPOUND	CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Acenaphthene	<75	75
Acenaphthylene	<450	450
Anthracene	<30	30
Benz(a)anthracene	<45	45
Benzo(a)pyrene	<75	75
Benzo(b)fluoranthene	<45	45
Benzo(g,h,i)perylene	<45	45
Benzo(k)fluoranthene	<150	150
Chrysene	<45	45
Dibenzo(a,h)anthracene	<150	150
Fluoranthene	<150	150
Fluorene	<75	75
Indeno(1,2,3-cd)pyrene	<45	45
Naphthalene	<450	450
Phenanthrene	<450	450
Pyrene	<150	150

Note:
This high D/L is due to high matrix interference.

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

POLYNUCLEAR AROMATIC HYDROCARBONS
EPA METHOD 8310-HPLC

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

SAMPLE ID: T-11
SAMPLE LOCATION: T-11 -72,000

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

COMPOUND	CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Acenaphthene	<3750	3750
Acenaphthylene	<22500	22500
Anthracene	<1500	1500
Benz(a)anthracene	<2250	2250
Benzo(a)pyrene	<3750	3750
Benzo(b)fluoranthene	<2250	2250
Benzo(g,h,i)perylene	<2250	2250
Benzo(k)fluoranthene	<7500	7500
Chrysene	<2250	2250
Dibenzo(a,h)anthracene	<7500	7500
Fluoranthene	<7500	7500
Fluorene	<3750	3750
Indeno(1,2,3-cd)pyrene	<2250	2250
Naphthalene	<22500	22500
Phenanthrene	<22500	22500
Pyrene	<7500	7500

Note:
This high D/L is due to high matrix interference.

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

POLYNUCLEAR AROMATIC HYDROCARBONS
EPA METHOD 8310-HPLC

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO

SAMPLE ID: Reagent Spike Recovery
ELI SAMPLE ID: Reagent Spike Recovery

DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

COMPOUND	SPIKE RECOVERY
Acenaphthene	75%
Acenaphthylene	-
Anthracene	79%
Benz(a)anthracene	81%
Benzo(a)pyrene	-
Benzo(b)fluoranthene	-
Benzo(g,h,i)perylene	82%
Benzo(k)fluoranthene	-
Chrysene	81%
Dibenzo(a,h)anthracene	-
Fluoranthene	100%
Fluorene	83%
Indeno(1,2,3-cd)pyrene	82%
Naphthalene	75%
Phenanthrene	79%
Pyrene	78%

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

POLYNUCLEAR AROMATIC HYDROCARBONS
EPA METHOD 8310-HPLC

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO

SAMPLE ID: Reagent Spike Recovery Dup
ELI SAMPLE ID: Reagent Spike Recovery Dup

DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/16/1989
DATE COMPLETED: 08/18/1989

COMPOUND	SPIKE RECOVERY
Acenaphthene	80%
Acenaphthylene	-
Anthracene	82%
Benz(a)anthracene	88%
Benzo(a)pyrene	-
Benzo(b)fluoranthene	-
Benzo(g,h,i)perylene	97%
Benzo(k)fluoranthene	-
Chrysene	88%
Dibenzo(a,h)anthracene	-
Fluoranthene	88%
Fluorene	86%
Indeno(1,2,3-cd)pyrene	97%
Naphthalene	75%
Phenanthrene	82%
Pyrene	87%

Mark Shih, Ph.D.
Chemist

August 22, 1989
Date

Copper and Lead
EPA Method 6010

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/10/1989
DATE COMPLETED: 08/10/1989

SAMPLE LOCATION: T-11 -72,000

SAMPLE ID	CONCENTRATION [mg/Kg (ppm)]	
	Cu	Pb
T-11	12.9	8.3
Method Blank	<0.5	<3.0
T-11 Matrix Spike Recovery	91%	82%
T-11 Matrix Spike Recovery Dup	92%	83%

Detection Limit: Copper 0.5 mg/Kg (ppm) Lead 3.0 mg/Kg (ppm)

Jean Hsu
Chemist

August 22, 1989
Date

Arsenic - AA
EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-055
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES & MOORE

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 08/07/1989
DATE EXTRACTED: 08/10/1989
DATE COMPLETED: 08/14/1989

SAMPLE LOCATION: T-11 -72,000

SAMPLE ID	CONCENTRATION [mg/Kg (ppm)]
T-11	5.6
Method Blank	<0.4
T-11 Matrix Spike Recovery	106%
T-11 Matrix Spike Recovery Dup	105%

Detection Limit: 0.4 mg/Kg (ppm)

Note:
This D/L is based on the dilution factor of 100

Josie Quiambao August 22, 1989
Josie Quiambao Date
Chemist

ACCULAB
ENVIRONMENTAL SERVICES
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P.O. Box 808024, Petaluma, CA 94975-8024
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RECEIVED
1989
DAMES & MOORE

Christopher Lonergan
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM9
Survey # UPRR/SACTO
Project/Release # 00173-022

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894319
Date Collected: 09/14/89
Date Analyzed: 09/21/89
Date Received: 09/15/89
Date Reported: 10/09/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
51784	T12AX06.0	TPH	1,700	30
51785	T12BX06.0	TPH	210	6

ANALYST:JAN TOISTER

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/14/89
Date Extracted: 09/25/89
Date Analyzed: 09/26/89

Laboratory Job No.: 894319
Date Received: 09/15/89
Date Reported: 10/09/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	51784	DET.	51785	DET.
	SMP#	T12AX06.0	LIM.	T12BX06.0	LIM.
	dil.	1000		1000	
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2500.0	ND	2500.0
BROMODICHLOROMETHANE		ND	2500.0	ND	2500.0
BROMOFORM		ND	2500.0	ND	2500.0
BROMOMETHANE		ND	2500.0	ND	2500.0
CARBON TETRACHLORIDE		ND	2500.0	ND	2500.0
CHLOROBENZENE		ND	2500.0	ND	2500.0
CHLOROETHANE		ND	2500.0	ND	2500.0
2-CHLOROETHYLVINYL ETHER		ND	5000.0	ND	5000.0
CHLOROFORM		ND	2500.0	ND	2500.0
CHLOROMETHANE		ND	2500.0	ND	2500.0
DIBROMOCHLOROMETHANE		ND	2500.0	ND	2500.0
1,2-DICHLOROBENZENE		ND	2500.0	ND	2500.0
1,3-DICHLOROBENZENE		ND	2500.0	ND	2500.0
1,4-DICHLOROBENZENE		ND	2500.0	ND	2500.0
1,1-DICHLOROETHANE		ND	2500.0	ND	2500.0
1,2-DICHLOROETHANE		ND	2500.0	ND	2500.0
1,1-DICHLOROETHENE		ND	2500.0	ND	2500.0
TRANS-1,2-DICHLOROETHENE		ND	2500.0	ND	2500.0
1,2-DICHLOROPROPANE		ND	2500.0	ND	2500.0
CIS-1,3-DICHLOROPROPENE		ND	2500.0	ND	2500.0
TRANS-1,3-DICHLOROPROPENE		ND	2500.0	ND	2500.0
ETHYL BENZENE		ND	2500.0	ND	2500.0
METHYLENE CHLORIDE		ND	2500.0	ND	2500.0
1,1,2,2-TETRACHLOROETHANE		ND	2500.0	ND	2500.0
TETRACHLOROETHENE		ND	2500.0	ND	2500.0
TOLUENE		ND	2500.0	ND	2500.0
1,1,1-TRICHLOROETHANE		ND	2500.0	ND	2500.0
1,1,2-TRICHLOROETHANE		ND	2500.0	ND	2500.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894319

COMPOUNDS:	LAB#	51784	DET.	51785	DET.
	SMP#	T12AX06.0	LIM.	T12BX06.0	LIM.
	dil.	1000		1000	
PURGEABLES		ug/kg		ug/kg	
TRICHLOROETHENE		ND	2500.0	ND	2500.0
TRICHLOROFLUOROMETHANE		ND	2500.0	ND	2500.0
VINYL CHLORIDE		ND	5000.0	ND	5000.0
XYLENES		ND	2500.0	ND	2500.0
ACETONE		ND	50000.0	ND	50000.0
2-BUTANONE		ND	5000.0	ND	5000.0
CARBON DISULFIDE		ND	5000.0	ND	5000.0
2-HEXANONE		ND	5000.0	ND	5000.0
4-METHYL-2-PENTANONE		ND	5000.0	ND	5000.0
STYRENE		ND	5000.0	ND	5000.0
VINYL ACETATE		ND	5000.0	ND	5000.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		100%		107%	
TOLUENE-D8		114%		107%	
4-BROMOFLUOROBENZENE		41%		65%	

ND: NOT DETECTED.

NOTE: THE 3RD SURROGATE SPIKE WAS LOW DUE TO MATRIX INTERFERENCE.
BOTH SAMPLES WERE DILUTED DUE TO THEIR HYDROCARBON CONTENT.

ANALYST:PAUL MILLS

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
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L A B O R A T O R Y R E S U L T S

Date Collected: 09/14/89
Date Extracted: 09/26/89
Date Analyzed: 09/26/89

Laboratory Job No.: 894319
Date Received: 09/15/89
Date Reported: 10/09/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
51784 T12AX06.0 GASOLINE	2,200 mg/kg	5.7 mg/kg
51785 T12BX06.0 GASOLINE	2,600 mg/kg	2.7 mg/kg

ANALYST:ROBERT REMLINGER

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 09/14/89
Date Extracted: 09/27/89
Date Analyzed: 10/02/89

Laboratory Job No.: 894319
Date Received: 09/15/89
Date Reported: 10/09/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
51784 T12AX06.0				
NAPHTHALENE	3.0	mg/kg	0.66	mg/kg
ACENAPHTHYLENE	ND		0.98	mg/kg
ACENAPHTHENE	1.5	mg/kg	1.4	mg/kg
FLUORENE	ND		0.14	mg/kg
51785 T12BX06.0				
NAPHTHALENE	0.28	mg/kg	0.066	mg/kg
ACENAPHTHYLENE	0.640	mg/kg	0.098	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.014	mg/kg
51784 T12AX06.0				
PHENANTHRENE	ND		1.1	mg/kg
ANTHRACENE	ND		0.57	mg/kg
FLUORANTHENE	0.36	mg/kg	0.014	mg/kg
PYRENE	0.55	mg/kg	0.069	mg/kg
BENZO(A)ANTHRACENE	0.11	mg/kg	0.0060	mg/kg
CHRYSENE	1.00	mg/kg	0.097	mg/kg
BENZO(B)FLUORANTHENE	0.093	mg/kg	0.0097	mg/kg
BENZO(K)FLUORANTHENE	ND		0.0026	mg/kg
BENZO(A)PYRENE	0.062	mg/kg	0.0046	mg/kg
DIBENZ(AH)ANTHRACENE	0.084	mg/kg	0.0090	mg/kg
BENZO(GHI)PERYLENE	ND		0.013	mg/kg
INDENO(123CD)PYRENE	0.062	mg/kg	0.035	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894319

LABNO	SMPLNO-ID	RESULTS		DET.LIM	
51785	T12BX06.0				
	PHENANTHRENE	ND		0.11	mg/kg
	ANTHRACENE	ND		0.057	mg/kg
	FLUORANTHENE	0.0033	mg/kg	0.0014	mg/kg
	PYRENE	ND		0.0069	mg/kg
	BENZO(A)ANTHRACENE	ND		0.00060	mg/kg
	CHRYSENE	ND		0.0097	mg/kg
	BENZO(B)FLUORANTHENE	0.0011	mg/kg	0.00097	mg/kg
	BENZO(K)FLUORANTHENE	ND		0.00026	mg/kg
	BENZO(A)PYRENE	ND		0.00046	mg/kg
	DIBENZ(AH)ANTHRACENE	ND		0.00090	mg/kg
	BENZO(GHI)PERYLENE	ND		0.0013	mg/kg
	INDENO(123CD)PYRENE	0.015	mg/kg	0.0035	mg/kg

NOTE: TWO SETS OF DATA APPEAR FOR EACH SAMPLE BECAUSE TWO DETECTORS WERE USED AS PER EPA 8310.

ANALYST:TIM AOKI

CCIAL
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89
Date Received: 10/02/89
Date Analyzed: 10/10/89
Date Reported: 10/20/89

TOTAL PETROLEUM HYDROCARBONS(EPA 418.1)

MATRIX:SOIL

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	DET.LIM. mg/kg
53627	T11A014	TPH	ND	6
53628	T11B014	TPH	ND	6

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE

ENVIRONMENTAL SERVICES

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89
Date Received: 10/02/89
Date Analyzed: 10/05/89
Date Reported: 10/20/89

ARSENIC IN WASTE BY AA-GF 7060)
SELENIUM IN WASTE BY AA-G 7740)
MERCURY (AA FLAMELESS EPA 7470)
LEAD(AA ASSAY EPA 7420),3010 ACID DIGEST
COPPER(AA ASSAY EPA 7210),3010 ACID DIGEST
ANTIMONY(AA ASSAY EPA 7040),3010 ACID DIGEST
BERYLLIUM(AA-GF,ASSAY EPA 7091)

MATRIX:SOIL ,ACID DIGEST

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
53627	T11A014	AS	6.38	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
53628	T11B014	AS	6.92	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
53629	P229X06.5	AS	6.20	500	0.60
		PB	12	1,000	1.4
		CU	24.0	2,500	0.40
		SB	10	500	10
		BE	4.0	75	0.40
53630	DHS-001-34	AS	6.56	500	0.60
		SE	ND	100	0.60
		HG	ND	20	0.040
53631	DHS-002-31	AS	6.38	500	0.60
		SE	ND	100	0.60
		HG	0.20	20	0.040

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P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO	COMPOUND	FOUND mg/kg	CA TTLC	DET.LIM. mg/kg
53632	DHS-003-30	AS	6.38	500	0.60
		SE	ND	100	0.60
		HG	0.050	20	0.040

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89 Date Received: 10/02/89
Date Analyzed: 10/03/89 Date Reported: 10/20/89

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
53627	T11A014 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	142	mg/kg	10,000	0.20	mg/kg
	BE	0.27	mg/kg	75	0.20	mg/kg
	CD	2.74	mg/kg	100	0.098	mg/kg
	CO	17.4	mg/kg	8,000	0.39	mg/kg
	CR	51.0	mg/kg	2,500	0.39	mg/kg
	CU	27.7	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	62.6	mg/kg	2,000	0.98	mg/kg
	PB	2.8	mg/kg	1,000	0.98	mg/kg
	SB	ND		500	9.8	mg/kg
	TL	ND		700	3.9	mg/kg
	V	49.5	mg/kg	2,400	0.39	mg/kg
	ZN	51.4	mg/kg	5,000	0.20	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
53628	T11B014 SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	107	mg/kg	10,000	0.20	mg/kg
	BE	0.21	mg/kg	75	0.20	mg/kg
	CD	2.26	mg/kg	100	0.099	mg/kg
	CO	14.5	mg/kg	8,000	0.39	mg/kg
	CR	46.3	mg/kg	2,500	0.39	mg/kg
	CU	24.5	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	47.5	mg/kg	2,000	0.99	mg/kg
	PB	11.7	mg/kg	1,000	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	3.9	mg/kg
	V	49.3	mg/kg	2,400	0.39	mg/kg
	ZN	45.7	mg/kg	5,000	0.20	mg/kg
53630	DHS-001-3400SOIL			CA TTLC		
	AG	0.23	mg/kg	500	0.20	mg/kg
	BA	99.7	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	2.26	mg/kg	100	0.099	mg/kg
	CO	8.20	mg/kg	8,000	0.40	mg/kg
	CR	44.7	mg/kg	2,500	0.40	mg/kg
	CU	25.8	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	45.6	mg/kg	2,000	0.99	mg/kg
	PB	1,550	mg/kg	1,000 *	0.99	mg/kg
	SB	ND		500	9.9	mg/kg
	TL	ND		700	4.0	mg/kg
	V	37.4	mg/kg	2,400	0.40	mg/kg
	ZN	185	mg/kg	5,000	0.20	mg/kg

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO	SMPLNO-ID	RESULTS			DET. LIM.	
53631	DHS-002-3130SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	152	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	2.58	mg/kg	100	0.098	mg/kg
	CO	13.0	mg/kg	8,000	0.39	mg/kg
	CR	48.5	mg/kg	2,500	0.39	mg/kg
	CU	27.5	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.39	mg/kg
	NI	44.7	mg/kg	2,000	0.98	mg/kg
	PB	149	mg/kg	1,000	0.98	mg/kg
	SB	ND		500	9.8	mg/kg
	TL	ND		700	3.9	mg/kg
	V	45.0	mg/kg	2,400	0.39	mg/kg
	ZN	180	mg/kg	5,000	0.20	mg/kg
53632	DHS-003-3092SOIL			CA TTLC		
	AG	ND		500	0.20	mg/kg
	BA	155	mg/kg	10,000	0.20	mg/kg
	BE	ND		75	0.20	mg/kg
	CD	3.29	mg/kg	100	0.100	mg/kg
	CO	9.65	mg/kg	8,000	0.40	mg/kg
	CR	45.6	mg/kg	2,500	0.40	mg/kg
	CU	41.7	mg/kg	2,500	0.20	mg/kg
	MO	ND		3,500	0.40	mg/kg
	NI	38.3	mg/kg	2,000	1.00	mg/kg
	PB	123	mg/kg	1,000	1.00	mg/kg
	SB	ND		500	10.0	mg/kg
	TL	ND		700	4.0	mg/kg
	V	43.6	mg/kg	2,400	0.40	mg/kg
	ZN	285	mg/kg	5,000	0.20	mg/kg

ND=Not Detected

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612
Date Collected: 09/28/89 Date Received: 10/02/89
Date Analyzed: 10/03/89 Date Reported: 10/20/89

PURGEABLES BY GC/MS(EPA8240)

COMPOUNDS:	LAB#	53627	DET.	53628	DET.
	SMP#	T11A014	LIM.	T11B014	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

COMPOUNDS:	LAB#	53627	DET.	53628	DET.
	SMP#	T11A014	LIM.	T11B014	LIM.
PURGEABLES		ug/kg		ug/kg	
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
/INYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	5.1	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		104%		118%	
TOLUENE-D8		113%		110%	
4-BROMOFLUOROBENZENE		109%		98%	

ND: NOT DETECTED.

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/28/89
Date Extracted: 10/04/89
Date Analyzed: 10/04/89

Laboratory Job No.: 894612
Date Received: 10/02/89
Date Reported: 10/20/89

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
53627 T11A014		
GASOLINE	ND	1.0 mg/kg
53628 T11B014		
GASOLINE	ND	1.0 mg/kg

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Date Collected: 09/28/89
Date Extracted: 10/03/89
Date Analyzed: 10/16/89

Laboratory Job No.: 894612
Date Received: 10/02/89
Date Reported: 10/20/89

ASSAY: POLYNUCLEAR AROMATICS (EPA 8310)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS		DET.LIM	
53627 T11A014				
NAPHTHALENE	0.10	mg/kg	0.069	mg/kg
ACENAPHTHYLENE	0.16	mg/kg	0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg
53628 T11B014				
NAPHTHALENE	0.070	mg/kg	0.069	mg/kg
ACENAPHTHYLENE	0.26	mg/kg	0.099	mg/kg
ACENAPHTHENE	ND		0.14	mg/kg
FLUORENE	ND		0.015	mg/kg
53627 T11A014				
PHENANTHRENE	0.10	mg/kg	0.026	mg/kg
ANTHRACENE	ND		0.059	mg/kg
FLUORANTHENE	0.0018	mg/kg	0.0014	mg/kg
PYRENE	0.0062	mg/kg	0.0047	mg/kg
BENZO(A)ANTHRACENE	0.0014	mg/kg	0.00055	mg/kg
CHRYSENE	0.021	mg/kg	0.0074	mg/kg
BENZO(B)FLUORANTHENE	ND		0.00099	mg/kg
BENZO(K)FLUORANTHENE	ND		0.00027	mg/kg
BENZO(A)PYRENE	ND		0.00042	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00089	mg/kg
BENZO(GHI)PERYLENE	ND		0.00085	mg/kg
INDENO(123CD)PYRENE	ND		0.0036	mg/kg

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894612

LABNO SMPLNO-ID	RESULTS		DET.LIM	
53628 T11B014				
PHENANTHRENE	0.14	mg/kg	0.026	mg/kg
ANTHRACENE	ND		0.059	mg/kg
FLUORANTHENE	0.0097	mg/kg	0.0014	mg/kg
PYRENE	0.026	mg/kg	0.0047	mg/kg
BENZO(A)ANTHRACENE	0.0180	mg/kg	0.00055	mg/kg
CHRYSENE	0.074	mg/kg	0.0074	mg/kg
BENZO(B)FLUORANTHENE	0.0017	mg/kg	0.00099	mg/kg
BENZO(K)FLUORANTHENE	ND	mg/kg	0.00027	mg/kg
BENZO(A)PYRENE	0.0025	mg/kg	0.00042	mg/kg
DIBENZ(AH)ANTHRACENE	ND		0.00089	mg/kg
BENZO(GHI)PERYLENE	ND		0.00085	mg/kg
INDENO(123CD)PYRENE	0.034	mg/kg	0.0036	mg/kg

PLEASE NOTE THAT TWO SETS OF DATA ARE REPORTED FOR EACH SAMPLE. THIS IS DONE BECAUSE TWO DETECTORS ARE USED TO QUANTITATE THE TARGET COMPOUNDS.

Metals, Arsenic EPA Method 7060, and Lead EPA Method 7421

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-07-161
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
CLIENT ID: CL-1 duplicate
SAMPLE LOCATION: -

PROJECT NO: 00173-022-044
DATE RECEIVED: 07/31/89
DATE EXTRACTED: 08/01/89
DATE COMPLETED: 08/01/89

	CONCENTRATION ng/L (ppt)	DETECTION LIMIT ng/L (ppt)
Arsenic	<0.617	0.617
Lead	<0.617	0.617

Jean Hsu
Chemist

August 02, 1989
Date

Metals, Arsenic EPA Method 7060, and Lead EPA Method 7421

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-07-161
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
CLIENT ID: CL-1
SAMPLE LOCATION: -

PROJECT NO: 00173-022-044
DATE RECEIVED: 07/31/89
DATE EXTRACTED: 08/01/89
DATE COMPLETED: 08/01/89

	CONCENTRATION ng/L (ppt)	DETECTION LIMIT ng/L (ppt)
Arsenic	<0.617	0.617
Lead	<0.617	0.617

Jean Hsu
Chemist

August 02, 1989
Date

Metals, Arsenic EPA Method 7060, and Lead EPA Method 7421

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-07-161
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
CLIENT ID: Method Blank
SAMPLE LOCATION: -

PROJECT NO: 00173-022-044
DATE RECEIVED: 07/31/89
DATE EXTRACTED: 08/01/89
DATE COMPLETED: 08/01/89

	CONCENTRATION ng/L (ppt)	DETECTION LIMIT ng/L (ppt)
Arsenic	<0.617	0.617
Lead	<0.617	0.617

Jean Hsu
Chemist

August 02, 1989
Date

Metals, Arsenic EPA Method 7060, and Lead EPA Method 7421

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-07-161
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
CLIENT ID: Reagent Spike Recovery

PROJECT NO: 00173-022-044
DATE RECEIVED: 07/31/89
DATE EXTRACTED: 08/01/89
DATE COMPLETED: 08/01/89

SPIKE RECOVERY

Arsenic	110%
Lead	94%

Jean Hsu
Chemist

August 02, 1989
Date

Metals, Arsenic EPA Method 7060, and Lead EPA Method 7421

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-07-161
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
CLIENT ID: Reagent Spike Recovery Duplicate

PROJECT NO: 00173-022-044
DATE RECEIVED: 07/31/89
DATE EXTRACTED: 08/01/89
DATE COMPLETED: 08/01/89

SPIKE RECOVERY

Arsenic	106%
Lead	93%

Jean Hsu
Chemist

August 02, 1989
Date

ACCULAB ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Phone: (707) 763-8245 FAX: (707) 763-4065

EUREKA LABS

89-07161

D26

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE. STE. 100
City, State, Zip SACRAMENTO CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-027-044 | PROJECT NAME UPRR - SACTO.

SAMPLERS (Signature) Chris Lanergan

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As, Pb.	REMARKS	LAB USE ONLY LAB NO.
1	7/31	1600		X	CL-1	1	✓	NIOSH METHODS	
					AIR VOLUME = 324L				
					(Phoned 1700 7/31/89				

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	General Remarks:
Kevin J. Brown	7/31/89	1600	Calvin Li ECI	24 HOUR TURNAROUND
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	

FILE PHASE 2 HEALTH & Safety

EUREKA LABORATORIES, INC.

6790 FLORIN PERKINS ROAD
SACRAMENTO, CA 95828
TEL: (916) 381-7953
FAX: (916) 381-4013

Air Pollution
Chemical Analysis,
Research & Testing
Environmental Studie
Robotics
Toxicology

August 16, 1989

Kevin Brown
DAMES AND MOORE
9300 Tech Center Drive #100
Sacramento, CA 95826

Reference: Project No.: 00173-022-044
ELI Order No: 89-08-026

Dear Mr. Brown:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject project. This report presents analytical results for two (2) air filter samples for the following analyses:

ANALYSIS	METHOD	SAMPLE ID.
Arsenic	EPA 7060	TKP #1 & UP890726-01
Total Lead	EPA 7421	TKP #1 & UP890726-01

Sincerely,
EUREKA LABORATORIES, INC.

By: Shao-Pin Yo
Shao-Pin Yo, Ph.D.
Laboratory Director

SPY/pv

Attachment

Total Lead Pb
EPA Method 7421

EUREKA LABORATORIES, INC.
3401 La Grande Blvd.
Sacramento, CA 95823
(916) 428-1193

Order No: 89-08-026
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES AND MOORE
SAMPLE LOCATION: -

PROJECT NO.: 00173-022-044
DATE RECEIVED: 08/03/1989
DATE EXTRACTED: 08/04/1989
DATE COMPLETED: 08/07/1989

SAMPLE ID.	UNITS [ng/L] (ppt)
TKP #1	0.318
Method Blank	<0.212
Reagent Spike Recovery	97%
Reagent Spike Recovery Duplicate	97%

Detection Limit: 0.212 [ng/L] (ppt)

Jean Hsu
Chemist

August 16, 1989
Date

Total Lead Pb
EPA Method 7421

EUREKA LABORATORIES, INC.
3401 La Grande Blvd.
Sacramento, CA 95823
(916) 428-1193

Order No: 89-08-026
Hazardous Waste Testing
Certification No.: 108

CLIENT: DAMES AND MOORE
SAMPLE LOCATION: -

PROJECT NO.: 00173-022-044
DATE RECEIVED: 08/03/1989
DATE EXTRACTED: 08/04/1989
DATE COMPLETED: 08/07/1989

SAMPLE ID.	UNITS [ng/L] (ppt)
UP890726-01	<0.25
Method Blank	<0.25
Reagent Spike Recovery	97%
Reagent Spike Recovery Duplicate	97%

Detection Limit: 0.25 [ng/L] (ppt)

Jean Hsu
Chemist

August 16, 1989
Date

ARSENIC
EPA METHOD 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-026
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
SAMPLE LOCATION: -

PROJECT NO.: 00173-022-044
DATE RECEIVED: 08/03/1989
DATE EXTRACTED: 08/04/1989
DATE COMPLETED: 08/07/1989

SAMPLE ID.	ARSENIC [ng/L (ppt)]
TKP #1	<0.212
Method Blank	<0.212
Reagent Spike Recovery	108%
Reagent Spike Recovery Duplicate	106%

Detection Limit 0.212 [ng/L (ppt)]

Jean Hsu
Chemist

August 16, 1989
Date

ARSENIC
EPA METHOD 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-08-026
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE
SAMPLE LOCATION: -

PROJECT NO.: 00173-022-044
DATE RECEIVED: 08/03/1989
DATE EXTRACTED: 08/04/1989
DATE COMPLETED: 08/07/1989

SAMPLE ID.	ARSENIC [ng/L (ppt)]
UP890726-01	<0.25
Method Blank	<0.25
Reagent Spike Recovery	108%
Reagent Spike Recovery Duplicate	106%

Detection Limit 0.25 [ng/L (ppt)]

Jean Hsu
Chemist

August 16, 1989
Date

EUREKA LABORATORIES, INC.

6790 FLORIN PERKINS ROAD
SACRAMENTO, CA 95828
TEL: (916) 381-7953
FAX: (916) 381-4013

Air Pollution
Chemical Analysis,
Research & Testing
Environmental Studies
Robotics
Toxicology

September 18, 1989

Mr. Kevin Brown
DAMES AND MOORE
9300 Tech Center Drive, Suite 100
Sacramento, CA 95826

RECEIVED
SEP 21 1989
DAMES & MOORE

Reference: Project No: 00173-022-044 (UPRR-SACTO)
ELI Order No: 89-09-013

Dear Mr. Brown:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject project. This report presents analytical results for one (1) air filter sample for the following analyses:

ANALYSIS	METHOD	CLIENT ID.
Lead	EPA 7421	RJM-1
Arsenic	EPA 7060	RJM-1

Sincerely,
EUREKA LABORATORIES, INC.

By: Shao-Pin Yo
Shao-Pin Yo, Ph.D.
Laboratory Director

SPY/ed

Attachment

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: Reagent Spike Recovery

MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

SPIKE RECOVERY

Lead	98%
Arsenic	93%

Jean Hsu
Chemist

September 18, 1989
Date

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: Reagent Spike Recovery Duplicate
MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

SPIKE RECOVERY

Lead	82%
Arsenic	92%

Jeen Hsu
Chemist

September 18, 1989
Date

METALS, Lead EPA Method 7421; and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: RJM-1
SAMPLE LOCATION: -
MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

	CONCENTRATION [ng/L (ppt)]	DETECTION LIMIT [ng/L (ppt)]
Lead	0.224	0.193
Arsenic	<0.193	0.193

Jean Hsu
Chemist

September 18, 1989
Date

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: Method Blank
SAMPLE LOCATION: -
MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

	CONCENTRATION [ng/L (ppt)]	DETECTION LIMIT [ng/L (ppt)]
Lead	<0.193	0.193
Arsenic	<0.193	0.193

Jean Hsu
Chemist

September 18, 1989
Date

89-09-013

ACCULAB ENVIRONMENTAL SERVICES

EUREKA LABS.

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707)763-8245 FAX: (707)763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH CENTER DRIVE STE 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044 PROJECT NAME UPRR - SACTO.

SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	AS	PD	REMARKS	LAB USE ONLY LAB NO.
RJM-1	8/24	89		✓	RJM-1	1	✓	✓	NIOSH METHODS 517 LITRES	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	8/29/89	1300	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
J.L.	9/5/89	0800	Kevin J. Brown
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Kevin J. Brown	9/5/89	0830	Calvin J. Lu ELI

General Remarks: NORMAL TURNAROUND

$2.50/30.*

COPY

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: Reagent Spike Recovery

MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

SPIKE RECOVERY

Lead	98%
Arsenic	93%

Jean Hsu
Chemist

September 18, 1989
Date

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: Reagent Spike Recovery Duplicate
MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

SPIKE RECOVERY

Lead	82%
Arsenic	92%

Jeon Hsu
Chemist

September 18, 1989
Date

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: RJM-1
SAMPLE LOCATION: -
MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

	CONCENTRATION [ng/L (ppt)]	DETECTION LIMIT [ng/L (ppt)]
Lead	0.224	0.193
Arsenic	<0.193	0.193

Jean Hsu
Chemist

September 18, 1989
Date

METALS, Lead EPA Method 7421, and Arsenic EPA Method 7060

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 89-09-013
Hazardous Waste Testing
Certification: 108

CLIENT: DAMES AND MOORE

CLIENT ID.: Method Blank
SAMPLE LOCATION: -
MATRIX: Air Filter

PROJECT NO: 00173-022-044
PROJECT: UPRR-SACTO
DATE RECEIVED: 09/05/1989
DATE EXTRACTED: 09/06/1989
DATE COMPLETED: 09/12/1989

	CONCENTRATION [ng/L (ppt)]	DETECTION LIMIT [ng/L (ppt)]
Lead	<0.193	0.193
Arsenic	<0.193	0.193

Jean Hsu
Chemist

September 18, 1989
Date

01-UY-UKS

EUREKA LABS

ACCULAB ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916/364-8698
Address 9300 TECH. CENTER DRIVE STE 100
City, State, Zip SACRAMENTO, CA. 95826
Client's or Representative's Signature Kevin J. Brown
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-022-044 PROJECT NAME UPRR - SACTO.
SAMPLERS (Signature) RICK MOREN

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	As	Pb	REMARKS	LAB USE ONLY LAB NO.
RSM-1	8/24/89			✓	RSM-1	1	✓	✓	NIOSH METHODS 517 LITRES	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	General Remarks:
Kevin A. Brown	8/29/89	1300		NORMAL TURNAROUND
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	
with Joe J.L.	9/5/89	0800	Kevin A. Brown	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	
Kevin A. Brown	9/5/89	0830	Calvin J-Lu ELI	10.50/30.00

EUREKA LABORATORIES, INC.

6790 FLORIN PERKINS ROAD
SACRAMENTO, CA 95828
TEL: (916) 381-7953
FAX: (916) 381-4013

Air Pollution
Chemical Analysis,
Research & Testing
Environmental Studies
Robotics
Toxicology

August 4, 1989

Mr. Kevin Brown
DAMES AND MOORE
9300 Tech Center Drive, #100
Sacramento, CA 95826

Reference: Job No: 00173-022-044
ELI Order No: 89-08-025

Dear Mr. Brown:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject task. This report presents analytical results for one (1) bulk sample -EMERGENCY SERVICE- for the following analysis:

ANALYSIS	METHOD	SAMPLE ID.
Asbestos	EPA Publication 600/M4-82-020	P219P00.0

Sincerely,
EUREKA LABORATORIES, INC.

By: Shao-Pin Yo
Shao-Pin Yo, Ph.D.
Laboratory Director

SPY/ed

Attachment

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR-SACTO
Project/Release # 00173-022-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 894701
Date Collected: 10/04/89
Date Received: 10/09/89
Date Analyzed: 11/03/89
Date Reported: 11/06/89

ASSAY:
ASBESTOS IN BULK MATERIALS(PLM,EPA-600/M4-82-020)

LABNO	SMPLNO	SMPL. DESCRIPTION	ASBESTOS %	ASBESTOS TYPE	OTHER %	OTHER COMPONENTS TYPE
54264	7-B1-0.0	SOIL	NONE	DETECTED	50	QUARTZ
					50	OPAQUE MATERIAL
54265	7-B1-1.5	SOIL	NONE	DETECTED	75	QUARTZ
					15	CLAY
					10	OPAQUE MATERIAL
54266	7-B2-0.0	SOIL	NONE	DETECTED	60	QUARTZ
					40	OPAQUE MATERIAL
54267	7-B2-1.5	SOIL	NONE	DETECTED	70	QUARTZ
					20	CLAY
					10	OPAQUE MATERIAL
54268	7-B3-0.0	SOIL	NONE	DETECTED	60	QUARTZ
					35	OPAQUE MATERIAL
					5	CELLULOSE FIBERS

COMPRESSIVE STRAIN TEST

Type of Test
- ☐ TX/UU
- ☐ TX/CU (field moisture)
- ☐ TX/CU (saturated)
- ☐ UC (unconfined compression)
- ☒ PERM

Project: LIDRR Location: SACTO Job # 00173-022-4L

Soil Classification: SC Boring # MW 18

Sample # C

Depth (ft.) 57.5

Tested By: WL 10/16/89 Computed By: WL 10/24/89 Checked By: / / Office: 003

	Initial	Final
Wet Weight of Soil + Tare (gm)		477.4
Dry Weight of Soil + Tare (gm) T4		423.4
Net Loss of Moisture (gm)	57.6	
Tare Weight (gm)		75.6
Dry Weight of Soil (gm)	347.6	
Moisture (w_c), % of Dry Weight	16.6	15.5
Wet Weight of Sample (gm)	405.4	401.6
Dry Weight of Sample (gm)		
Wet Density of Sample – γ_m, (pcf)	134.3	
Dry Density of Sample – γ_d, (pcf)	115.2	118.6
$\gamma_{df} = \gamma_{do} \times (V_{to}/V_{tf}) =$		
Sample Height (IN) – H	2.54	2.516
Sample Diameter (IN) – D	2.400	
Sample Area (SQ.IN.) – A	4.524	4.436
Sample Volume (cc) – V_t	188.3	182.9
Volume of Solid (cc) – V_s		
Volume of Void (cc) – V_v		
Void Ratio – e		
Degree of Saturation – s		

SAMPLE TYPE:
- ☒ Undisturbed
- ☐ Remolded to –
  - % D_d _____
  - % Compaction _____

PRESSURES:
- σ_{cell} = _____ psi/psf
- σ_{bp} = _____ psi/psf
- σ_3 = 5000 psi/psf
- σ_1 = _____ psi/psf
- K_c = _____

RATE OF SHEARING:
- _____ in/min
- _____ in/hr.

Load Controlled

SPECIFIC GRAVITY:

_____ Assumed / Determined

SUMMARY OF TEST RESULTS

	5%	10%	15%	20%	PEAK
Axial Strain (%) – E					
Deviator Stress (psf) – $\sigma_1 - \sigma_3$					
Shear Stress (psf) – τ					

REMARKS: _____

EQUIPMENT:

Cell # B Load Frame # _____

Saturation Consol # _____

PERMEABILITY TEST - VOLUME CHANGES DURING BACK PRESSURE

PROJECT: UPRR NUMBER: 00173-022-04.1 LOCATION:

BORING NO.: MW 18 SAMPLE: C DEPTH: 57.5 SET UP: WL 10, 16, 89

DATE	TIME	ELAPSED TIME (MINS.)	CHAMBER PRESSURE (PSI)	BACK PRESSURE (PSI)		CHAMBER FLUID VOLUME CHANGE (C.C.)		BURETTE READINGS				REMARK
								INFLOW FROM BOTTOM		INFLOW FROM TOP		
				BOT.	TOP	R	Δ	R	Δ	R	Δ	
10/16			0	0	0	0.0						
	1817		10	6	5.5	3.7		10.7		15.9		
10/17	1012		10	6	5.5	9.6		14.3		9.7		
	1013		20	16	16	11.6		9.3		10.6		
	1057		20	16	16	11.8		9.4		10.7		
	1058		30	26	26	13.5		9.6		11.1		
	1324		30	26	26	14.0		9.7		11.15		
	1325		40	36	36	15.8		9.9		11.4		
	1412		40	36	36	16.0		9.9		11.4		
		—	CONSOLIDATION		—							
	1420	0	55	36	36	4.9		18.2		18.4		
	1421	1	↓	↓	↓	6.0		17.6		17.6		
	1422	2						17.5		17.45		
	1428½	8.5						17.2		17.1		
	1449	29				7.1		17.1		17.0		
	1529	69						17.0		16.85		
	1605		↓	↓	↓	7.7		17.0		16.8		
	1606	0	70.7	36	36	10.5		17.0		16.8		
	1616½		↓	↓	↓	11.8		16.4		16.0		
10/23	1002		↓	↓	↓			15.1		16.1		

BJ7Chts/1862-03/2

ΔV = 5.4 c.c

Dames & Moore

SOIL SAMPLE: MW18C 57.5'
LOCATION:
CELL PRESSURE: 70.7 psi
BACK PRESSURE: 38/34 psi

PERMEABILITY DATA

σ_c = 5000 psf

JOB TEST NO.: 173-022-044
DATE: 10-15-89
TESTED BY: W. LEW
APPARATUS NO.:

DATE	TIME	Δ TIME MIN.	ACCUM. TIME MIN.	Δ P (PSF)	T °C	INFLOW Reading C.C.	INFLOW Q=Δ Reading	INFLOW k at 20° C cm/sec	OUTFLOW Reading C.C.	OUTFLOW Q=Δ Reading	OUTFLOW k at 20° C cm/sec
10/25	1019				24	13.72			15.62		
	1115	56				14.91	1.19	2.548×10^{-7}	14.62	1.20	2.570×10^{-7}
	1243	88				16.75	1.84	2.507×10^{-7}	12.80	1.82	2.480×10^{-7}
		BACK PRESSURE =					40/32 psi				
	1246	36			24	9.14	1.47	2.448×10^{-7}	12.70	1.50	2.498×10^{-7}
	1322	22				10.61	1.09	2.420×10^{-7}	11.80	1.10	2.443×10^{-7}
	1549	31				11.70	1.30	2.514×10^{-7}	10.10	1.24	2.398×10^{-7}
	1720					13.00			8.36		
					$K_{20°C}$ =		AVE =	2.488×10^{-7}		AVE	$= 2.478 \times 10^{-7}$

WATER CONTENTS

CONT. NO.					
$W_c + W_s + W_w$					
W W_s					
W_w					
W_c					
W_s					
w %					

SPECIMEN DIMENSIONS	
Height, in	
Diameter, in	
Area, in^2	
Volume, cu ft	

BEFORE PERMEATION

Wt. cyl + Wt. soil in gms	
Wt. cyl in gms	
Wt. of wet soil in gms	
Volume of soil in ft^3	
W nsity γ w in lb/cu ft	
Dry density γd in lb/cu ft	
Void ratio θ	
Saturation S	

AFTER PERMEATION

Wt. cyl + Wt. soil in gms	
Wt. cyl in gms	
Wt. of wet soil in gms	
Initial Wt. wet soil in gms	
Water pickup in gms	
Swell in mm	
Wet density in lbs/cu ft	
Dry density in lbs/ cu ft	

COMPRESSIVE STRAIN TEST

Type of Test
- ☐ TX/UU
- ☐ TX/CU (field moisture)
- ☐ TX/CU (saturated)
- ☐ UC (unconfined compression)
- ☒ PERM

Project: LLPRR Location: SACTO Job # 00173-022-4

Soil Classification: ML Boring # MW 12

Sample # A

Depth (ft.) 68.5

Tested By: WL 10/16/24 Computed By: / / Checked By: WL 10/~~17~~/24 Office: 003

	Initial	Final
Wet Weight of Soil + Tare (gm)		494.5
Dry Weight of Soil + Tare (gm)		402.1
Net Loss of Moisture (gm)	91.1	
Tare Weight (gm)		70.0
Dry Weight of Soil (gm)	333.2	
Moisture (w_c), % of Dry Weight	27.3	27.4
Wet Weight of Sample (gm)	421.3	424.5
Dry Weight of Sample (gm)		
Wet Density of Sample – γ_m, (pcf)	122.3	
Dry Density of Sample – γ_d, (pcf)	96.1	99.9
$\gamma_{df} = \gamma_{do} \times (V_{to}/V_{tf}) =$		
Sample Height (IN) – H	2.92	
Sample Diameter (IN) – D	2.400	
Sample Area (SQ IN) – A	4.524	
Sample Volume (cc) – V_t	216.5	
Volume of Solid (cc) – V_s		
Volume of Void (cc) – V_v		
Void Ratio – e		
Degree of Saturation – s		

SAMPLE TYPE:
- ☒ Undisturbed
- ☐ Remolded to –
  - % D_d _____
  - % Compaction _____

PRESSURES:
- σ_{cell} = _____ psi/psf
- σ_{bp} = _____ psi/psf
- * σ_3 = 5700/6200 psi/psf
- σ_1 = _____ psi/psf
- K_c = _____

RATE OF SHEARING:
- _____ in/min
- _____ in/hr.

Load Controlled

SPECIFIC GRAVITY:

_____ Assumed / Determined

SUMMARY OF TEST RESULTS

	5%	10%	15%	20%	PEAK
Axial Strain (%) – E					
Deviator Stress (psf) – $\sigma_1 - \sigma_3$					
Shear Stress (psf) – τ					

REMARKS: * 2 LEVELS

EQUIPMENT:

Cell # A Load Frame # _____

PERMEABILITY TEST - VOLUME CHANGES DURING BACK PRESSURE

PROJECT: UPRR NUMBER: 00173-022-04.9 LOCATION:

BORING NO.: MW 12 SAMPLE: A DEPTH: 68.5 SET UP: WLD 16, 89

DATE	TIME	ELAPSED TIME (MINS.)	CHAMBER PRESSURE (PSI)	BACK PRESSURE (PSI)		CHAMBER FLUID VOLUME CHANGE (C.C.)		BURETTE READINGS				REMARK
				BOT.	TOP	R	Δ	INFLOW FROM BOTTOM		INFLOW FROM TOP		
								R	Δ	R	Δ	
10/16			0	0	0	0.2						
	1727	0	10	5	4	3.7		14.3		17.4		
10/17	1035		10	5	4	8.8		23.4		3.2		
	1036		20	15	15	10.6		14.6		15.2		
	1114		20	15	15	10.65		14.8		15.3		
	1115		30	25	25	12.2		15.2		16.4		
	1326		30	25	25	12.8		15.2		16.2		
	1327		40	35	35	14.2		15.5		16.9		
	1423		40	35	35	14.5		15.5		16.8		
			Consolidation									
	1427	0	56	35	35	9.5		18.7		18.5		
	1428	1	↓	↓	↓			17.9		17.3		
	1450	23				11.9		17.6		16.9		
	1528	61				12.4		17.9		16.6		
	1607		↓	↓	↓	12.9		17.2		16.4		
	1608	0	74.6	35	35	10.1		17.2		16.4		
	1617	9	↓	↓		11.8		16.35		15.2		
10/23	1000		↓	↓		11.2		13.7		15.4		

BJ7Chts/1862-03/2

$\Delta V = 5700$ [illegible]

$\Delta V = 8.1$ cc.

Dames & [illegible]e

SOIL SAMPLE: B4 MW12A 68.5'

LOCATION:

JOB TEST NO.: 73-022-044

DATE:

TESTED BY: N. LEW

APPARATUS NO.: A

PERMEABILITY DATA

LL PRESSURE: 74.6 PSI

PRESSURE: 37 1/2 PSI

σ_c = 5700 psf (Stage 1)

DATE	TIME	Δ TIME MIN.	ACCUM. TIME MIN.	Δ P (PSF)	T °C	INFLOW Reading C.C.	INFLOW Q=Δ Reading	INFLOW k at 20° C cm/sec	OUTFLOW Reading C.C.	OUTFLOW Q=Δ Reading	OUTFLOW k at 20° C cm/sec
10/23	1018					11.40			12.40		
	1023	3				12.30	0.90	1.555×10^{-6}	13.30	0.90	1.555×10^{-6}
	1034	5				13.13	0.83	1.434×10^{-6}	14.13	0.83	1.434×10^{-6}
	1043	9				14.06	0.93	1.429×10^{-6}	15.07	0.94	1.444×10^{-6}
	1053	10				15.04	0.98	1.355×10^{-6}	16.05	0.98	1.355×10^{-6}
	1056	9				9.10	0.91	1.398×10^{-6}	10.10	0.92	1.413×10^{-6}
	1105	9				10.31	0.89	1.367×10^{-6}	11.20	0.88	1.352×10^{-6}
	1114					11.70			12.70		
							Ave =	1.423×10^{-6}		Ave =	1.426×10^{-6}

WATER CONTENTS

CONT. NO.					
$W_c + W_s + W_w$					
W_c W_s					
W_w					
W_c					
W_s					
w %					

SPECIMEN DIMENSIONS	
Height, in	2.884
Diameter, in	
Area, in^2	4.410
Volume, ~~cu ft~~ cc	208.4

BEFORE PERMEATION

Wt. cyl + Wt. soil in gms	
Wt. cyl in gms	
Wt. of wet soil in gms	
Volume of soil in ft^3	
W... ensity γ w in lb/cu ft	
...ensity γ d in lb/cu ft	
Void ratio e	
Saturation S	

AFTER PERMEATION

Wt. cyl + Wt. soil in gms	
Wt. cyl in gms	
Wt. of wet soil in gms	
Initial Wt. wet soil in gms	
Water pickup in gms	
Swell in mm	
Wet density in lbs/cu ft	
Dry density in lbs/ cu ft	

00173-022-044

Boring No.: MW12 Sample: A Depth: 68.5 (ft./m.) Consol. by: WL 10/23/89

$\bar{\sigma}_3$ = 6200 psf = 43 PSI

CONSOLIDATION DATA

DATE	TIME	ELAPSED TIME (MIN)	CHAMBER PRESSURE (PSI)	BACK PRESS 1 (PSI)	BACK PRESS 2 (PSI)	EXTERNAL BURETTE OR DIAL RDG. (CC)/(IN.)	INTERNAL BURETTE (CC)	PORE PRESSURE (PSI)
10/23	1127	0	78.0	35		10.2	12.2	
	1244					10.4	12.5	
	1323					10.5	12.5	
	1602					10.5	12.5	

CONSOLIDATION DATA

DATE	TIME	ELAPSED TIME (MIN)	CHAMBER PRESSURE (PSI)	BACK PRESS 1 (PSI)	BACK PRESS 2 (PSI)	EXTERNAL BURETTE OR DIAL RDG. (CC)/(IN.)	INTERNAL BURETTE (CC)	PORE PRESSURE (PSI)

SOIL SAMPLE: MW12 #A @ 68.5'

LOCATION:

CELL PRESSURE: 78 PSI

PRESSURE: 37/33 PSI

PERMEABILITY DATA

$\bar{c}_c$ = 6200 psf (Stage 2)

JOB TEST NO.: 173-022-44

DATE: 10-23-89

TESTED BY: W. Lew

APPARATUS NO.:

DATE	TIME	Δ TIME MIN.	ACCUM. TIME MIN.	Δ P (PSF)	T °C	INFLOW Reading C.C.	INFLOW Q=Δ Reading	INFLOW k at 20° C cm/sec	OUTFLOW Reading C.C.	OUTFLOW Q=Δ Reading	OUTFLOW k at 20° C cm/sec
10/23	1617				24	11.32			14.54		
	1625	8				12.23	0.91	1.573×10^{-6}	13.62	0.92	1.590×10^{-6}
	1639	14				13.73	1.50	1.482×10^{-6}	12.13	1.49	1.472×10^{-6}
	1651	12				14.99	1.26	1.452×10^{-6}	10.90	1.23	1.418×10^{-6}
							Ave	$= 1.502 \times 10^{-6}$			Ave $= 1.493 \times 10^{-6}$

WATER CONTENTS

CONT. NO.					
$W_c + W_s + W_w$					
$W_c + W_s$					
W_w					
W_c					
W_s					
w %					

SPECIMEN DIMENSIONS	
Height, in	2.883
Diameter, in	
Area, in^2	4.407
Volume, cu ft	208.2

BEFORE PERMEATION

Wt. cyl + Wt. soil in gms	
Wt. cyl in gms	
Wt. of wet soil in gms	
Volume of soil in ft^3	
Wet density γ w in lb/cu ft	
Dry density γ d in lb/cu ft	
Void ratio e	
Saturation S	

AFTER PERMEATION

Wt. cyl + Wt. soil in gms	
Wt. cyl in gms	
Wt. of wet soil in gms	
Initial Wt. wet soil in gms	
Water pickup in gms	
Swell in mm	
Wet density in lbs/cu ft	
Dry density in lbs/ cu ft	

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPPR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Date Collected: 02/07/90
Date Extracted: 02/16/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900629
Date Received: 02/14/90
Date Reported: 03/01/90

ASSAY:
TOTAL DISSOLVED SOLIDS (EPA 160.1)

LABNO	SMPLNO	TOTAL DISSOLVED SOLIDS mg/L
3341	MW-18	780

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900629
Date Collected: 02/07/90
Date Received: 02/14/90
Date Extracted: 02/19/90
Date Reported: 03/01/90

ASSAY:ALKALINITY (EPA 310.1)

LABNO	SMPLNO		
3341	MW-18	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	460 mg CACO3/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900629
Date Collected: 02/07/90
Date Received: 02/14/90
Date Analyzed: 03/08/90
Date Reported: 03/01/90

ASSAY:
AMMONIA-NITROGEN (EPA 350.3)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
3341	MW-18	NH3-N	ND	0.03

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/07/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900629
Date Received: 02/14/90
Date Reported: 03/01/90

ASSAY: ANION SCAN (EPA 300.0)
MATRIX: WATER

LABNO	SMPLNO-ID	RESULTS	DET.LIM
3341	MW-18		
	PHOSPHATE	ND	2.9 mg/L
	SULFATE	85 mg/L	0.98 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/07/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900629
Date Received: 02/14/90
Date Reported: 03/01/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	3332	DET.	3333	DET.	3334	DET.
	SMP#	BLANK	LIM.	MW-7	LIM.	MW-22	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	2.6	0.5	0.9	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
,1-DICHLOROETHANE		ND	0.5	9.9	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	58.0	0.5	ND	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5	1.8	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	11.0	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	0.6	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900629

COMPOUNDS:	LAB#	3335	DET.	3336	DET.	3337	DET.
	SMP#	MW-25	LIM.	MW-25A	LIM.	MW-26	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		1.1	0.5	1.1	0.5	1.3	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		1.3	0.5	1.5	0.5	3.2	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		7.6	0.5	7.7	0.5	14.0	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900629

COMPOUNDS:	LAB#	3338	DET.	3339	DET.	3340	DET.
	SMP#	MW-15	LIM.	MW-16	LIM.	MW-17	LIM.
PURGEABLES			ug/L		ug/L		ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	1.8	0.5	0.6	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		5.8	0.5	29.0	0.5	36.0	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		2.8	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		0.5	0.5	2.0	0.5	0.8	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	0.5	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900629

COMPOUNDS:	LAB#	3341	DET.
	SMP#	MW-18	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		ND	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		4.8	0.5
1,2-DICHLOROETHANE		ND	0.5
1,1-DICHLOROETHENE		230.0	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		4.0	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		8.1	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	1.0

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/07/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900629
Date Received: 02/14/90
Date Reported: 03/01/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS: LAB# / SMP#	3332 BLANK	DET. LIM.	3333 MW-7	DET. LIM.	3334 MW-22	DET. LIM.	3335 MW-25	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP#	3336 MW-25A	DET. LIM.	3337 MW-26	DET. LIM.	3338 MW-15	DET. LIM.	3339 MW-16	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900629

COMPOUNDS:	LAB#	3340	DET.	3341	DET.
	SMP#	MW-17	LIM.	MW-18	LIM.
PURGEABLES		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5
TOLUENE		ND	0.5	ND	0.5
XYLENE		ND	0.5	ND	0.5

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Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPPR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Date Collected: 02/13/90
Date Extracted: 02/16/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900660
Date Received: 02/15/90
Date Reported: 03/01/90

ASSAY:
TOTAL DISSOLVED SOLIDS (EPA 160.1)

LABNO	SMPLNO	TOTAL DISSOLVED SOLIDS mg/L
3568	MW-1	370

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900660
Date Collected: 02/13/90
Date Received: 02/15/90
Date Extracted: 02/19/90
Date Reported: 03/01/90

ASSAY:ALKALINITY (EPA 310.1)

LABNO	SMPLNO			
3568	MW-1	ALKALINITY, pH 8.3	0	mg CACO3/L
		ALKALINITY, pH 4.5	170	mg CACO3/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900660
Date Collected: 02/13/90
Date Analyzed: 02/22/90
Date Received: 02/15/90
Date Reported: 03/01/90

ASSAY:
TOTAL ORGANIC CARBON (415.2)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
3568	MW-1	TOC	ND	4

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900660
Date Collected: 02/13/90 Date Received: 02/15/90
Date Analyzed: 02/20/90 Date Reported: 03/01/90

ASSAY:
LEAD (EPA 7420),3050 ACID DIGEST
IRON (EPA 236.1),3050 ACID DIGEST
CALCIUM (EPA 215.1),3050 ACID DIGEST
AGNESIUM (EPA 242.1),3050 ACID DIGEST

MATRIX: WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
3567	MW-8	PB	0.03	5.0	0.01
3568	MW-1	FE	44		0.5
		HARDNESS	245		5
3569	MW-3	PB	0.02	5.0	0.01
3570	MW-19	PB	0.02	5.0	0.01
3571	MW-20	PB	ND	5.0	0.01

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900660
Date Collected: 02/13/90
Date Received: 02/15/90
Date Analyzed: 03/08/90
Date Reported: 03/01/90

ASSAY:
AMMONIA-NITROGEN (EPA 350.3)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
3568	MW-1	NH3-N	ND	0.03

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/13/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900660
Date Received: 02/15/90
Date Reported: 03/01/90

ASSAY: ANION SCAN (EPA 300.0)
MATRIX: WATER

ABNO	SMPLNO-ID	RESULTS	DET.LIM
3568	MW-1		
PHOSPHATE		ND	1.2 mg/L
SULFATE		35.0 mg/L	0.39 mg/L

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Date Collected: 02/13/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900660
Date Received: 02/15/90
Date Reported: 03/01/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS: LAB# / SMP# / PURGEABLES	3565 MW-21 ug/L	DET. LIM. ug/L	3566 MW-27 ug/L	DET. LIM. ug/L	3567 MW-8 ug/L	DET. LIM. ug/L
BROMODICHLOROMETHANE	ND	0.5	ND	0.5	ND	0.5
BROMOFORM	ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE	ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE	ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER	ND	1.0	ND	1.0	ND	1.0
CHLOROFORM	1.6	0.5	0.9	0.5	ND	0.5
CHLOROMETHANE	ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
,1-DICHLOROETHANE	1.1	0.5	1.1	0.5	ND	0.5
1,2-DICHLOROETHANE	ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE	22.0	0.5	3.9	0.5	13.0	0.5
TRANS-1,2-DICHLOROETHENE	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE	ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE	ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE	ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE	ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE	ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE	ND	0.5	ND	0.5	1.5	0.5
1,1,1-TRICHLOROETHANE	ND	0.5	ND	0.5	1.1	0.5
1,1,2-TRICHLOROETHANE	ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE	ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE	ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE	ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900660

COMPOUNDS:	LAB#	3570	DET.	3571	DET.
	SMP#	MW-19	LIM.	MW-20	LIM.
PURGEABLES		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	2.1	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		13.0	0.5	36.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		1.3	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		0.8	0.5	2.1	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/13/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900660
Date Received: 02/15/90
Date Reported: 03/01/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS: LAB# / SMP# / PURGEABLES	3564 BLANK ug/L	DET. LIM. ug/L	3565 MW-21 ug/L	DET. LIM. ug/L	3566 MW-27 ug/L	DET. LIM. ug/L	3567 MW-8 ug/L	DET. LIM. ug/L
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP# / PURGEABLES	3570 MW-19 ug/L	DET. LIM. ug/L	3571 MW-20 ug/L	DET. LIM. ug/L
BENZENE	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5

NOTE: BLANK (3564) CONTAINED LOW LEVELS OF CHLORINATED VOLATILES.
1,1,1-TCA (11 ppb) 1,1-DCE (5.5 ppb).

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RECEIVED
MAR
DAMES & MOORE

Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPRR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710
Date Collected: 02/15/90
Date Received: 02/19/90
Date Analyzed: 02/21/90
Date Reported: 03/02/90

ASSAY:
TOTAL ORGANIC CARBON (415.2)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
3821	MW-28	TOC	5	4
3824	MW-12	TOC	6	4
3825	MW-13	TOC	27	4
3826	MW-13A	TOC	28	4
3827	MW-14	TOC	11	4
3828	MW-14A	TOC	7	4

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 2/23/90
Date Analyzed: 2/23/90

Laboratory Job No.: 900710
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY:
TOTAL DISSOLVED SOLIDS (EPA 160.1)

LABNO	SMPLNO	TOTAL DISSOLVED SOLIDS mg/L
3821	MW-28	760
3824	MW-12A	740
3825	MW-13	650
3826	MW-13A	650
3827	MW-14	730
3828	MW-14A	790

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710
Date Collected: 02/15/90
Date Extracted: 02/26/90
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY:ALKALINITY (EPA 310.1)

LABNO	SMPLNO		
3821	MW-28	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	320 mg CACO3/L
3824	MW-12A	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	320 mg CACO3/L
3825	MW-13	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	560 mg CACO3/L
3826	MW-13A	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	560 mg CACO3/L
3827	MW-14	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	320 mg CACO3/L
3828	MW-14A	ALKALINITY, pH 8.3	0 mg CACO3/L
		ALKALINITY, pH 4.5	320 mg CACO3/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710
Date Collected: 02/15/90
Date Analyzed: 02/21/90
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY:
LEAD (EPA 7420),3050 ACID DIGEST
IRON (EPA 236.1),3050 ACID DIGEST
CALCIUM (EPA 215.1),3050 ACID DIGEST
MAGNESIUM (EPA 242.1),3050 ACID DIGEST

MATRIX: WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
3819	MW-4	PB	0.01	5.0	0.01
3820	MW-11	PB	0.02	5.0	0.01
3821	MW-28	PB	ND	5.0	0.07
		FE	0.3		0.05
		HARDNESS	495		3
3822	MW-29	PB	0.02	5.0	0.01
3823	MW-30	PB	0.02	5.0	0.01
3824	MW-12	PB	ND	5.0	0.07
		FE	1.9		0.05
		HARDNESS	456		3
3825	MW-13	PB	ND	5.0	0.07
		FE	80		0.5
		HARDNESS	513		3
3826	MW-13A	PB	ND	5.0	0.07
		FE	78		0.5
		HARDNESS	500		3

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
3827	MW-14	PB	ND	5.0	0.07
		FE	6.3		0.05
		HARDNESS	326		3
3828	MW-14A	PB	ND	5.0	0.07
		FE	5.4		0.05
		HARDNESS	326		3

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710
Date Collected: 02/15/90
Date Received: 02/19/90
Date Analyzed: 03/08/90
Date Reported: 03/02/90

ASSAY:
AMMONIA-NITROGEN (EPA 350.3)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
3821	MW-28	NH3-N	ND	0.03
3824	MW-12	NH3-N	ND	0.03
3825	MW-13	NH3-N	ND	0.03
3826	MW-13A	NH3-N	ND	0.03
3827	MW-14	NH3-N	ND	0.03
3828	MW-14A	NH3-N	ND	0.03

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 02/28/90
Date Analyzed: 02/28/90

Laboratory Job No.: 900710
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY: ANION SCAN (EPA 300.0)
MATRIX: WATER

ABNO SMPLNO-ID	RESULTS	DET.LIM
3821 MW-28		
PHOSPHATE	ND	0.49 mg/L
SULFATE	190 mg/L	2.0 mg/L
3824 MW-12		
PHOSPHATE	ND	2.4 mg/L
SULFATE	140 mg/L	0.98 mg/L
3825 MW-13		
PHOSPHATE	ND	0.49 mg/L
SULFATE	6.30 mg/L	0.20 mg/L
3826 MW-13A		
PHOSPHATE	ND	0.49 mg/L
SULFATE	5.10 mg/L	0.20 mg/L
3827 MW-14		
PHOSPHATE	ND	0.49 mg/L
SULFATE	190 mg/L	2.0 mg/L
3828 MW-14A		
PHOSPHATE	ND	0.49 mg/L
SULFATE	190 mg/L	2.0 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900710
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

ABNO SMPLNO-ID	RESULTS	DET.LIM
3821 MW-28 GASOLINE	ND	0.05 mg/L
3822 MW-29 GASOLINE	0.05 mg/L	0.05 mg/L
3823 MW-30 GASOLINE	0.06 mg/L	0.05 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 02/23/90
Date Analyzed: 02/23/90

Laboratory Job No.: 900710
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 602)

COMPOUNDS:	LAB#	3818	DET.	3819	DET.	3820	DET.	3822	DET.
	SMP#	BLANK-3	LIM.	MW-4	LIM.	MW-11	LIM.	MW-29	LIM.
	dil.	1		1		1		1	
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	190.0	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	2.1	0.5	ND	0.5	ND	0.5
TOLUENE		ND	0.5	3.5	0.5	ND	0.5	ND	0.5
XYLENE		ND	0.5	7.5	0.5	ND	0.5	ND	0.5

COMPOUNDS:	LAB#	3824	DET.	3825	DET.	3826	DET.	3828	DET.
	SMP#	MW-12	LIM.	MW-13	LIM.	MW-13A	LIM.	MW-14A	LIM.
	dil.	1		5		5		1	
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	10500.0	2.5	11000.0	2.5	3.6	0.5
CHLOROBENZENE		ND	0.5	ND	2.5	ND	2.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	2.5	ND	2.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	2.5	ND	2.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	2.5	ND	2.5	ND	0.5
ETHYL BENZENE		ND	0.5	150.0	2.5	160.0	2.5	ND	0.5
TOLUENE		ND	0.5	400.0	2.5	480.0	2.5	ND	0.5
XYLENE		ND	0.5	1600.0	2.5	1200.0	2.5	0.6	0.5

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 02/23/90
Date Analyzed: 02/23/90

Laboratory Job No.: 900710
Date Received: 02/19/90
Date Reported: 03/02/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS: / PURGEABLES	LAB# / SMP#	3819 MW-4 ug/L	DET. LIM. ug/L	3820 MW-11 ug/L	DET. LIM. ug/L	3822 MW-29 ug/L	DET. LIM. ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	0.6	0.5	2.0	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
',2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
.,1-DICHLOROETHANE		12.0	0.5	ND	0.5	9.3	0.5
1,2-DICHLOROETHANE		46.0	0.5	ND	0.5	22.0	0.5
1,1-DICHLOROETHENE		250.0	0.5	8.3	0.5	220.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		5.3	0.5	ND	0.5	8.3	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		5.7	0.5	0.5	0.5	0.9	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710

COMPOUNDS:	LAB#	3824	DET.	3825	DET.	3826	DET.
	SMP#	MW-12	LIM.	MW-13	LIM.	MW-13A	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		1.4	0.5	ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		9.6	0.5	40.0	0.5	48.0	0.5
1,2-DICHLOROETHANE		ND	0.5	200.0	0.5	250.0	0.5
1,1-DICHLOROETHENE		62.0	0.5	55.0	0.5	89.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5	5.0	0.5	6.7	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	2.1	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		9.0	0.5	ND	0.5	0.8	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900710

COMPOUNDS:	LAB#	3828	DET.
	SMP#	MW-14A	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		ND	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		9.6	0.5
1,2-DICHLOROETHANE		1.0	0.5
1,1-DICHLOROETHENE		380.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		8.9	0.5
1,1,2-TRICHLOROETHANE		1.1	0.5
TRICHLOROETHENE		8.0	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	1.0

ENVIRONMENTAL SERVICES

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Tim Parker
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9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPRR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900709
Date Received: 02/19/90
Date Reported: 02/20/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	3815	DET.	3816	DET.	3817	DET.
	SMP#	MW-28	LIM.	MW-29	LIM.	MW-30	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		0.7	0.5	1.8	0.5	1.5	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		5.8	0.5	10.0	0.5	18.0	0.5
1,2-DICHLOROETHANE		ND	0.5	22.0	0.5	ND	0.5
1,1-DICHLOROETHENE		1.0	0.5	190.0	0.5	820.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	8.5	0.5	45.0	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	2.3	0.5

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.
DLF

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900709

COMPOUNDS:	LAB#	3815	DET.	3816	DET.	3817	DET.
	SMP#	MW-28	LIM.	MW-29	LIM.	MW-30	LIM.
PURGEABLES			ug/L		ug/L		ug/L
TRICHLOROETHENE		ND	0.5	0.9	0.5	4.8	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	1.0	ND	1.0	ND	1.0

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L A B O R A T O R Y R E S U L T S

Date Collected: 02/15/90
Date Extracted: 02/19/90
Date Analyzed: 02/19/90

Laboratory Job No.: 900709
Date Received: 02/19/90
Date Reported: 02/20/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS:	LAB#	3815	DET.	3816	DET.	3817	DET.
	SMP#	MW-28	LIM.	MW-29	LIM.	MW-30	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5	ND	0.5
TOLUENE		ND	0.5	ND	0.5	ND	0.5
XYLENE		ND	0.5	ND	0.5	ND	0.5

ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPPR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900661
Date Collected: 02/14/90
Date Analyzed: 02/06/90
Date Received: 02/15/90
Date Reported: 02/28/90

ASSAY:
BOD (EPA 405.1)

LABNO	SMPLNO	BOD (mg/L)	DETECTION LIMIT (mg/L)
3572	MW-1	ND	6

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Client Code: DAMM7
Survey # UPPR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900661
Date Collected: 02/14/90
Date Received: 02/15/90
Date Analyzed: 02/16/90
Date Reported: 02/28/90

ASSAY:
BOD (EPA 405.1)

LABNO	SMPLNO	BOD (mg/L)	DETECTION LIMIT (mg/L)
3572	MW-1	ND	6

NOTE: THIS IS AN AMENDED REPORT. 3/8/90.

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.
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Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPRR-SACTO
Project/Release # 00173-054

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900630
Date Collected: 02/12/90
Date Analyzed: 02/14/90
Date Received: 02/14/90
Date Reported: 03/08/90

ASSAY:
BOD (EPA 405.1)

LABNO	SMPLNO	BOD (mg/L)	DETECTION LIMIT (mg/L)
3343	MW-18	15	5

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.

ENVIRONMENTAL SERVICES

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Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPRR-SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 900708
Date Collected: 02/15/90
Date Analyzed: 02/19/90
Date Received: 02/19/90
Date Reported: 03/08/90

ASSAY:
BOD (EPA 405.1)

LABNO	SMPLNO	BOD (mg/L)	DETECTION LIMIT (mg/L)
3809	MW-28	ND	5
3810	MW-12	ND	5
3811	MW-13	14	5
3812	MW-13A	10	5
3813	MW-14	ND	5
3814	MW-14A	ND	5

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

SEE AMENDED REPO

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-6245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO.
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 901918
Date Received: 04/25/90
Date Reported: 00/00/00

Date Collected: 04/23/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS:	LAB#	10992	DET.
	SMP#	MW-30	LIM.
PURGEABLES		ug/L	
BENZENE		ND	0.5
CHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
ETHYL BENZENE		ND	0.5
TOLUENE		ND	0.5
XYLENE		ND	0.5

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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 901918
Date Received: 04/25/90
Date Reported: 00/00/00

Date Collected: 04/23/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	10992	DET.
	SMP#	MW-30	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		ND	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		ND	0.5
1,2-DICHLOROETHANE		31.0	0.5
1,1-DICHLOROETHENE		86.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		24.0	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		8.2	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	0.5

AMENDED REPORT

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Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO.
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 901918
Date Received: 04/25/90
Date Reported: 06/04/90

Date Collected: 04/23/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS:	LAB#	10992	DET.
	SMP#	MW-30	LIM.
PURGEABLES		ug/L	
BENZENE		ND	0.5
CHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
ETHYL BENZENE		ND	0.5
TOLUENE		ND	0.5
XYLENE		ND	0.5

DATE REPORTED WAS INADVERTANTLY OMITTED FROM ORIGINAL REPORT

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 901918
Date Received: 04/25/90
Date Reported: 06/04/90

Date Collected: 04/23/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	10992	DET.
	SMP#	MW-30	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		ND	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		ND	0.5
1,2-DICHLOROETHANE		31.0	0.5
1,1-DICHLOROETHENE		86.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		24.0	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		8.2	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	0.5

2ND AMENDED REPORT

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707)763-8245 FAX: (707)763-4065

ATTN: TIM PARKER (2 Pages Total)
Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey UPRR/SACTO.
Project/Release 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 901918
Date Collected: 04/23/90
Date Analyzed: 05/30/90 > 32 days. NOW
Date Received: 04/25/90
Date Reported: 06/04/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS: PURGEABLES	LAB SMP	10992 MW-30 ug/L	DET. LIM.
BENZENE		ND	0.5
CHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
ETHYL BENZENE		ND	0.5
TOLUENE		ND	0.5
XYLENE		ND	0.5

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 901918
Date Received: 04/25/90
Date Reported: 06/04/90

Date Collected: 04/23/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS: PURGEABLES	LAB SMP	10992 MW-30 ug/L	DET. LIM. ug/L
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		ND	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		ND	0.5
1,2-DICHLOROETHANE		31.0	0.5
1,1-DICHLOROETHENE		86.0	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		24.0	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		8.2	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	0.5

ANALYTICAL LABORATORY
A DIVISION OF DEWANTE & STOWELL

1910 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

June 6, 1990
Sample Date: 05/18/90
Sample Rec'd Date: 05/18/90
Report #: 127434
Page 1 of 2

rcd. 6/28/90

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

SAMPLE DESCRIPTION	ANLAB ID#	TIME SAMPLED	B.O.D.$_5$, mg/L	MDL
MW-18	127434-1	0945	ND	2
MW-17	127434-2	1130	ND	2
MW-11	127434-3	1500	ND	2
MW-33	127434-4	1530	ND	2

ND = Not Detected

Data Certified by Kimberlie J Pelz

Report Approved by Kendra Torrey

:kad

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

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ANALYTICAL LABORATORY
A DIVISION OF DEWANTE & STOWELL

1910 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

June 6, 1990
Sample Date: 05/18/90
Sample Rec'd Date: 05/18/90
Report #: 127434

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

QUALITY ASSURANCE / QUALITY CONTROL

	B.O.D.5, mg/L	MDL
KHP Standard (observed)	220	2
KHP Standard (expected)	240	2
KHP Standard (recovery)	92%	
Dilution Water Blank	ND	2

KHP = Potassium Hydrogen Phthalate

ND = Not Detected

Data Certified by K Kelly

Report Approved by K Torrey

:kad

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

Anlab
ANALYTICAL LABORATORY
A DIVISION OF DEWANTE & STOWELL

1910 S STREET. SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/21/90
Sample Rec'd Date: 05/21/90
Report #: 127461 pd. 6/28/90

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

SAMPLE DESCRIPTION	ANLAB ID#	TIME SAMPLED	B.O.D.$_5$, mg/L	MDL
MW-28	127461-1	1130	2	2

Data Certified by Kimberlie J Daly

Report Approved by Kendra Torrey

:kad

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1910 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/21/90
Sample Rec'd Date: 05/21/90
Report #: 127461

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

QUALITY ASSURANCE / QUALITY CONTROL

	B.O.D.5, mg/L	MDL
KHP Standard (observed)	220	2
KHP Standard (expected)	240	2
KHP Standard (recovery)	92%	
Dilution Water Blank	ND	2

KHP = Potassium Hydrogen Phthalate

ND = Not Detected

Data Certified by K Kelly

Report Approved by K Tovey

:kad

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ANALYTICAL LABORATORY
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1910 S STREET. SACRAMENTO. CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/22/90
Sample Rec'd Date: 05/22/90
Report #: 127495 pd. 6/28/90

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

SAMPLE DESCRIPTION	ANLAB ID#	TIME SAMPLED	B.O.D.$_5$, mg/L	MDL
MW-12	127495-1	1200	3	2
MW-14	127495-2	1430	ND	2

ND = Not Detected

Data Certified by Kimberlie J Peloy

Report Approved by Kendra Towey

:kad

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1910 S STREET. SACRAMENTO. CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/22/90
Sample Rec'd Date: 05/22/90
Report #: 127495

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

QUALITY ASSURANCE / QUALITY CONTROL

	B.O.D.5. mg/L	MDL
KHP Standard (observed)	250	2
KHP Standard (expected)	240	2
KHP Standard (recovery)	104%	
Dilution Water Blank	ND	2

KHP = Potassium Hydrogen Phthalate

ND = Not Detected

Data Certified by K Kelly

Report Approved by K Lowrey

:kad

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June 7, 1990
Sample Date: 05/23/90
Sample Rec'd Date: 05/23/90
Report #: 127516 pd. 6/28/90

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

SAMPLE DESCRIPTION	ANLAB ID#	TIME SAMPLED	B.O.D.$_5$, mg/L	MDL
MW-4	127516-1	1400	ND	2

ND = Not Detected

Data Certified by Kimberlie J Daly

Report Approved by Kendra Tovey

:kad

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1910 S STREET. SACRAMENTO. CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/23/90
Sample Rec'd Date: 05/23/90
Report #: 127516

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

QUALITY ASSURANCE / QUALITY CONTROL

	B.O.D.5, mg/L	MDL
KHP Standard (observed)	240	2
KHP Standard (expected)	240	2
KHP Standard (recovery)	100%	
Dilution Water Blank	ND	2

KHP = Potassium Hydrogen Phthalate

ND = Not Detected

Data Certified by K Pelz

Report Approved by K Tonry

:kad

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June 7, 1990
Sample Date: 05/24/90
Sample Rec'd Date: 05/24/90
Report #: 127548 pd. 6/28/90

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

SAMPLE DESCRIPTION	ANLAB ID#	TIME SAMPLED	$B.O.D._5$, mg/L	MDL
MW-31	127548-1	1030	ND	2
MW-30	127548-2	1230	3	2
MW-30A	127548-3	1300	ND	2
MW-32	127548-4	1600	ND	2
MW-32A	127548-5	1630	ND	2

ND = Not Detected

Data Certified by Kimberlie J Pelz

Report Approved by Kudra Torrey

:kad

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1910 S STREET. SACRAMENTO. CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/24/90
Sample Rec'd Date: 05/24/90
Report #: 127548

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

QUALITY ASSURANCE / QUALITY CONTROL

	B.O.D.5, mg/L	MDL
KHP Standard (observed)	230	2
KHP Standard (expected)	240	2
KHP Standard (recovery)	96%	
Dilution Water Blank	ND	2

KHP = Potassium Hydrogen Phthalate

ND = Not Detected

Data Certified by K Daly

Report Approved by K Toney

:kad

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1910 S STREET. SACRAMENTO. CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/25/90
Sample Rec'd Date: 05/25/90
Report #: 127570 pd. 6/28/90

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

SAMPLE DESCRIPTION	ANLAB ID#	TIME SAMPLED	B.O.D.$_5$, mg/L	MDL
MW-13	127570-1	1300	27	2
MW-13A	127570-2	1330	35	2
MW-29	127570-3	1515	ND	2

ND = Not Detected

Data Certified by Kimberlie J Daly

Report Approved by Kadra Tovey

:kad

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1910 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

June 7, 1990
Sample Date: 05/25/90
Sample Rec'd Date: 05/25/90
Report #: 127570

Dames & Moore
9300 Tech Center Drive, Suite #100
Sacramento, CA 95826

Attn: Kevin J. Brown

Location: UPRR, Sacramento

QUALITY ASSURANCE / QUALITY CONTROL

	B.O.D.5. mg/L	MDL
KHP Standard (observed)	230	2
KHP Standard (expected)	240	2
KHP Standard (recovery)	96%	
Dilution Water Blank	ND	2

KHP = Potassium Hydrogen Phthalate

ND = Not Detected

Data Certified by K Kelly

Report Approved by K Towey

:kad

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ENVIRONMENTAL SERVICES
3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Contract/PO # QUOTE-1001
Survey # UPRR/SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903354
Date Collected: 05/16/90
Date Received: 05/21/90
Date Analyzed: 05/30/90
Date Reported: 06/15/90

ASSAY:
ARSENIC (EPA 7060),3020 ACID DIGEST
CHROMIUM (EPA 7190),3020 ACID DIGEST
LEAD (EPA 7420),3020 ACID DIGEST
NICKEL (EPA 7520),3020 ACID DIGEST

MATRIX: WATER

LABNO SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
14329 MW-15	AS	0.004	5.0	0.001
	CR(TOTAL)	0.03	560	0.02
	PB	ND	5.0	0.02
	NI	0.07	20	0.02
14330 MW-16	AS	0.002	5.0	0.001
	CR(TOTAL)	ND	560	0.02
	PB	ND	5.0	0.02
	NI	ND	20	0.02
14331 MW-25	AS	0.003	5.0	0.001
	CR(TOTAL)	ND	560	0.02
	PB	ND	5.0	0.02
	NI	0.2	20	0.02
14332 MW-26	AS	ND	5.0	0.001
	CR(TOTAL)	ND	560	0.02
	PB	ND	5.0	0.02
	NI	0.20	20	0.02

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903354

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
14334	MW-5	AS	0.002	5.0	0.001
		CR(TOTAL)	ND	560	0.02
		PB	ND	5.0	0.02
		NI	0.07	20	0.02
14335	MW-6	AS	0.002	5.0	0.001
		CR(TOTAL)	ND	560	0.02
		PB	ND	5.0	0.02
		NI	0.1	20	0.02
14336	MW-2	AS	0.001	5.0	0.001
		CR(TOTAL)	ND	560	0.02
		PB	ND	5.0	0.02
		NI	0.02	20	0.02

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L A B O R A T O R Y R E S U L T S

Date Collected: 05/16/90
Date Extracted: 05/24/90
Date Analyzed: 05/24/90

Laboratory Job No.: 903354
Date Received: 05/21/90
Date Reported: 06/15/90

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO	SMPLNO-ID	RESULTS	DET.LIM
14331	MW-25		
	GASOLINE	ND	0.05 mg/L
14332	MW-26		
	GASOLINE	ND	0.05 mg/L
14334	MW-5		
	GASOLINE	ND	0.05 mg/L
14336	MW-2		
	GASOLINE	ND	0.05 mg/L

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L A B O R A T O R Y R E S U L T S

Date Collected: 05/16/90
Date Extracted: 05/23/90
Date Analyzed: 05/30/90

Laboratory Job No.: 903354
Date Received: 05/21/90
Date Reported: 06/15/90

ASSAY: TPH/DIESEL (EPA 8015)
MATRIX: WATER

LABNO	SMPLNO-ID	RESULTS	DET.LIM
14331	MW-25		
	DIESEL	ND	0.05 mg/L
14332	MW-26		
	DIESEL	ND	0.05 mg/L
14334	MW-5		
	DIESEL	ND	0.05 mg/L
14336	MW-2		
	DIESEL	ND	0.05 mg/L

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903354

COMPOUNDS:	LAB#	14332	DET.	14333	DET.	14334	DET.
	SMP#	MW-26	LIM.	TC-2	LIM.	MW-5	LIM.
PURGEABLES			ug/L		ug/L		ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		1.1	0.5	ND	0.5	2.6	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		1.6	0.5	ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	0.5	ND	0.5	ND	0.5

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903354

COMPOUNDS:	LAB#	14335	DET.	14336	DET.
	SMP#	MW-6	LIM.	MW-2	LIM.
PURGEABLES			ug/L		ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		1.5	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	0.5	ND	0.5

ENVIRONMENTAL SERVICES

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L A B O R A T O R Y R E S U L T S

Date Collected: 05/16/90
Date Extracted: 06/02/90
Date Analyzed: 06/02/90

Laboratory Job No.: 903354
Date Received: 05/21/90
Date Reported: 06/15/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS: LAB# / SMP# / PURGEABLES	13329 MW-15	DET. LIM. ug/L	14330 MW-16	DET. LIM. ug/L	14331 MW-25	DET. LIM. ug/L	14332 MW-26	DET. LIM. ug/L
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP# / PURGEABLES	14334 MW-5	DET. LIM. ug/L	14335 MW-6	DET. LIM. ug/L	14336 MW-2	DET. LIM. ug/L
BENZENE	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5

ENVIRONMENTAL SERVICES
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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903271
Date Collected: 05/14/90
Date Analyzed: 05/30/90
Date Received: 05/16/90
Date Reported: 06/15/90

ASSAY:
ARSENIC (EPA 7060),3020 ACID DIGEST
LEAD (EPA 7420),3020 ACID DIGEST
NICKEL (EPA 7520),3020 ACID DIGEST
CHROMIUM (EPA 7190),3020 ACID DIGEST

MATRIX: WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
13709	MW-19	AS	0.008	5.0	0.001
		PB	0.05	5.0	0.01
		NI	0.06	20	0.02
		CR(TOTAL)	ND	560	0.02
13710	MW-20	AS	0.008	5.0	0.001
		PB	0.04	5.0	0.01
		NI	ND	20	0.02
		CR(TOTAL)	ND	560	0.02
13712	MW-21	AS	0.006	5.0	0.001
		PB	0.04	5.0	0.01
		NI	0.38	20	0.02
		CR(TOTAL)	ND	560	0.02
13713	MW-22	AS	0.009	5.0	0.001
		PB	0.02	5.0	0.01
		NI	ND	20	0.02
		CR(TOTAL)	ND	560	0.02

THIS REPORT HAS BEEN REVIEWED
AND APPROVED FOR RELEASE.
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ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 05/14/90
Date Extracted: 06/02/90
Date Analyzed: 06/02/90

Laboratory Job No.: 903271
Date Received: 05/16/90
Date Reported: 06/15/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS:	LAB#	13709	DET.	13710	DET.	13711	DET.
	SMP#	MW-19	LIM.	MW-20	LIM.	TC-1	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	0.9	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	3.6	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		1.4	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	1.4	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	0.5	ND	0.5	ND	0.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903271

COMPOUNDS:	LAB#	13712	DET.	13713	DET.	13714	DET.
	SMP#	MW-21	LIM.	MW-22	LIM.	MW-23	LIM.
PURGEABLES		ug/L		ug/L		ug/L	
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		4.2	0.5	5.0	0.5	10.0	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		0.6	0.5	ND	0.5	1.3	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	0.5	ND	0.5	ND	0.5

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903271

COMPOUNDS:	LAB#	13715	DET.
	SMP#	MW-24	LIM.
PURGEABLES		ug/L	
BROMODICHLOROMETHANE		ND	0.5
BROMOFORM		ND	0.5
BROMOMETHANE		ND	0.5
CARBON TETRACHLORIDE		ND	0.5
CHLOROBENZENE		ND	0.5
CHLOROETHANE		ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0
CHLOROFORM		11.0	0.5
CHLOROMETHANE		ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5
1,4-DICHLOROBENZENE		ND	0.5
1,3-DICHLOROBENZENE		ND	0.5
1,2-DICHLOROBENZENE		ND	0.5
1,1-DICHLOROETHANE		ND	0.5
1,2-DICHLOROETHANE		ND	0.5
1,1-DICHLOROETHENE		ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5
1,2-DICHLOROPROPANE		ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5
METHYLENE CHLORIDE		ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5
TETRACHLOROETHENE		ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5
TRICHLOROETHENE		ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5
VINYL CHLORIDE		ND	0.5

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L A B O R A T O R Y R E S U L T S

Date Collected: 05/14/90
Date Extracted: 06/02/90
Date Analyzed: 06/02/90

Laboratory Job No.: 903271
Date Received: 05/16/90
Date Reported: 06/15/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS: LAB# / SMP#	13709 MW-19	DET. LIM.	13710 MW-20	DET. LIM.	13712 MW-21	DET. LIM.	13713 MW-22	DET. LIM.
PURGEABLES	ug/L		ug/L		ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5	ND	0.5	ND	0.5

COMPOUNDS: LAB# / SMP#	13714 MW-23	DET. LIM.	13715 MW-24	DET. LIM.
PURGEABLES	ug/L		ug/L	
BENZENE	ND	0.5	ND	0.5
CHLOROBENZENE	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE	ND	0.5	ND	0.5
ETHYL BENZENE	ND	0.5	ND	0.5
TOLUENE	ND	0.5	ND	0.5
XYLENE	ND	0.5	ND	0.5

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Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Survey # UPRR/SACTO.
Project/Release # 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903212
Date Collected: 05/10/90
Date Received: 05/14/90
Date Analyzed: 05/15/90
Date Reported: 06/05/90

ASSAY:
ARSENIC (EPA 7060),3020 ACID DIGEST
LEAD (EPA 7420),3020 ACID DIGEST
CHROMIUM (EPA 7190),3020 ACID DIGEST
NICKEL (EPA 7520),3020 ACID DIGEST

MATRIX: WATER

LABNO SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
13334 MW-1	AS	0.009	5.0	0.001
	PB	ND	5.0	0.01
	CR(TOTAL)	ND	560	0.02
	NI	ND	20	0.02
13335 MW-3	AS	0.009	5.0	0.001
	PB	0.02	5.0	0.01
	CR(TOTAL)	ND	560	0.02
	NI	ND	20	0.02

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Date Collected: 05/10/90
Date Extracted: 05/19/90
Date Analyzed: 05/19/90

Laboratory Job No.: 903212
Date Received: 05/14/90
Date Reported: 06/05/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS:	LAB#	13334	DET.	13335	DET.
	SMP#	MW-1	LIM.	MW-3	LIM.
PURGEABLES		ug/L		ug/L	
BENZENE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
ETHYL BENZENE		ND	0.5	ND	0.5
TOLUENE		ND	0.5	ND	0.5
XYLENE		ND	0.5	ND	0.5

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DAMES & MOORE

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3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Tim Parker
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM7
Survey # UPRR-SACTO.
Project/Release # 00173-054-044

DAMES & MOORE
SACRAMENTO

APPROVED BY:_____

L A B O R A T O R Y R E S U L T S

JOB NO | AMOUNT | DATE

Laboratory Job No.: 903009
Date Collected: 04/26/90
Date Analyzed: 05/11/90 (10 days)
Date Received: 05/04/90
Date Reported: 05/18/90

ASSAY:
PURGEABLES BY GC/MS(EPA8240) Soil

COMPOUNDS: PURGEABLES	LAB# SMP#	M.BLANK BLANK(5/10) ug/kg	DET. LIM.	M.BLANK BLANK(5/11) ug/kg	DET. LIM.
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		3.5	2.5	16	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS: PURGEABLES	LAB# SMP#	M.BLANK BLANK(5/10) ug/kg	DET. LIM.	M.BLANK BLANK(5/11) ug/kg	DET. LIM.
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		107%		93%	
TOLUENE-D8		101%		98%	
4-BROMOFLUOROBENZENE		115%		97%	

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P.O. Box 808824, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS:	LAB#	Soil 12167	DET.	Soil 12168	DET.
	SMP#	MW3330.0B	LIM.	MW3340.0B	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	6.4	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS:	LAB#	12167	DET.	12168	DET.
	SMP#	MW3330.0B	LIM.	MW3340.0B	LIM.
PURGEABLES		ug/kg		ug/kg	
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		119%		128%	
TOLUENE-D8		108%		111%	
4-BROMOFLUOROBENZENE		122%		125%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS:	LAB#	12169	DET.	12170	DET.
	SMP#	SB2105.0B	LIM.	SB2115.0B	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0

ENVIRONMENTAL SERVICES

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Telephone: (707) 763-8245 FAX: (707) 763-4065

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS:	LAB#	12169	DET.	12170	DET.
	SMP#	SB2105.0B	LIM.	SB2115.0B	LIM.
PURGEABLES		ug/kg		ug/kg	
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		122%		121%	
TOLUENE-D8		111%		112%	
4-BROMOFLUOROBENZENE		108%		105%	

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS:	LAB#	12171	DET.	12174	DET.
	SMP#	SB2125.0B	LIM.	SB2225.0B	LIM.
PURGEABLES		ug/kg		ug/kg	
BENZENE		ND	2.5	ND	2.5
BROMODICHLOROMETHANE		ND	2.5	ND	2.5
BROMOFORM		ND	2.5	ND	2.5
BROMOMETHANE		ND	2.5	ND	2.5
CARBON TETRACHLORIDE		ND	2.5	ND	2.5
CHLOROBENZENE		ND	2.5	ND	2.5
CHLOROETHANE		ND	2.5	ND	2.5
2-CHLOROETHYLVINYL ETHER		ND	5.0	ND	5.0
CHLOROFORM		ND	2.5	ND	2.5
CHLOROMETHANE		ND	2.5	ND	2.5
DIBROMOCHLOROMETHANE		ND	2.5	ND	2.5
1,2-DICHLOROBENZENE		ND	2.5	ND	2.5
1,3-DICHLOROBENZENE		ND	2.5	ND	2.5
1,4-DICHLOROBENZENE		ND	2.5	ND	2.5
1,1-DICHLOROETHANE		ND	2.5	ND	2.5
1,2-DICHLOROETHANE		ND	2.5	ND	2.5
1,1-DICHLOROETHENE		ND	2.5	ND	2.5
TRANS-1,2-DICHLOROETHENE		ND	2.5	ND	2.5
1,2-DICHLOROPROPANE		ND	2.5	ND	2.5
CIS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
TRANS-1,3-DICHLOROPROPENE		ND	2.5	ND	2.5
ETHYL BENZENE		ND	2.5	ND	2.5
METHYLENE CHLORIDE		ND	2.5	ND	2.5
1,1,2,2-TETRACHLOROETHANE		ND	2.5	ND	2.5
TETRACHLOROETHENE		ND	2.5	ND	2.5
TOLUENE		ND	2.5	ND	2.5
1,1,1-TRICHLOROETHANE		ND	2.5	ND	2.5
1,1,2-TRICHLOROETHANE		ND	2.5	ND	2.5
TRICHLOROETHENE		ND	2.5	ND	2.5
TRICHLOROFLUOROMETHANE		ND	2.5	ND	2.5
VINYL CHLORIDE		ND	5.0	ND	5.0
XYLENES		ND	2.5	ND	2.5
ACETONE		ND	50.0	ND	50.0
2-BUTANONE		ND	5.0	ND	5.0
CARBON DISULFIDE		ND	5.0	ND	5.0
2-HEXANONE		ND	5.0	ND	5.0

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L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903009

COMPOUNDS:	LAB#	12171	DET.	12174	DET.
	SMP#	SB2125.0B	LIM.	SB2225.0B	LIM.
PURGEABLES		ug/kg		ug/kg	
4-METHYL-2-PENTANONE		ND	5.0	ND	5.0
STYRENE		ND	5.0	ND	5.0
VINYL ACETATE		ND	5.0	ND	5.0
SURROGATE RECOVERIES-QC					
1,2-DICHLOROETHANE-D4		126%		131%	
TOLUENE-D8		111%		113%	
4-BROMOFLUOROBENZENE		108%		108%	

ND: NOT DETECTED

NOTE: SAMPLES MW3330.0B AND MW3340.0B WERE ANALYZED ON 05/10/90. THE OTHER 4 SAMPLES WERE ANALYZED ON 05/11/90.

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L A B O R A T O R Y R E S U L T S

Date Collected: 04/26/90
Date Extracted: 05/10/90
Date Analyzed: 05/10/90

Laboratory Job No.: 903009
Date Received: 05/04/90
Date Reported: 05/18/90

ASSAY: TPH/GASOLINE (EPA 5020/8015)
MATRIX: SOIL

LABNO	SMPLNO-ID	RESULTS	DET.LIM
12172	SB2210.0B GASOLINE	ND	1.0 mg/kg
12173	SB2215.0B GASOLINE	ND	1.0 mg/kg
12174	SB2225.0B GASOLINE	ND	1.0 mg/kg

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L A B O R A T O R Y R E S U L T S

Date Collected: 04/26/90
Date Extracted: 05/10/90
Date Analyzed: 05/10/90

Laboratory Job No.: 903009
Date Received: 05/04/90
Date Reported: 05/18/90

ASSAY: BTEX (EPA 5020/8020)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
12172 SB2210.0B		
BENZENE	ND	0.040 mg/kg
TOLUENE	ND	0.040 mg/kg
ETHYLBENZENE	ND	0.040 mg/kg
XYLENE	ND	0.040 mg/kg
12173 SB2215.0B		
BENZENE	ND	0.040 mg/kg
TOLUENE	ND	0.040 mg/kg
ETHYLBENZENE	ND	0.040 mg/kg
XYLENE	ND	0.040 mg/kg

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Telephone: (707) 763-8245 FAX: (707) 763-4085

L A B O R A T O R Y R E S U L T S

Date Collected: 04/26/90
Date Extracted: 05/04/90
Date Analyzed: 05/04/90

Laboratory Job No.: 903009
Date Received: 05/04/90
Date Reported: 05/18/90

ASSAY: TPH/DIESEL (EPA 8015)
MATRIX: SOIL

LABNO SMPLNO-ID	RESULTS	DET.LIM
12167 MW3330.0B		
DIESEL	8.3 mg/kg	5.0 mg/kg
12168 MW3340.0B		
DIESEL	ND	5.0 mg/kg
12172 SB2210.0B		
DIESEL	ND	5.0 mg/kg
12173 SB2215.0B		
DIESEL	ND	5.0 mg/kg
12174 SB2225.0B		
DIESEL	ND	5.0 mg/kg

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Contract/PO QUOTE-1001
Survey UPRR/SACTO
Project/Release 00173-054-044

L A B O R A T O R Y R E S U L T S

Date Collected: 05/25/90
Date Extracted: 06/15/90
Date Analyzed: 06/18/90

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

ASSAY: TOTAL DISSOLVED SOLIDS (EPA 160.1)

LABNO	SMPLNO	FOUND mg/L	DET. LIM. mg/L
15365	MW-13	660	10
15366	MW-13A	670	10
15367	MW-29	610	10

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

Date Collected: 05/25/90
Date Extracted: 05/29/90

ASSAY:ALKALINITY (EPA 310.1)

LABNO	SMPLNO			
15365	MW-13	ALKALINITY, pH 8.3	0	mg CACO3/L
		ALKALINITY, pH 4.5	550	mg CACO3/L
15366	MW-13A	ALKALINITY, pH 8.3	0	mg CACO3/L
		ALKALINITY, pH 4.5	545	mg CACO3/L
15367	MW-29	ALKALINITY, pH 8.3	0	mg CACO3/L
		ALKALINITY, pH 4.5	322	mg CACO3/L

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516
Date Collected: 05/25/90
Date Received: 05/29/90
Date Analyzed: 06/01/90
Date Reported: 06/21/90

ASSAY:
TOTAL ORGANIC CARBON (EPA 9060)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
15365	MW-13	TOC	40	4
15366	MW-13A	TOC	40	4
15367	MW-29	TOC	4	4

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516
Date Collected: 05/25/90
Date Received: 05/29/90
Date Analyzed: 06/01/90
Date Reported: 06/21/90

ASSAY:METAL SCAN BY ICP(EPA 6010)

LABNO	SMPLNO-ID	RESULTS		DET. LIM.
15365	MW-13 WATER			
	CR	ND		0.0040 mg/L
	FE	1.81	mg/L	0.010 mg/L
	NI	ND		0.010 mg/L
	PB	ND		0.010 mg/L
	HARDNESS(Ca,Mg)	489	mg/L	
15366	MW-13A WATER			
	CR	ND		0.0040 mg/L
	FE	1.75	mg/L	0.010 mg/L
	NI	0.010	mg/L	0.010 mg/L
	PB	ND		0.010 mg/L
	HARDNESS(Ca,Mg)	495	mg/L	
15367	MW-29 WATER			
	CR	ND		0.0040 mg/L
	FE	0.364	mg/L	0.010 mg/L
	NI	0.015	mg/L	0.010 mg/L
	PB	ND		0.010 mg/L
	HARDNESS(Ca,Mg)	421	mg/L	

ND=Not Detected

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516
Date Collected: 05/25/90
Date Received: 05/29/90
Date Analyzed: 06/01/90
Date Reported: 06/21/90

ASSAY:
ARSENIC (EPA 7060)

MATRIX: WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	CA STLC LEV	DET.LIM. mg/L
15365	MW-13	AS	0.03	5.0	0.005
15366	MW-13A	AS	0.03	5.0	0.005
15367	MW-29	AS	ND	5.0	0.005

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516
Date Collected: 05/25/90
Date Received: 05/29/90
Date Analyzed: 06/01/90
Date Reported: 06/21/90

ASSAY:
AMMONIA-NITROGEN (EPA 350.3)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
15365	MW-13	NH3-N	ND	0.03
15366	MW-13A	NH3-N	ND	0.03
15367	MW-29	NH3-N	ND	0.03

L A B O R A T O R Y R E S U L T S

Date Collected: 05/25/90
Date Extracted: 06/06/90
Date Analyzed: 06/06/90

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

ASSAY: TPH/GASOLINE (EPA 5030/8015)
MATRIX: LIQUID

LABNO SMPLNO-ID	RESULTS	DET.LIM
15365 MW-13		
GASOLINE	46 mg/L	2.5 mg/L
15366 MW-13A		
GASOLINE	41 mg/L	2.5 mg/L
15367 MW-29		
GASOLINE	ND	0.05 mg/L

L A B O R A T O R Y R E S U L T S

Date Collected: 05/25/90
Date Extracted: 05/30/90
Date Analyzed: 06/04/90

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

ASSAY: TPH/DIESEL (EPA 8015)
MATRIX: WATER

LABNO	SMPLNO-ID	RESULTS	DET.LIM
15365	MW-13		
	DIESEL	2.4 mg/L	0.05 mg/L
15366	MW-13A		
	DIESEL	2.4 mg/L	0.05 mg/L
15367	MW-29		
	DIESEL	ND	0.05 mg/L

2,400 ppb

L A B O R A T O R Y R E S U L T S

Date Collected: 05/25/90
Date Extracted: 06/06/90
Date Analyzed: 06/06/90

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

ASSAY: ANION SCAN (EPA 300.0)
MATRIX:WATER

LABNO	SMPLNO	RESULTS	DET LIMITS
15365	MW-13		
	PO4	ND	0.4 mg/L
	SO4	13.0 mg/L	2.0 mg/L
15366	MW-13A		
	PO4	ND	0.4 mg/L
	SO4	13.0 mg/L	2.0 mg/L
15367	MW-29		
	PO4	ND	0.4 mg/L
	SO4	80 mg/L	2.0 mg/L

LABORATORY RESULTS

Date Collected: 05/25/90
Date Extracted: 06/10/90
Date Analyzed: 06/10/90

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

ASSAY:
PURGEABLES IN WATER (EPA 5030/601)

COMPOUNDS: PURGEABLES	LAB SMP	15365 MW-13	DET. LIM. ug/L	15366 MW-13A	DET. LIM. ug/L	15367 MW-29	DET. LIM. ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	ND	0.5	ND	0.5
CHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5	ND	0.5
1,1-DICHLOROETHANE		32.0	0.5	35.0	0.5	4.1	0.5
1,2-DICHLOROETHANE		250.0	0.5	230.0	0.5	14.0	0.5
1,1-DICHLOROETHENE		ND	0.5	1.8	0.5	8.6	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
CIS-1,2-DICHLOROETHENE		11.0	0.5	4.4	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5	4.6	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5	ND	0.5
VINYL CHLORIDE		ND	0.5	ND	0.5	ND	0.5

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516

COMPOUNDS: PURGEABLES	LAB SMP	15368 TC-6 ug/L	DET. LIM. ug/L	15369 RB-3 ug/L	DET. LIM. ug/L
BROMODICHLOROMETHANE		ND	0.5	ND	0.5
BROMOFORM		ND	0.5	ND	0.5
BROMOMETHANE		ND	0.5	ND	0.5
CARBON TETRACHLORIDE		ND	0.5	ND	0.5
CHLOROBENZENE		ND	0.5	ND	0.5
CHLOROETHANE		ND	0.5	ND	0.5
2-CHLOROETHYLVINYL ETHER		ND	1.0	ND	1.0
CHLOROFORM		ND	0.5	1.2	0.5
CHLOROMETHANE		ND	0.5	ND	0.5
DIBROMOCHLOROMETHANE		ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	0.5	ND	0.5
1,1-DICHLOROETHANE		ND	0.5	ND	0.5
1,2-DICHLOROETHANE		ND	0.5	ND	0.5
1,1-DICHLOROETHENE		ND	0.5	ND	0.5
TRANS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
CIS-1,2-DICHLOROETHENE		ND	0.5	ND	0.5
1,2-DICHLOROPROPANE		ND	0.5	ND	0.5
CIS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
TRANS-1,3-DICHLOROPROPENE		ND	0.5	ND	0.5
METHYLENE CHLORIDE		ND	0.5	ND	0.5
1,1,2,2-TETRACHLOROETHANE		ND	0.5	ND	0.5
TETRACHLOROETHENE		ND	0.5	ND	0.5
1,1,1-TRICHLOROETHANE		ND	0.5	ND	0.5
1,1,2-TRICHLOROETHANE		ND	0.5	ND	0.5
TRICHLOROETHENE		ND	0.5	ND	0.5
TRICHLOROFLUOROMETHANE		ND	0.5	ND	0.5
VINYL CHLORIDE		ND	0.5	ND	0.5

L A B O R A T O R Y R E S U L T S

Date Collected: 05/25/90
Date Extracted: 06/10/90
Date Analyzed: 06/10/90

Laboratory Job No.: 903516
Date Received: 05/29/90
Date Reported: 06/21/90

ASSAY:
PURGEABLE AROMATICS IN WATER (EPA 5030/602)

COMPOUNDS:	LAB SMP	15365 MW-13	DET. LIM.	15366 MW-13A	DET. LIM.	15367 MW-29	DET. LIM.	15369 RB-3	DET. LIM.
	dil.	100		1000		1		1	
PURGEABLES		ug/L		ug/L		ug/L		ug/L	
BENZENE		12000.0	50.0	12000.0	500.0	6.2	0.5	ND	0.5
CHLOROBENZENE		ND	50.0	ND	500.0	ND	0.5	ND	0.5
1,2-DICHLOROBENZENE		ND	50.0	ND	500.0	ND	0.5	ND	0.5
1,3-DICHLOROBENZENE		ND	50.0	ND	500.0	ND	0.5	ND	0.5
1,4-DICHLOROBENZENE		ND	50.0	ND	500.0	ND	0.5	ND	0.5
ETHYL BENZENE		1200.0	50.0	ND	500.0	ND	0.5	ND	0.5
TOLUENE		250.0	50.0	ND	500.0	ND	0.5	ND	0.5
XYLENE		530.0	50.0	ND	500.0	ND	0.5	ND	0.5

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

Kevin Brown
Dames & Moore
9300 Tech Center Dr., Suite 100
Sacramento, CA 95826

Client Code: DAMM6
Contract/PO QUOTE-1001
Survey UPRR/SACTO
Project/Release 00173-054-044

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: **903516**
Date Collected: 05/25/90
Date Received: 05/29/90
Date Analyzed: 06/01/90
Date Reported: 06/19/90

ASSAY:
TOTAL ORGANIC CARBON (EPA 9060)

MATRIX: WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
15365	MW-13	TOC	40	4
15366	MW-13A	TOC	40	4
15367	MW-29	TOC	4	4

L A B O R A T O R Y R E S U L T S

Laboratory Job No.: 903516
Date Collected: 05/25/90
Date Received: 05/29/90
Date Analyzed: 06/01/90
Date Reported: 06/19/90

ASSAY:
AMMONIA-NITROGEN (EPA 350.3)

MATRIX:WATER

LABNO	SMPLNO	COMPOUND	FOUND mg/L	DET.LIM. mg/L
15365	MW-13	NH3-N	ND	0.03
15366	MW-13A	NH3-N	ND	0.03
15367	MW-29	NH3-N	ND	0.03

California Analytical
Laboratory complete

Enseco
A CORNING Company

RECEIVED
MAY 24 1990
DAMES & MOORE

May 22, 1990
Lab ID: 052771

Jim Smith
Dames & Moore
9300 Tech Center Dr.
Suite 100
Sacramento, CA 95826

Dear Mr. Smith:

Enclosed is the report for the four aqueous samples for your UPRR Sacto Project, Number 00173-054-044, which were received at Enseco-Cal Lab on 9 May 1990.

The report consists of the following sections:

I Sample Description
II Analysis Request
III Quality Control Report
IV Analysis Results

If you have any questions, please feel free to call.

Sincerely,

Beth Kelly

Beth Kelly
Program Administrator

mbw

Enseco Incorporated
2544 Industrial Boulevard
West Sacramento, California 95691
916/372-1393 Fax: 916/372-7768

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A CORNING Company

I Sample Description

See the attached Sample Description Information.

The samples were received under chain-of-custody.

II Analysis Request

The following analytical tests were requested.

Lab ID	Analysis Description	
052771-1 thru 4	Halogenated Volatile Organics	601
-3	Aromatic Volatile Organics	602

III Quality Control

A. Project Specific QC. No project specific QC (i.e., spikes and/or duplicates) was requested.

B. Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

No target parameters were detected in the method blanks associated with your samples at the reporting limit levels noted on the attached Method Blank Report.

Repetitions of method blanks (with identical QC Lot No.s) have been reported but do not indicate unique determinations.

C. Laboratory Control Samples - The LCS Program

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The DCS results associated with your samples are on the attached Duplicate Control Sample Report.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS. The SCS results associated with your samples are on the attached Single Control Sample Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{\text{(measured concentration)}}{\text{(actual concentration)}} \times 100$$

Precision is measured using duplicate tests by Relative Percent Difference (RPD) as in:

$$\text{RPD} = \frac{\text{(\% recovery test 1 - \% recovery test 2)}}{\text{(\% recovery test 1 + \% recovery test 2)/2}} \times 100$$

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/-3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. In cases where there is not enough historical data, EPA limits or advisory limits are set, with the approval of the Quality Assurance department.

IV Analysis Results

Test methods may include minor modifications of published EPA Methods such as reporting limits or parameter lists. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis; i.e., no correction is made for moisture content, unless the method requires or the client requests that such correction be made.

Results are on the attached data sheets.

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SAMPLE DESCRIPTION INFORMATION
for
Dames & Moore

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
052771-0001-SA	HP-26-39	AQUEOUS	07 MAY 90	12:45	09 MAY 90
052771-0002-SA	HP-26-47	AQUEOUS	07 MAY 90	13:30	09 MAY 90
052771-0003-SA	HP-15-37	AQUEOUS	08 MAY 90	07:25	09 MAY 90
052771-0004-SA	HP-27-47	AQUEOUS	08 MAY 90	14:35	09 MAY 90

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QC LOT ASSIGNMENT REPORT
Volatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
052771-0001-SA	AQUEOUS	601-A	08 MAY 90-40A	12 MAY 90-40A
052771-0002-SA	AQUEOUS	601-A	08 MAY 90-40A	12 MAY 90-40A
052771-0003-SA	AQUEOUS	601-A	08 MAY 90-40A	12 MAY 90-40A
052771-0003-SA	AQUEOUS	602-A	10 MAY 90-3A	11 MAY 90-3A
052771-0004-SA	AQUEOUS	601-A	08 MAY 90-40A	12 MAY 90-40A

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METHOD BLANK REPORT
Volatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: 601-A Matrix: AQUEOUS QC Lot: 08 MAY 90-40A QC Run: 12 MAY 90-40A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Test: 601-A Matrix: AQUEOUS QC Lot: 08 MAY 90-40A QC Run: 12 MAY 90-40A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 08 MAY 90-40A QC Run: 12 MAY 90-40A			
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 10 MAY 90-3A QC Run: 11 MAY 90-3A			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Category: 601-A Matrix: AQUEOUS QC Lot: 08 MAY 90-40A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	6.15	5.20	5.68	114	70-138	17	24
Chloroform	5.0	5.21	4.86	5.04	101	83-124	7.0	18
Bromodichloromethane	10.0	10.3	9.88	10.1	101	78-132	4.2	21
Trichloroethene	5.0	5.41	4.85	5.13	103	82-122	11	16
Chlorobenzene	5.0	5.36	4.94	5.15	103	80-126	8.2	19
Category: 602-A Matrix: AQUEOUS QC Lot: 10 MAY 90-3A Concentration Units: ug/L								
Benzene	5.0	4.90	4.90	4.90	98	82-112	0.0	11
Toluene	5.0	5.11	4.90	5.00	100	81-114	4.2	13
1,3-Dichlorobenzene	5.0	4.62	4.84	4.73	95	68-124	4.7	13
Ethyl benzene	5.0	4.92	4.91	4.92	98	73-117	0.2	11
Xylenes (total)	15.0	14.8	14.5	14.6	98	75-120	2.(	1(

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
Category: 601-A Matrix: AQUEOUS QC Lot: 08 MAY 90-40A QC Run: 12 MAY 90-40A Concentration Units: ug/L				
Bromochloromethane	5.00	4.49	90	68-121
Category: 602-A Matrix: AQUEOUS QC Lot: 10 MAY 90-3A QC Run: 11 MAY 90-3A Concentration Units: ug/L				
a,a,a-Trifluorotoluene	5.00	4.48	90	20-160

Calculations are performed before rounding to avoid round-off errors in calculated results.

Enseco
A CORNING Company

Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-26-39
Lab ID: 052771-0001-SA
Matrix: AQUEOUS
Authorized: 09 MAY 90

Enseco ID: 148587
Sampled: 07 MAY 90
Prepared: NA

Received: 09 MAY 90
Analyzed: 12 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	13	ug/L	0.50
1,1-Dichloroethane	0.76	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	0.51	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	1.0	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	88	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Jon Edmondson

The cover letter is an integral part of this report.
Rev 230787

Enseco
A CORNING Company

Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-26-47
Lab ID: 052771-0002 SA Enseco ID: 148588
Matrix: AQUEOUS Sampled: 07 MAY 90 Received: 09 MAY 90
Authorized: 09 MAY 90 Prepared: NA Analyzed: 12 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	140	ug/L	0.50
1,1-Dichloroethane	5.4	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	0.58	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	8.8	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	6.5	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	92	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

The cover letter is an integral part of this report.
Rev 230787

Enseco
A CORNING Company

Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-15-37
Lab ID: 052771-0003-SA Enseco ID: 148589
Matrix: AQUEOUS Sampled: 08 MAY 90 Received: 09 MAY 90
Authorized: 09 MAY 90 Prepared: NA Analyzed: 12 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	76	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

The cover letter is an integral part of this report.
Rev 230787

Enseco
A CORNING Company

Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-27-47
Lab ID: 052771-0004-SA
Matrix: AQUEOUS
Authorized: 09 MAY 90

Enseco ID: 148590
Sampled: 08 MAY 90
Prepared: NA

Received: 09 MAY 90
Analyzed: 12 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	82	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Jon Edmondson

The cover letter is an integral part of this report.
Rev 230787

Enseco
A CORNING Company

Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-15-37
Lab ID: 052771-0003-SA Enseco ID: 148589
Matrix: AQUEOUS Sampled: 08 MAY 90 Received: 09 MAY 90
Authorized: 09 MAY 90 Prepared: NA Analyzed: 11 MAY 90

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	93	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

The cover letter is an integral part of this report.
Rev 230787

ACCULAB
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name: DAMES & MOORE Phone: 916-364-8698
Address: 9300 TECH CENTER DRIVE, SUITE 100
City, State, Zip: SACTO, CA 95826
Client's or Representative's Signature: Timothy K Parker
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO.: PROJECT NAME: UPRR - SACTO 00173-054-044
SAMPLERS (Signature): Timothy K Parker

STA. NO.	DATE	TIME	COMP	GRAB	~~STATION LOCATION~~ SAMPLE NO	NO. OF CONTAINERS	601	602	REMARKS / LAB USE ONLY LAB NO.
HP-26	5/6/90	1245	-	-	HP-26-39	3	X		
HP-26	5/6/90	1330	-	-	HP-26-47	3	X		
HP-15	5/8/90	0725	-	-	HP-15-37	3	X	X	
HP-27	5/8/90	1435	-	-	HP-27-47	3	X		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Timothy K Parker	5/9/90	0940	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Standard Turn Around Time
#1869

LAB COPY

Enseco
A CORNING Company

INVOICE NO: 00006466

CUSTOMER NO: DAMCA03

CALIF ANALYTICAL LABS
2544 INDUSTRIAL BLVD
WEST SACRAMENTO, CA 95691
REMIT: BOX 5518, ACCT NO.
10697886 BOSTON MA 02206

BILL TO: DAMES & MOORE
9300 TECH CENTER DR.
SUITE 100

SACRAMENTO CA 95826

SHIP TO: DAMES & MOORE
9300 TECH CENTER DR.
SUITE 100

SACRAMENTO CA 95826

DATE	SHIP VIA	F.O.B.	TERMS
05/29/90			NET 30. DUE DATE: 06/28/90

PURCHASE ORDER NUMBER	ORDER DATE	SALES PERSON	OUR ORDER NUMBER
10173-054-044			

QUANTITY			ITEM NUMBER	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
QTY. REQ.	SHIPPED	B.O.				
1	1	0	001	24 AROMATIC VOLATIL		2880.00
1	1	0	002	(EPA-602) ORGANICS		0.00
1	1	0	003	33 HALOGENATED VOLATILE		4290.00
1	1	0	004	(EPA-601) ORGANICS		0.00
1	1	0	005	MOBILE ENV.LABORATORY		4515
1	1	0	006	PROJECT ID#52516-KSS		0.00
					SUBTOTAL	11685.00
					TAX	0.00
					TOTAL	11685.00

CALLAB-052516

Enseco, Inc. - Cal Lab Analytical
2544 Industrial Blvd.

West Sacramento, California 95691
(916) 372-1393

Date Received : 23 APR 90 15:00

Jim Smith
Dames & Moore -
9300 Tech Center Dr.
Suite 100
Sacramento, California
95826

(916) 364-8698

Project ID,
EPA Case, RMA Lot : DAMCA03 UPRR 00173-054-04
4 24 hour rush
P.O. Number :
Delivered By :
Storage Location : RD
Logged in by : GLANE

Sample ID	Enseco ID	Client's label info	Date/Time Samp.	Containers
052516-0001-SA	146448	MW-30	23 APR 90 08:35	3-40VOA
052516-0002-SA	146449	MW-29	23 APR 90 09:10	3-40VOA
052516-0003-SA	146450	HP-56	23 APR 90 14:45	3-40VOA
052516-0004-SA	146698	HP-4-42	24 APR 90 15:25	3-40VOA
052516-0005-SA	146849	HP-8-54	26 APR 90 12:30	3-40VOA
052516-0006-SA	147565	HP-18-37	02 MAY 90 10:15	3-40VOA
052516-0007-SA	147566	HP-18-51	02 MAY 90 11:30	3-40VOA
052516-0008-SA	147677	HP-19-57		3-40VOA
052516-0009-SA	147678	HP-19-38		3-40VOA
052516-0010-SA	147679	HP-14-37		3-40VOA
052516-0011-SA	147680	HP-14-48		3-40VOA
052516-0012-SA	147681	HP-13-36		3-40VOA
052516-0013-SA	147682	HP-13-51		3-40VOA
052516-0014-SA	147683	HP-12-49		3-40VOA
052516-0015-SA	147684	HP-12-38		3-40VOA
052516-0016-SA	147685	HP-11-50		3-40VOA
052516-0017-SA	147686	HP-11-40		3-40VOA
052516-0018-SA	147687	HP-11-36		3-40VOA
052516-0019-SA	147688	HP-10-48		3-40VOA
052516-0020-SA	147689	HP-10-35		3-40VOA
052516-0021-SA	147690	HP-9-54		3-40VOA
052516-0022-SA	147691	HP-9-36		3-40VOA
052516-0023-SA	147692	HP-8-36		3-40VOA
052516-0024-SA	147693	HP-7-48.25		3-40VOA
052516-0025-SA	147694	HP-7-37		3-40VOA

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

Client Manager: Karla Saavedra

Sample ID	Enseco ID	Client's label info	Date/Time Samp.	Containers
052516-0026-SA	147695	HP-6-53.5		3-40VOA
052516-0027-SA	147696	HP-6-37		2-40VOA
052516-0028-SA	147697	HP-5-56		3-40VOA
052516-0029-SA	147699	HP-5-42		3-40VOA
052516-0030-SA	147700	HP-4-36		3-40VOA
052516-0031-SA	147701	HP-3-57		3-40VOA
052516-0032-SA	147702	HP-3-36.5		1-40VOA
052516-0033-SA	147703	HP-2-52		2-40VOA
052516-0034-SA	147705	HP-2-36		3-40VOA
052516-0035-SA	147706	HP-1-56		3-40VOA
052516-0036-SA	147707	HP-1-36		3-40VOA
052516-0037-SA	147708	MW-29		3-40VOA
052516-0038-SA	147709	MW-30		3-40VOA
052516-0039-SA	147916	HP-20-51	03 MAY 90 07:30	1-40VOA
052516-0040-SA	147917	HP-21-36	03 MAY 90 10:40	3-40VOA
052516-0041-SA	147918	HP-21-54	03 MAY 90 11:15	3-40VOA
052516-0042-SA	147919	HP-22-37	03 MAY 90 13:15	3-40VOA
052516-0043-SA	147920	HP-22-55	03 MAY 90 13:45	3-40VOA
052516-0044-SA	147921	HP-23-37	03 MAY 90 14:50	3-40VOA
052516-0045-SA	147922	HP-23-55	03 MAY 90 15:30	3-40VOA
052516-0046-SA	147968	HP-20-37	04 MAY 90 07:30	3-40VOA
052516-0047-SA	147969	HP-24-40	04 MAY 90 10:40	3-40VOA
052516-0048-SA	147970	HP-24-50	04 MAY 90 11:40	3-40VOA
052516-0049-SA	147971	HP-25-37	04 MAY 90 15:00	3-40VOA
052516-0050-SA	147972	HP-25-54	04 MAY 90 15:35	3-40VOA
052516-0051-SA	148427	HP-15-51	01 MAY 90 08:00	3-40VOA
052516-0052-SA	148428	HP-16-36	01 MAY 90 11:30	3-40VOA
052516-0053-SA	148429	HP-16-54	01 MAY 90 12:30	3-40VOA
052516-0054-SA	148430	HP-17-37.5	01 MAY 90 15:30	3-40VOA
052516-0055-SA	148431	HP-17-47	01 MAY 90 16:10	4-40VOA
052516-0056-SA	148432	HP-17-54	01 MAY 90 16:50	4-40VOA

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

Client Manager: Karla Saavedra

Page ____ of ____
File Index ____

Enseco

INTERLABORATORY ANALYSIS

SHIP TO: *(circle one)*

RMAL ~~ERCO~~ CLE GAS ~~MAR~~ ~~HOU~~

Attention:

SEND RESULTS TO:
Enseco-Cal Lab
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393 FAX: (916) 372-1059
Attention:

CLIENT NAME

PROJECT NO.

Relinquished by: *(Signature)* | Received by: *(Signature)* | Date | Time

Relinquished by: *(Signature)* | Received by: *(Signature)* | Date | Time

Import Lab ID	Enseco ID	Client ID	Matrix (a, s, w)	Date Sampled	Date Rec'd	Date Auth.	Analysis Requested/ P.L. Item #	Sample Condition Upon Receipt

a. Written results required by (date): _____ Verbal results required by (date): _____

b. QC: ☐ Standard Enseco ☐ CLP Protocol ☐ Project-Specific _____

c. Sample Disposal: ☐ Enseco ☐ Return to Client ☐ Phone CAL

d. Raw Data Copies Needed: ☐ Yes ☐ No

e. Detection Limits: ☐ Standard Product ☐ Other*

f. Holding Times: ☐ Enseco ☐ EPA-CLP ☐ Other*

g. *Special Instructions: _____

h. Intercompany Rebate: *(circle one)* 0% 5% 10%

i. P.O. Number _____

Enseco
A CORNING Company

☐ 7440 Lincoln Way, Garden Grove, CA 92641, (714) 895-5494
☐ 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (80[illegible]776
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (81[illegible]8400
☐ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/25/90 Page 1

Lab Number _____

CLIENT [illegible] & MACE

ADDRESS _____

PROJECT NAME _____

CONTRACT / PURCHASE ORDER / QUOTE # _____

PROJECT MANAGER _____

PHONE NUMBER _____

SITE CONTACT _____

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 complete							Sample Condition/ REMARKS
HP-4-112	4/24/90		004244-5	X			3 40								Need VOA [illegible]

SAMPLERS: (Signature) [signature]

Relinquished by: (Signature) Kay Lucero

Received by: (Signature) Kay Lucero — Date 4/25/90 — Time 14:30

Received by: (Signature) _____ — Date 4/25/90 — Time _____

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature) _____ — Date _____ — Time _____

Received for Laboratory by: Njait Mobasky

Date RECEIVED	Time	Date ACCEPTED	Time
4-25-90	14:30		

Method of Shipment: _____

Special Instructions: _____

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

Enseco
A CORNING Company

☐ 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☐ Mobile Labs, (800) ENSECO-8

Date 4/26/90 Page 1 of 1

Lab Number _____

CLIENT DAMES & MOORE

ADDRESS 9300 TECH CENTER DR ST-100
Sacramento, CA 95826

PROJECT NAME
UPRR - SACTO 00173-054-044

CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER
JIM SMITH

PHONE NUMBER
916-364-8698

SITE CONTACT
TIM PARKER

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601	Sample Condition/ REMARKS
HP-8-54	4/26	1230	B042690-4	✓			3	✓	1 vial opened

SAMPLERS: (Signature)

Relinquished by: (Signature)
Kay Turner

Received by: (Signature)
Kay Turner

Date 4/26/90 Time 16:08

Relinquished by: (Signature)

Received by: (Signature)
Jerry Wilson

Date 4/26/90 Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature)

Date Time

Received for Laboratory by:
Jerry Wilson

Date RECEIVED	Time	Date ACCEPTED	Time
4/26/90	1620	4/26/90	1670

Method of Shipment: Rec'd in good cond.

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

Enseco
A CORNING Company

☐ 7440 Lincoln Way, Garden Grove, CA 92641, (714) 895-5494
☐ 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) [illegible]6
☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) [illegible]00
☐ Mobile Labs, (800) ENSECO 8

CHAIN OF CUSTODY RECORD

Date 5-7-90 Page 1 of 1

Lab Number

CLIENT DAMES & MOORE

ADDRESS 9300 Tech Ctr Dr #100
SACTO, CA 95826

PROJECT NAME
UPRR - SACTO

CONTRACT / PURCHASE ORDER / QUOTE #
00173-054-044

PROJECT MANAGER
Jim Smith

PHONE NUMBER
916-364-8698

SITE CONTACT
Tim Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	600	601						Sample Condition/ REMARKS
HP-18-37	5/3/90	1015	B050290-1	✓			3	X							
HP-18-51	5/3/90	1130	-2	✓			3		X						

SAMPLERS: (Signature)
Tim PARKER

Relinquished by: (Signature)

Relinquished by: (Signature)
J Morris

Received by: (Signature)

Received by: (Signature)
Kay Russell

Date 5/3/90 Time 1200

Date 5/7/90 Time 1540

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Date 5/7/90 Time 1100 Received for Laboratory by:

Date RECEIVED	Time	Date ACCEPTED	Time

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

Page 1 of _____
File Index _____

Enseco

INTERLABORATORY ANALYSIS

SHIP TO: *(circle one)*

RMAL ERCO CLE GAS MAR HOU

Attention:

SEND RESULTS TO:
Enseco-Cal Lab
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393 FAC: (916) 372-1059

Attention:

CLIENT NAME

PROJECT NO.

Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Time

Import Lab ID	Enseco ID	Client ID	Matrix (a, s, w)	Date Sampled	Date Rec'd	Date Auth.	Analysis Requested/ P.L. Item #	Sample Condition Upon Receipt

a. Written results required by (date): _____ Verbal results required by (date): _____

b. QC: ☐ Standard Enseco ☐ CLP Protocol ☐ Project-Specific _____

c. Sample Disposal: ☐ Enseco ☐ Return to Client ☐ Phone CAL

d. Raw Data Copies Needed: ☐ Yes ☐ No

e. Detection Limits: ☐ Standard Product ☐ Other*

f. Holding Times: ☐ Enseco ☐ EPA-CLP ☐ Other*

g. *Special Instructions: _____

h. Intercompany Rebate: *(circle one)* 0% 5% 10% i. P.O. Number _____

Page ___ of ___
File Index ___

Enseco

INTERLABORATORY ANALYSIS

SHIP TO: *(circle one)*

RMAL ERCO CLE GAS MAR HOU

Attention:

SEND RESULTS TO:
Enseco-Cal Lab
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393 FAC: (916) 372-1059

Attention:

CLIENT NAME

PROJECT NO.

Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Time
Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Time

Import Lab ID	Enseco ID	Client ID	Matrix (a, s, w)	Date Sampled	Date Rec'd	Date Auth.	Analysis Requested/ P.L. Item #	Sample Condition Upon Receipt

a. Written results required by (date): _____ Verbal results required by (date): _____

b. QC: ☐ Standard Enseco ☐ CLP Protocol ☐ Project-Specific _____

c. Sample Disposal: ☐ Enseco ☐ Return to Client ☐ Phone CAL

d. Raw Data Copies Needed: ☐ Yes ☐ No

e. Detection Limits: ☐ Standard Product ☐ Other*

f. Holding Times: ☐ Enseco ☐ EPA-CLP ☐ Other*

g. *Special Instructions: _____

h. Intercompany Rebate: *(circle one)* 0% 5% 10%

i. P.O. Number _____

ACCUTEST
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4068

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916-364-8698
Address 1300 TECH CENTER DRIVE STE 100
City, State, Zip ACTO CA 1583
Client's or Representative's Signature Timothy L Park
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

PROJ. NO. 00173-054-044 PROJECT NAME UPRR - SACTO

SAMPLERS (Signature) Timothy L Park

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION / SAMPLE #	NO. OF CONTAINERS	601	602	REMARKS / LAB USE ONLY LAB NO.
HP-20	5/3/90	0730	-	-	HP-20-51	1	X		
HP-21	5/3/90	1040	-	-	HP-21-36	3	X		
HP-21	5/3/90	1115	-	-	HP-21-54	3	X		
HP-22	5/3/90	1315	-	-	HP-22-37	3	X	X	Samples voided per telecon 5/10
HP-22	5/3/90	1345	-	-	HP-22-55	3	X		
HP-23	5/3/90	1450	-	-	HP-23-37	3	X	X	
HP-23	5/3/90	1530	-	-	HP-23-55	3	X		

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Timothy L Park	5/3/90	2045	K. Hill
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Will call for results
on Monday 5/7/90
Turnaround 10

FIELD COPY

California Analytical
Laboratory

Enseco
A CORNING Company

Correction: samples were received on date indicated on analytical reports, not 4/23/90. J. Smith 5/30/90

May 29, 1990
Lab ID: 052516

Jim Smith
Dames & Moore
9300 Tech Center Drive
Suite 100
Sacramento, CA 95826

Dear Mr. Smith:

Enclosed is the report for the fifty-six aqueous samples for your UPRR-Sacto Project, under contract #00173-054-044, which were received at Enseco-Cal Lab on 23 April 1990.

The report consists of the following sections:

I Sample Description
II Analysis Request
III Quality Control Report
IV Analysis Results

If you have any questions, please feel free to call.

Sincerely,

Karla Saavedra

Karla Saavedra
Scientist

jl

Enseco Incorporated
2544 Industrial Boulevard
West Sacramento, California 95691
916/372-1393 Fax: 916/372-7768

Enseco
A CORNING Company

I Sample Description

See the attached Sample Description Information.

The samples were received under chain-of-custody.

II Analysis Request

The following analytical tests were requested.

Lab ID	Analysis Description
052516-1,2,4 thru 16,18 thru 25, 27 thru 34,36,39 thru 56	Halogenated Volatile Organics 50 601's
052516-1,2,5,8,9,12,14 thru 16, 18 thru 23,27 thru 34,36	Benzene, Toluene, Ethyl benzene, & Xylenes 24 BTXES
052516-1,3,6,42,44,46,51	Aromatic Volatile Organics 7 602's

III Quality Control

A. **Project Specific QC.** No project specific QC (i.e., spikes and/or duplicates) was requested.

B. **Method Blank Results.** A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

No target parameters were detected in the method blanks associated with your samples at the reporting limit levels noted on the attached Method Blank Report.

Repetitions of method blanks (with identical QC Lot No.s and Run No.s) have been reported but do not indicate unique determinations.

C. **Laboratory Control Samples - The LCS Program**

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The DCS results associated with your samples are on the attached Duplicate Control Sample Report.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS. The SCS results associated with your samples are on the attached Single Control Sample Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{\text{(measured concentration)}}{\text{(actual concentration)}} \times 100$$

Precision is measured using duplicate tests by Relative Percent Difference (RPD) as in:

$$\text{RPD} = \frac{\text{(\% recovery test 1 - \% recovery test 2)}}{\text{(\% recovery test 1 + \% recovery test 2)/2}} \times 100$$

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/-3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. In cases where there is not enough historical data, EPA limits or advisory limits are set, with the approval of the Quality Assurance department.

IV Analysis Results

Test methods may include minor modifications of published EPA Methods such as reporting limits or parameter lists. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis, i.e., no correction is made for moisture content, unless the method requires or the client requests that such correction be made.

Results are on the attached data sheets.

BTXE
+ 601

Enseco
A CORNING Company

SAMPLE DESCRIPTION INFORMATION
for
Dames & Moore

	Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
+	052516-0001-SA	MW-30	AQUEOUS	23 APR 90	08:35	23 APR 90
+	052516-0002-SA	MW-29	AQUEOUS	23 APR 90	09:10	23 APR 90
+	052516-0003-SA	HP-56	AQUEOUS	23 APR 90	14:45	23 APR 90
	052516-0004-SA	HP-4-42	AQUEOUS	24 APR 90	15:25	24 APR 90
	052516-0005-SA	HP-8-54	AQUEOUS	26 APR 90	12:30	26 APR 90
	052516-0006-SA	HP-18-37	AQUEOUS	02 MAY 90	10:15	02 MAY 90
	052516-0007-SA	HP-18-51	AQUEOUS	02 MAY 90	11:30	02 MAY 90
	052516-0008-SA	HP-19-57	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0009-SA	HP-19-38	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0010-SA	HP-14-37	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0011-SA	HP-14-48	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0012-SA	HP-13-36	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0013-SA	HP-13-51	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0014-SA	HP-12-49	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0015-SA	HP-12-38	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0016-SA	HP-11-50	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0017-SA	HP-11-40	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0018-SA	HP-11-36	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0019-SA	HP-10-48	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0020-SA	HP-10-35	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0021-SA	HP-9-54	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0022-SA	HP-9-36	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0023-SA	HP-8-36	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0024-SA	HP-7-48.25	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0025-SA	HP-7-37	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0026-SA	HP-6-53.5	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0027-SA	HP-6-37	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0028-SA	HP-5-56	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0029-SA	HP-5-42	AQUEOUS	02 MAY 90		02 MAY 90
+	052516-0030-SA	HP-4-36	AQUEOUS	02 MAY 90		02 MAY 90
+	052516-0031-SA	HP-3-57	AQUEOUS	02 MAY 90		02 MAY 90
+	052516-0032-SA	HP-3-36.5	AQUEOUS	02 MAY 90		02 MAY 90
+	052516-0033-SA	HP-2-52	AQUEOUS	02 MAY 90		02 MAY 90
+	052516-0034-SA	HP-2-36	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0035-SA	HP-1-56	AQUEOUS	02 MAY 90		02 MAY 90
+	052516-0036-SA	HP-1-36	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0037-SA	MW-29	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0038-SA	MW-30	AQUEOUS	02 MAY 90		02 MAY 90
	052516-0039-SA	HP-20-51	AQUEOUS	03 MAY 90	07:30	03 MAY 90
	052516-0040-SA	HP-21-36	AQUEOUS	03 MAY 90	10:40	03 MAY 90
	052516-0041-SA	HP-21-54	AQUEOUS	03 MAY 90	11:15	03 MAY 90
	052516-0042-SA	HP-22-37	AQUEOUS	03 MAY 90	13:15	03 MAY 90

Enseco
A CORNING Company

SAMPLE DESCRIPTION INFORMATION cont'd

for

Dames & Moore

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
052516-0043-SA	HP-22-55	AQUEOUS	03 MAY 90	13:45	03 MAY 90
052516-0044-SA	HP-23-37	AQUEOUS	03 MAY 90	14:50	03 MAY 90
052516-0045-SA	HP-23-55	AQUEOUS	03 MAY 90	15:30	03 MAY 90
052516-0046-SA	HP-20-37	AQUEOUS	04 MAY 90	07:30	04 MAY 90
052516-0047-SA	HP-24-40	AQUEOUS	04 MAY 90	10:40	04 MAY 90
052516-0048-SA	HP-24-50	AQUEOUS	04 MAY 90	11:40	04 MAY 90
052516-0049-SA	HP-25-37	AQUEOUS	04 MAY 90	15:00	04 MAY 90
052516-0050-SA	HP-25-54	AQUEOUS	04 MAY 90	15:35	04 MAY 90
052516-0051-SA	HP-15-51	AQUEOUS	01 MAY 90	08:00	01 MAY 90
052516-0052-SA	HP-16-36	AQUEOUS	01 MAY 90	11:30	01 MAY 90
052516-0053-SA	HP-16-54	AQUEOUS	01 MAY 90	12:30	01 MAY 90
052516-0054-SA	HP-17-37.5	AQUEOUS	01 MAY 90	15:30	01 MAY 90
052516-0055-SA	HP-17-47	AQUEOUS	01 MAY 90	16:10	01 MAY 90
052516-0056-SA	HP-17-54	AQUEOUS	01 MAY 90	16:50	01 MAY 90

Enseco
A CORNING Company

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
052516-0001-SA	AQUEOUS	601-A	20 APR 90-3A	23 APR 90-3A
052516-0001-SA	AQUEOUS	602-A	19 APR 90-11A	23 APR 90-11A
052516-0002-SA	AQUEOUS	601-A	20 APR 90-3A	23 APR 90-3A
052516-0003-SA	AQUEOUS	602-A	19 APR 90-11A	23 APR 90-11A
052516-0004-SA	AQUEOUS	601-A	24 APR 90-3A	25 APR 90-3A
052516-0005-SA	AQUEOUS	601-A	26 APR 90-38A	26 APR 90-38A
052516-0006-SA	AQUEOUS	602-A	03 MAY 90-3A	02 MAY 90-3A
052516-0007-SA	AQUEOUS	601-A	02 MAY 90-3A	02 MAY 90-3A
052516-0039-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0040-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0041-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0042-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0042-SA	AQUEOUS	602-A	08 MAY 90-11A	08 MAY 90-11A
052516-0043-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0044-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0044-SA	AQUEOUS	602-A	08 MAY 90-11A	08 MAY 90-11A
052516-0045-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0046-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0046-SA	AQUEOUS	602-A	08 MAY 90-11A	08 MAY 90-11A
052516-0047-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0048-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0049-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0050-SA	AQUEOUS	601-A	06 MAY 90-39A	07 MAY 90-39A
052516-0051-SA	AQUEOUS	601-A	01 MAY 90-A	24 APR 90-3A
052516-0051-SA	AQUEOUS	602-A	01 MAY 90-A	01 MAY 90-3A
052516-0052-SA	AQUEOUS	601-A	01 MAY 90-A	24 APR 90-3A
052516-0053-SA	AQUEOUS	601-A	01 MAY 90-A	24 APR 90-3A
052516-0054-SA	AQUEOUS	601-A	01 MAY 90-A	24 APR 90-3A
052516-0055-SA	AQUEOUS	601-A	01 MAY 90-A	24 APR 90-3A
052516-0056-SA	AQUEOUS	601-A	01 MAY 90-A	24 APR 90-3A

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METHOD BLANK REPORT
Volatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 20 APR 90-3A QC Run: 23 APR 90-3A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 19 APR 90-11A QC Run: 23 APR 90-11A			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 19 APR 90-11A QC Run: 23 APR 90-11A			
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 20 APR 90-3A QC Run: 23 APR 90-3A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 19 APR 90-11A QC Run: 23 APR 90-11A			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 24 APR 90-3A QC Run: 25 APR 90-3A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Test: 601-A
Matrix: AQUEOUS
QC Lot: 24 APR 90-3A QC Run: 25 APR 90-3A

Test: 601-A
Matrix: AQUEOUS
QC Lot: 26 APR 90-38A QC Run: 26 APR 90-38A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 03 MAY 90-3A QC Run: 02 MAY 90-3A			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 02 MAY 90-3A QC Run: 02 MAY 90-3A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 601-A Matrix: AQUEOUS QC Lot: 02 MAY 90-3A QC Run: 02 MAY 90-3A			
Test: 601-A Matrix: AQUEOUS QC Lot: 06 MAY 90-39A QC Run: 07 MAY 90-39A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 06 MAY 90-39A QC Run: 07 MAY 90-39A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 08 MAY 90-11A QC Run: 08 MAY 90-11A			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0

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METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 602-A			
Matrix: AQUEOUS			
QC Lot: 08 MAY 90-11A QC Run: 08 MAY 90-11A			
Test: 601-A			
Matrix: AQUEOUS			
QC Lot: 01 MAY 90-A QC Run: 24 APR 90-3A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

METHOD BLANK REPORT
Volatile Organics by GC (cont.)

Analyte	Result	Units	Reporting Limit
Test: 602-A Matrix: AQUEOUS QC Lot: 01 MAY 90-A QC Run: 01 MAY 90-3A			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
Test: 601-A Matrix: AQUEOUS QC Lot: 01 MAY 90-A QC Run: 24 APR 90-3A			
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Category: 601-A Matrix: AQUEOUS QC Lot: 20 APR 90-3A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	5.27	4.85	5.06	101	70-138	8.3	24
Chloroform	5.0	5.04	4.75	4.90	98	83-124	5.9	18
Bromodichloromethane	10.0	10.4	10.3	10.4	104	78-132	1.0	21
Trichloroethene	5.0	4.82	4.73	4.78	96	82-122	1.9	16
Chlorobenzene	5.0	4.50	4.40	4.45	89	80-126	2.2	19
Category: 602-A Matrix: AQUEOUS QC Lot: 19 APR 90-11A Concentration Units: ug/L								
Benzene	5.0	5.27	5.42	5.34	107	82-112	2.8	11
Toluene	5.0	5.29	5.31	5.30	106	81-114	0.4	13
1,3-Dichlorobenzene	5.0	5.29	4.98	5.14	103	68-124	6.0	13
Ethyl benzene	5.0	5.18	5.21	5.20	104	73-117	0.6	1
Xylenes (total)	15.0	15.9	16.0	16.0	106	75-120	0.6	10
Category: 601-A Matrix: AQUEOUS QC Lot: 24 APR 90-3A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	5.23	5.15	5.19	104	70-138	1.5	24
Chloroform	5.0	5.36	5.36	5.36	107	83-124	0.0	18
Bromodichloromethane	10.0	11.3	11.4	11.4	114	78-132	0.9	21
Trichloroethene	5.0	5.14	5.15	5.14	103	82-122	0.2	16
Chlorobenzene	5.0	4.92	4.89	4.90	98	80-126	0.6	19
Category: 601-A Matrix: AQUEOUS QC Lot: 26 APR 90-38A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	4.95	5.02	4.98	100	70-138	1.4	24
Chloroform	5.0	5.21	5.26	5.24	105	83-124	1.0	18
Bromodichloromethane	10.0	10.5	10.6	10.6	106	78-132	0.9	21
Trichloroethene	5.0	4.59	4.44	4.52	90	82-122	3.3	16

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC (cont.)

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Category: 601-A Matrix: AQUEOUS QC Lot: 26 APR 90-38A Concentration Units: ug/L								
Chlorobenzene	5.0	4.91	4.91	4.91	98	80-126	0.0	19
Category: 602-A Matrix: AQUEOUS QC Lot: 03 MAY 90-3A Concentration Units: ug/L								
Benzene	5.0	4.97	4.58	4.78	96	82-112	8.2	11
Toluene	5.0	4.74	4.50	4.62	92	81-114	5.2	13
1,3-Dichlorobenzene	5.0	4.62	4.31	4.46	89	68-124	6.9	13
Ethyl benzene	5.0	4.77	4.44	4.60	92	73-117	7.2	11
Xylenes (total)	15.0	14.3	13.1	13.7	91	75-120	8.8	10
Category: 601-A Matrix: AQUEOUS QC Lot: 02 MAY 90-3A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	5.36	4.23	4.80	96	70-138	24	24
Chloroform	5.0	5.34	5.07	5.20	104	83-124	5.2	18
Bromodichloromethane	10.0	10.5	10.8	10.6	107	78-132	2.8	21
Trichloroethene	5.0	4.99	4.97	4.98	100	82-122	0.4	16
Chlorobenzene	5.0	5.50	5.50	5.50	110	80-126	0.0	19
Category: 601-A Matrix: AQUEOUS QC Lot: 06 MAY 90-39A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	5.27	5.62	5.44	109	70-138	6.4	24
Chloroform	5.0	4.79	5.12	4.96	99	83-124	6.7	18
Bromodichloromethane	10.0	10.3	10.7	10.5	105	78-132	3.8	21
Trichloroethene	5.0	4.23	4.50	4.36	87	82-122	6.2	16
Chlorobenzene	5.0	5.04	5.20	5.12	102	80-126	3.1	19

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC (cont.)

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Category: 602-A Matrix: AQUEOUS QC Lot: 08 MAY 90-11A Concentration Units: ug/L								
Benzene	5.0	4.72	5.01	4.86	97	82-112	6.0	11
Toluene	5.0	4.93	5.08	5.00	100	81-114	3.0	13
1,3-Dichlorobenzene	5.0	4.74	5.04	4.89	98	68-124	6.1	13
Ethyl benzene	5.0	5.09	5.26	5.18	104	73-117	3.3	11
Xylenes (total)	15.0	14.9	15.2	15.0	100	75-120	2.0	10
Category: 601-A Matrix: AQUEOUS QC Lot: 01 MAY 90-A Concentration Units: ug/L								
1,1-Dichloroethane	5.0	5.23	5.15	5.19	104	70-138	1.5	24
Chloroform	5.0	5.36	5.36	5.36	107	83-124	0.0	18
Bromodichloromethane	10.0	11.3	11.4	11.4	114	78-132	0.9	21
Trichloroethene	5.0	5.14	5.15	5.14	103	82-122	0.2	16
Chlorobenzene	5.0	4.92	4.89	4.90	98	80-126	0.6	19
Category: 602-A Matrix: AQUEOUS QC Lot: 01 MAY 90-A Concentration Units: ug/L								
Benzene	5.0	4.74	4.64	4.69	94	82-112	2.1	11
Toluene	5.0	4.91	4.83	4.87	97	81-114	1.6	13
1,3-Dichlorobenzene	5.0	4.55	4.52	4.54	91	68-124	0.7	13
Ethyl benzene	5.0	4.64	4.62	4.63	93	73-117	0.4	11
Xylenes (total)	15.0	14.7	14.3	14.5	97	75-120	2.8	10

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 601-A Matrix: AQUEOUS QC Lot: 20 APR 90-3A QC Run: 23 APR 90-3A Concentration Units: ug/L				
Bromochloromethane	5.00	4.53	91	68-121
Category: 602-A Matrix: AQUEOUS QC Lot: 19 APR 90-11A QC Run: 23 APR 90-11A Concentration Units: ug/L				
a,a,a-Trifluorotoluene	5.00	4.15	83	20-160
Category: 601-A Matrix: AQUEOUS QC Lot: 24 APR 90-3A QC Run: 25 APR 90-3A Concentration Units: ug/L				
Bromochloromethane	5.00	3.89	78	68-121
Category: 601-A Matrix: AQUEOUS QC Lot: 26 APR 90-38A QC Run: 26 APR 90-38A Concentration Units: ug/L				
Bromochloromethane	5.00	3.66	73	68-121
Category: 602-A Matrix: AQUEOUS QC Lot: 03 MAY 90-3A QC Run: 02 MAY 90-3A Concentration Units: ug/L				
a,a,a-Trifluorotoluene	5.00	4.94	99	20-160

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC (cont.)

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 601-A Matrix: AQUEOUS QC Lot: 02 MAY 90-3A QC Run: 02 MAY 90-3A Concentration Units: ug/L				
Bromochloromethane	5.00	4.59	92	68-121
Category: 601-A Matrix: AQUEOUS QC Lot: 06 MAY 90-39A QC Run: 07 MAY 90-39A Concentration Units: ug/L				
Bromochloromethane	5.00	4.28	86	68-121
Category: 602-A Matrix: AQUEOUS QC Lot: 08 MAY 90-11A QC Run: 08 MAY 90-11A Concentration Units: ug/L				
a,a,a-Trifluorotoluene	5.00	4.36	87	20-160
Category: 601-A Matrix: AQUEOUS QC Lot: 01 MAY 90-A QC Run: 24 APR 90-3A Concentration Units: ug/L				
Bromochloromethane	5.00	4.80	96	68-121
Category: 602-A Matrix: AQUEOUS QC Lot: 01 MAY 90-A QC Run: 01 MAY 90-3A Concentration Units: ug/L				
a,a,a-Trifluorotoluene	5.00	4.25	85	20-160

Calculations are performed before rounding to avoid round-off errors in calculated results.

Enseco
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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: MW-30
Lab ID: 052516-0001-SA Enseco ID: 146448
Matrix: AQUEOUS Sampled: 23 APR 90 Received: 23 APR 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 23 APR 90

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	50	R
Bromomethane	ND	ug/L	50	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	50	
Methylene chloride	ND	ug/L	50	
1,1-Dichloroethene	350	ug/L	5.0	
1,1-Dichloroethane	12	ug/L	5.0	
1,2-Dichloroethene (cis/trans)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	100	
1,2-Dichloroethane	ND	ug/L	10	
1,1,1-Trichloroethane	26	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Bromodichloromethane	ND	ug/L	10	
1,2-Dichloropropane	ND	ug/L	10	
trans-1,3-Dichloropropene	ND	ug/L	10	
Trichloroethene	7.6	ug/L	5.0	
Dibromochloromethane	ND	ug/L	10	
cis-1,3-Dichloropropene	ND	ug/L	20	
1,1,2-Trichloroethane	ND	ug/L	10	
1,2-Dibromoethane	ND	ug/L	20	
Bromoform	ND	ug/L	50	
1,1,2,2-Tetrachloroethane	ND	ug/L	10	
Tetrachloroethene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	20	
Bromochloromethane	98	%	--	

Note R : Raised reporting limit(s) due to high analyte level(s).

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

The cover letter is an integral part of this report.
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Enseco
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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: MW-29
Lab ID: 052516-0002-SA Enseco ID: 146449
Matrix: AQUEOUS Sampled: 23 APR 90 Received: 23 APR 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 23 APR 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	54	ug/L	0.50
1,1-Dichloroethane	6.2	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	1.2	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	14	ug/L	1.0
1,1,1-Trichloroethane	4.9	ug/L	0.50
Carbon tetrachloride	0.95	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	0.87	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	95	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-4-42
Lab ID: 052516-0004-SA Enseco ID: 146698
Matrix: AQUEOUS Sampled: 24 APR 90 Received: 24 APR 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 25 APR 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	1.1	ug/L	0.50
1,1-Dichloroethane	4.4	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	0.66	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	8.3	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	93	%	--

ND = Not detected
NA = Not applicable

Reported By: Armindo Barbosa Approved By: Jon Edmondson

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-8-54
Lab ID: 052516-0005-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 146849
Sampled: 26 APR 90
Prepared: NA

Received: 26 APR 90
Analyzed: 27 APR 90

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	50	R
Bromomethane	ND	ug/L	50	
Vinyl chloride	ND	ug/L	10	
Chloroethane	ND	ug/L	50	
Methylene chloride	ND	ug/L	50	
1,1-Dichloroethene	450	ug/L	5.0	
1,1-Dichloroethane	7.2	ug/L	5.0	
1,2-Dichloroethene (cis/trans)	ND	ug/L	5.0	
Chloroform	ND	ug/L	5.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	10	
1,2-Dichloroethane	ND	ug/L	10	
1,1,1-Trichloroethane	25	ug/L	5.0	
Carbon tetrachloride	ND	ug/L	5.0	
Bromodichloromethane	ND	ug/L	10	
1,2-Dichloropropane	ND	ug/L	10	
trans-1,3-Dichloropropene	ND	ug/L	10	
Trichloroethene	ND	ug/L	5.0	
Dibromochloromethane	ND	ug/L	10	
cis-1,3-Dichloropropene	ND	ug/L	20	
1,1,2-Trichloroethane	ND	ug/L	10	
1,2-Dibromoethane	ND	ug/L	20	
Bromoform	ND	ug/L	50	
1,1,2,2-Tetrachloroethane	ND	ug/L	10	
Tetrachloroethene	ND	ug/L	5.0	
Chlorobenzene	ND	ug/L	20	
Bromochloromethane	95	%	--	

Note R : Raised reporting limit(s) due to high analyte level(s).

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Sharon Campbell

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-18-51
Lab ID: 052516-0007-SA Enseco ID: 147566
Matrix: AQUEOUS Sampled: 02 MAY 90 Received: 02 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 02 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	45	ug/L	0.50
1,1-Dichloroethane	1.7	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	2.9	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	4.0	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	91	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-20-51
Lab ID: 052516-0039-SA Enseco ID: 147916
Matrix: AQUEOUS Sampled: 03 MAY 90 Received: 03 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	1.6	ug/L	0.50
1,1-Dichloroethane	0.73	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	1.1	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	82	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-21-36
Lab ID: 052516-0040-SA Enseco ID: 147917
Matrix: AQUEOUS Sampled: 03 MAY 90 Received: 03 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	2.1	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	102	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-21-54
Lab ID: 052516-0041-SA Enseco ID: 147918
Matrix: AQUEOUS Sampled: 03 MAY 90 Received: 03 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	52	ug/L	0.50
1,1-Dichloroethane	3.4	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	3.9	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	1.3	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	86	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-22-37
Lab ID: 052516-0042-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 147919
Sampled: 03 MAY 90
Prepared: NA

Received: 03 MAY 90
Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	1.3	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	73	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-22-55
Lab ID: 052516-0043-SA
Enseco ID: 147920
Matrix: AQUEOUS
Sampled: 03 MAY 90
Received: 03 MAY 90
Authorized: 23 APR 90
Prepared: NA
Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	69	ug/L	0.50
1,1-Dichloroethane	8.1	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	5.8	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	8.3	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	0.55	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	91	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf
Approved By: Marcia Reed

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Enseco
A CORNING Company

Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-23-37
Lab ID: 052516-0044-SA Enseco ID: 147921
Matrix: AQUEOUS Sampled: 03 MAY 90 Received: 03 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	2.1	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	0.63	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	80	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Enseco
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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-23-55
Lab ID: 052516-0045-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 147922
Sampled: 03 MAY 90
Prepared: NA

Received: 03 MAY 90
Analyzed: 07 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	8.0	ug/L	0.50
1,1-Dichloroethane	2.0	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	1.4	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	1.6	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	88	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-20-37
Lab ID: 052516-0046-SA
Enseco ID: 147968
Matrix: AQUEOUS
Sampled: 04 MAY 90
Received: 04 MAY 90
Authorized: 23 APR 90
Prepared: NA
Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	4.5	ug/L	0.50
1,1-Dichloroethane	1.4	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	86	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf
Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-24-40
Lab ID: 052516-0047-SA
Enseco ID: 147969
Matrix: AQUEOUS
Sampled: 04 MAY 90
Received: 04 MAY 90
Authorized: 23 APR 90
Prepared: NA
Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	0.56	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	71	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf
Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-24-50
Lab ID: 052516-0048-SA Enseco ID: 147970
Matrix: AQUEOUS Sampled: 04 MAY 90 Received: 04 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	1.8	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	92	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-25-37
Lab ID: 052516-0049-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 147971
Sampled: 04 MAY 90
Prepared: NA

Received: 04 MAY 90
Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	2.1	ug/L	0.50
1,1-Dichloroethane	0.51	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	1.1	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	1.6	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	98	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-25-54
Lab ID: 052516-0050-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 147972
Sampled: 04 MAY 90
Prepared: NA

Received: 04 MAY 90
Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	44	ug/L	0.50
1,1-Dichloroethane	5.6	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	3.8	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	9.4	ug/L	1.0
1,1,1-Trichloroethane	4.7	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	90	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Marcia Reed

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-15-51
Lab ID: 052516-005I-SA Enseco ID: 148427
Matrix: AQUEOUS Sampled: 01 MAY 90 Received: 01 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 02 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	9.6	ug/L	0.50
1,1-Dichloroethane	3.9	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	92	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-16-36
Lab ID: 052516-0052-SA Enseco ID: 148428
Matrix: AQUEOUS Sampled: 01 MAY 90 Received: 01 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 02 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	9.5	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	1.4	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	1.2	ug/L	0.50
Carbon tetrachloride	0.79	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	96	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Enseco
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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-16-54
Lab ID: 052516-0053-SA Enseco ID: 148429
Matrix: AQUEOUS Sampled: 01 MAY 90 Received: 01 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 01 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	270	ug/L	0.50
1,1-Dichloroethane	8.4	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	1.6	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	1.1	ug/L	1.0
1,1,1-Trichloroethane	34	ug/L	0.50
Carbon tetrachloride	0.56	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	3.8	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	97	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-17-37.5
Lab ID: 052516-0054-SA Enseco ID: 148430
Matrix: AQUEOUS Sampled: 01 MAY 90 Received: 01 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 02 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	1.0	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	11	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	94	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-17-47 ✓
Lab ID: 052516-0055-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 148431
Sampled: 01 MAY 90
Prepared: NA

Received: 01 MAY 90
Analyzed: 01 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	99	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Jon Edmondson

The cover letter is an integral part of this report.
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Enseco
A CORNING Company

Halogenated Volatile Organics

Method 601

Client Name: Dames & Moore
Client ID: HP-17-54
Lab ID: 052516-0056-SA Enseco ID: 148432
Matrix: AQUEOUS Sampled: 01 MAY 90 Received: 01 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 01 MAY 90

Parameter	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	5.0
Bromomethane	ND	ug/L	5.0
Vinyl chloride	ND	ug/L	1.0
Chloroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethene (cis/trans)	ND	ug/L	0.50
Chloroform	ND	ug/L	0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1,1-Trichloroethane	ND	ug/L	0.50
Carbon tetrachloride	ND	ug/L	0.50
Bromodichloromethane	ND	ug/L	1.0
1,2-Dichloropropane	ND	ug/L	1.0
trans-1,3-Dichloropropene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	0.50
Dibromochloromethane	ND	ug/L	1.0
cis-1,3-Dichloropropene	ND	ug/L	2.0
1,1,2-Trichloroethane	ND	ug/L	1.0
1,2-Dibromoethane	ND	ug/L	2.0
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	2.0
Bromochloromethane	105	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Enseco
A CORNING Company

Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: MW-30
Lab ID: 052516-0001-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 146448
Sampled: 23 APR 90
Prepared: NA

Received: 23 APR 90
Analyzed: 23 APR 90

Parameter	Result	Units	Reporting Limit
Benzene	1.1	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	110	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Jon Edmondson

The cover letter is an integral part of this report.
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Enseco
A CORNING Company

HP-1-56

Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-56
Lab ID: 052516-0003-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 146450
Sampled: 23 APR 90
Prepared: NA

Received: 23 APR 90
Analyzed: 23 APR 90

Parameter	Result	Units	Reporting Limit
Benzene	0.59	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	97	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Jon Edmondson

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Enseco
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Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-18-37
Lab ID: 052516-0006-SA Enseco ID: 147565
Matrix: AQUEOUS Sampled: 02 MAY 90 Received: 02 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 01 MAY 90

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	95	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-22-37
Lab ID: 052516-0042-SA Enseco ID: 147919
Matrix: AQUEOUS Sampled: 03 MAY 90 Received: 03 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	100	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-23-37
Lab ID: 052516-0044-SA Enseco ID: 147921
Matrix: AQUEOUS Sampled: 03 MAY 90 Received: 03 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	105	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Marcia Reed

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Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-20-37
Lab ID: 052516-0046-SA
Matrix: AQUEOUS
Authorized: 23 APR 90

Enseco ID: 147968
Sampled: 04 MAY 90
Prepared: NA

Received: 04 MAY 90
Analyzed: 08 MAY 90

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	102	%	

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Marcia Reed

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Aromatic Volatile Organics

Method 602

Client Name: Dames & Moore
Client ID: HP-15-51
Lab ID: 052516-0051-SA Enseco ID: 148427
Matrix: AQUEOUS Sampled: 01 MAY 90 Received: 01 MAY 90
Authorized: 23 APR 90 Prepared: NA Analyzed: 01 MAY 90

Parameter	Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Ethyl benzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	1.0
1,3-Dichlorobenzene	ND	ug/L	1.0
1,4-Dichlorobenzene	ND	ug/L	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0
a,a,a-Trifluorotoluene	82	%	--

ND = Not detected
NA = Not applicable

Reported By: Lisa Weiskopf Approved By: Jon Edmondson

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8-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B432
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B050290-001/004.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

REVIEWED AND APPROVED

5-8-90
DATE

The Report Cover Letter is an integral part of this report.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Project: UPRR - SACTO

Analysis No.: M-B050290-003/004
Date Sampled: 2-MAY-1990
Date Sample Rec'd: 2-MAY-1990
Date Analyzed: 2-MAY-1990
Sample Type: LIQUID

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
HP-19-38	14000.	1500.	1500.	3800.
HP-19-~~54~~ 57 ~~KSS~~ 5/29/90	3.	2.	ND(1.)	ND(1.)
Blank	ND(1.)	ND(1.)	ND(1.)	ND(1.)

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B050290-001
Date Sampled: 2-MAY-1990
Date Sample Rec'd: 2-MAY-1990
Date Analyzed: 2-MAY-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-18-37

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1
1,1-Dichloroethane	ND	ND	1
Chloroform	ND	ND	1
1,2-Dichloroethane	ND	ND	1
1,1,1-Trichloroethane	ND	ND	1
Carbon Tetrachloride	ND	ND	1
Trichloroethene	ND	ND	1
Tetrachloroethene	ND	ND	1

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B050290-002
Date Sampled: 2-MAY-1990
Date Sample Rec'd: 2-MAY-1990
Date Analyzed: 2-MAY-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-18-51

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	79.	ND	1.
1,1-Dichloroethane	2.	ND	1.
Chloroform	4.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	5.	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B050290-003
Date Sampled: 2-MAY-1990
Date Sample Rec'd: 2-MAY-1990
Date Analyzed: 2-MAY-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-19-38

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	170.	ND	50
1,1-Dichloroethane	50.	ND	50
Chloroform	ND	ND	50
1,2-Dichloroethane	210.	ND	50
1,1,1-Trichloroethane	ND	ND	50
Carbon Tetrachloride	ND	ND	50
Trichloroethene	ND	ND	50
Tetrachloroethene	ND	ND	50

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B050290-004
Date Sampled: 2-MAY-1990
Date Sample Rec'd: 2-MAY-1990
Date Analyzed: 2-MAY-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-19-~~54~~ 53 ~~KSS~~ 5/29/90

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	230.	ND	1
1,1-Dichloroethane	11.	ND	1
Chloroform	ND	ND	1
1,2-Dichloroethane	ND	ND	1
1,1,1-Trichloroethane	14.	ND	1
Carbon Tetrachloride	ND	ND	1
Trichloroethene	1.	ND	1
Tetrachloroethene	ND	ND	1

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B050290-001/004
Date Sampled: 2-MAY-1990
Date Sample Rec'd: 2-MAY-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
2-MAY-1990	1,1-DICHLOROETHENE (EPA 601)	M	105	60-132	4.	40
2-MAY-1990	1,1-DICHLOROETHANE (EPA 601)	M	105	59-132	1.	41
2-MAY-1990	CHLOROFORM (EPA 601)	M	104	60-132	2.	40
2-MAY-1990	1,2-DICHLOROETHANE (EPA 601)	M	100	60-132	1.	40
2-MAY-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	107	59-132	1.	41
2-MAY-1990	CARBON TETRACHLORIDE (EPA 601)	M	107	60-132	1.	40
2-MAY-1990	TRICHLOROETHENE (EPA 601)	M	105	60-132	2.	40
2-MAY-1990	TETRACHLOROETHENE (EPA 601)	M	105	60-132	0.	40
2-MAY-1990	BENZENE (EPA 602)	M	99	21-156	1.	30
2-MAY-1990	TOLUENE (EPA 602)	M	100	70-123	1.	30
2-MAY-1990	ETHYLBENZENE (EPA 602)	M	100	57-129	2.	30
2-MAY-1990	XYLENES, TOTAL (EPA 602)	M	99	65-123	2.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date May 2 Page 1 of 1

Lab Number

CLIENT DAMES & MOORE
ADDRESS 9300 TECH CENTER DR. #100
SACTO, CA 95826
PROJECT NAME
UPRR - SACTO
CONTRACT / PURCHASE ORDER / QUOTE #
00173-054-044

PROJECT MANAGER
JIM SMITH
PHONE NUMBER
916-364-8698
SITE CONTACT
TIM PARKER

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 - TARGETS	602						Sample Condition/ REMARKS
HP-18-37	5/2/90	1015	B050190-1	✓			3	X							602 - Stationary Lab
HP-18-51	5/2/90	1130	-2	✓			3	X							601 - Stationary Lab
HP-19-38	5/2/90	1330	-3	✓			3	X	X						
HP-19-54	5/2/90	1430	-4	✓			3	X	X						

SAMPLERS: (Signature)

Received by: (Signature)	Date	Time	The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.
Relinquished by: (Signature)			
Received by: (Signature)	Date	Time	

Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
				5/3/90	As Sampled		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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9-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B430
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B043090-001/006.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

Pat Kunnen
REVIEWED AND APPROVED

5-10-90
DATE

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-001/003
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
HP-12-38	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-12-49	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-13-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
Blank	ND(1.)	ND(2.)	ND(1.)	ND(1.)

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-001
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-12-38

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	23.	ND	1
1,1-Dichloroethane	5.	ND	1
Chloroform	ND	ND	1
1,2-Dichloroethane	ND	ND	1
1,1,1-Trichloroethane	ND	ND	1
Carbon Tetrachloride	ND	ND	1
Trichloroethene	ND	ND	1
Tetrachloroethene	ND	ND	1

The Report Cover Letter is an integral part of this report.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-002
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-12-49

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	14.	ND	1.
1,1-Dichloroethane	2.	ND	1.
Chloroform	ND	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-003
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-13-36

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	2.	ND	1.
1,1-Dichloroethane	ND	ND	1.
Chloroform	ND	ND	1.
1,2-Dichloroethane	2.	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-004
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-13-51

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	320.	ND	1
1,1-Dichloroethane	10.	ND	1
Chloroform	7.	ND	1
1,2-Dichloroethane	2.	ND	1
1,1,1-Trichloroethane	27.	ND	1
Carbon Tetrachloride	ND	ND	1
Trichloroethene	4.	ND	1
Tetrachloroethene	ND	ND	1

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-005
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-14-37

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	14.	ND	1.
1,1-Dichloroethane	ND	ND	1.
Chloroform	2.	ND	1.
1,2-Dichloroethane	2.	ND	1.
1,1,1-Trichloroethane	1.	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B043090-006
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Date Analyzed: 30-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-14-48

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	240.	ND	1.
1,1-Dichloroethane	16.	ND	1.
Chloroform	3.	ND	1.
1,2-Dichloroethane	5.	ND	1.
1,1,1-Trichloroethane	32.	ND	1.
Carbon Tetrachloride	2.	ND	1.
Trichloroethene	5.	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B043090-001/006
Date Sampled: 30-APR-1990
Date Sample Rec'd: 30-APR-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
30-APR-1990	1,1-DICHLOROETHENE (EPA 601)	M	111	60-132	9.	40
30-APR-1990	1,1-DICHLOROETHANE (EPA 601)	M	109	59-132	9.	41
30-APR-1990	CHLOROFORM (EPA 601)	M	106	60-132	10.	40
30-APR-1990	1,2-DICHLOROETHANE (EPA 601)	M	100	60-132	11.	40
30-APR-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	107	59-132	8.	41
30-APR-1990	CARBON TETRACHLORIDE (EPA 601)	M	111	60-132	5.	40
30-APR-1990	TRICHLOROETHENE (EPA 601)	M	111	60-132	1.	40
30-APR-1990	TETRACHLOROETHENE (EPA 601)	M	110	60-132	3.	40
30-APR-1990	BENZENE (EPA 602)	M	96	21-156	2.	30
30-APR-1990	TOLUENE (EPA 602)	M	97	70-123	1.	30
30-APR-1990	ETHYLBENZENE (EPA 602)	M	94	57-129	3.	30
30-APR-1990	XYLENES, TOTAL (EPA 602)	M	92	65-123	4.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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[ ] 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
[ ] 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
[ ] Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 4/30/90 Page 1 of 1

Lab Number _____

CLIENT DAMES & MOORE
ADDRESS 9300 TECH CENTER DR. #100
SACTO 95826
PROJECT NAME
UPRR - SACTO
CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER
JIM SMITH
PHONE NUMBER
916-364-8698
SITE CONTACT
TIM PARKER

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	ANALYSES 601 TARGETED	602						Sample Condition/ REMARKS
HP-12-38	4/30/90	0845	B043090-1	✓			3	X	X						
HP-12-49	4/30/90	1010	2	✓			3	X	X						
HP-13-36	4/30/90	1305	3	✓			3	X	X						
HP-13-51	4/30/90	1345	4	✓			3	X							
HP-14-37	4/30/90	1505	5	✓			3	X							
HP-14-48	4/30/90	1610	6	✓			3	X							

SAMPLERS: (Signature)

Received by: (Signature)		Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date	RECEIVED	Time	Date	ACCEPTED	Time
			Gary Buchanan	4/30/90	As Sampled				

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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FAX: (714) 893-6709

2-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B429
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B042790-001/005.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

Dat Kammeyer
REVIEWED AND APPROVED

5-2-90
DATE

The Report Cover Letter is an integral part of this report.
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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Project: UPRR - SACTO

Analysis No.: M-B042790-001/005
Date Sampled: 27-APR-1990
Date Sample Rec'd: 27-APR-1990
Date Analyzed: 27-APR-1990
Sample Type: LIQUID

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
HP-10-35	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-10-48	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-11-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-11-50	ND(1.)	ND(2.)	ND(1.)	ND(1.)
Blank	ND(1.)	ND(2.)	ND(1.)	ND(1.)

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042790-001
Date Sampled: 27-APR-1990
Date Sample Rec'd: 27-APR-1990
Date Analyzed: 27-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-10-35

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,1-Dichloroethane	ND	ND	1.
Chloroform	ND	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042790-002
Date Sampled: 27-APR-1990
Date Sample Rec'd: 27-APR-1990
Date Analyzed: 27-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-10-48

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	2.	ND	1
1,1-Dichloroethane	2.	ND	1
Chloroform	ND	ND	1
1,2-Dichloroethane	ND	ND	1
1,1,1-Trichloroethane	ND	ND	1
Carbon Tetrachloride	ND	ND	1
Trichloroethene	ND	ND	1
Tetrachloroethene	ND	ND	1

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042790-003
Date Sampled: 27-APR-1990
Date Sample Rec'd: 27-APR-1990
Date Analyzed: 27-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-11-36

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,1-Dichloroethane	ND	ND	1.
Chloroform	13.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042790-005
Date Sampled: 27-APR-1990
Date Sample Rec'd: 27-APR-1990
Date Analyzed: 27-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-11-50

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,1-Dichloroethane	ND	ND	1.
Chloroform	1.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Carbon Tetrachloride	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B042790-001/004
Date Sampled: 27-APR-1990
Date Sample Rec'd: 27-APR-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
27-APR-1990	1,1-DICHLOROETHENE (EPA 601)	M	109	60-132	8.	40
27-APR-1990	1,1-DICHLOROETHANE (EPA 601)	M	110	59-132	8.	41
27-APR-1990	CHLOROFORM (EPA 601)	M	108	60-132	8.	40
27-APR-1990	1,2-DICHLOROETHANE (EPA 601)	M	91	60-132	15.	40
27-APR-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	111	59-132	6.	41
27-APR-1990	CARBON TETRACHLORIDE (EPA 601)	M	108	60-132	6.	40
27-APR-1990	TRICHLOROETHENE (EPA 601)	M	106	60-132	6.	40
27-APR-1990	TETRACHLOROETHENE (EPA 601)	M	108	60-132	7.	40
27-APR-1990	BENZENE (EPA 602)	M	101	21-156	1.	30
27-APR-1990	TOLUENE (EPA 602)	M	99	57-129	2.	30
27-APR-1990	ETHYLBENZENE (EPA 602)	M	94	70-123	5.	30
27-APR-1990	XYLENES, TOTAL (EPA 602)	M	94	65-123	2.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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Mobile Labs, (800) ENSECO-8

Date 4/27/90 Page 1 of 1
Lab Number

CLIENT Dames & Moore
ADDRESS 9300 Tech Center Drive Ste 100
Sacto 95826
PROJECT NAME
UPRR - Sacto
CONTRACT / PURCHASE ORDER / QUOTE #
00173-054-044

PROJECT MANAGER
Jim Smith
PHONE NUMBER
916-364-8695
SITE CONTACT
Tim Parker

ANALYSES: 601 + TPH(GAS) and 602

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 + TPH(GAS)	602	Sample Condition/ REMARKS
HP-10-35	4/27/90	0925	BC4277C-1	✓			3	X	X	
HP-10-48	4/27/90	1055	-2	✓			3	X	X	
HP-11-36	4/27/90	1330	-3	✓			3	X	X	
HP-11-40	4/27/90	1400	-4	✓			3			Hold
HP-11-50	4/27/90	1435	-5	✓			3	X	X	

SAMPLERS: (Signature) Timothy K Klark
Relinquished by: (Signature) Timothy K Klark
Relinquished by: (Signature)

Received by: (Signature) — Date — Time
Received by: (Signature) — Date — Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature) — Date — Time
Received for Laboratory by: Mary Beckman
Date RECEIVED 4/27/90 Time As Sampled
Date ACCEPTED — Time

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

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2-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B428
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B042690-001/006.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

Dat Kammeyer
REVIEWED AND APPROVED

5-7-90
DATE

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-003/006
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
HP-8-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-8-54	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-9-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-9-54	ND(1.)	ND(2.)	ND(1.)	ND(1.)
Blank	ND(1.)	ND(2.)	ND(1.)	ND(1.)

The Report Cover Letter is an integral part of this report.

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-001
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-7-37

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	5.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-002
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-7-48.25

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	20.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	2.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-003
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-8-36

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,2-Dichloroethane	1.	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-004
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-8-54

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	410.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	35.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-005
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-9-36

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	17.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	2.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042690-006
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Date Analyzed: 26-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-9-54

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B042690-001/006
Date Sampled: 26-APR-1990
Date Sample Rec'd: 26-APR-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
26-APR-1990	1,1-DICHLOROETHENE (EPA 601)	M	119	60-132	3.	40
26-APR-1990	1,2-DICHLOROETHANE (EPA 601)	M	124	60-132	5.	40
26-APR-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	120	59-132	8.	41
26-APR-1990	TRICHLOROETHENE (EPA 601)	M	114	60-132	3.	40
26-APR-1990	TETRACHLOROETHENE (EPA 601)	M	109	60-132	1.	40
26-APR-1990	BENZENE (EPA 602)	M	98	21-156	2.	30
26-APR-1990	TOLUENE (EPA 602)	M	97	57-129	2.	30
26-APR-1990	ETHYLBENZENE (EPA 602)	M	96	70-123	3.	30
26-APR-1990	XYLENES, TOTAL (EPA 602)	M	95	65-123	2.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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Enseco
A CORNING Company

☐ 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
☐ 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
☐ 9537 Telstar Ave., Unit 116, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO-8

Date 4/26/90 Page 1 of 1

Lab Number _____

CLIENT DAMES & MOORE

ADDRESS 9300 TECH CENTER DR Ste 100
Sacramento, CA 95826

PROJECT NAME
UPRR - SACTO 00173-054-044

CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER
JIM SMITH

PHONE NUMBER
916-364-8698

SITE CONTACT
TIM PARKER

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE: LIQ.	AIR	SOLID	No. of Containers	601 TARGETS	602						Sample Condition/ REMARKS
HP-7-37	4/26/90	0930	B042690-1	✓			3	X							
HP-7-48.25	4/26/90	1010	-2	✓			3	X							
HP-8-36	4/26/90	1155	-3	✓			3	X	X						
HP-8-54	4/26/90	1230	-4	✓			3	X	X						
HP-9-36	4/26/90	1645	-5	✓			3	X	X						
HP-9-54	4/26/90	1740	-6	✓			3	X	X						

SAMPLERS: (Signature)
Timothy A Parker

Relinquished by: (Signature)
Timothy A Parker

Received by: (Signature) | Date | Time

Received by: (Signature) | Date | Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature) | Date | Time

Received for Laboratory by: Gary Beckman | Date RECEIVED 4/26/90 | Time As Sampled | Date ACCEPTED | Time

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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FAX: (714) 893-6709

Enseco
A CORNING Company

8-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B425
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B042390-001/005.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

Karla I. Saanchez for
Pat Kammen
REVIEWED AND APPROVED

5/8/90
DATE

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042390-001/005
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Date Analyzed: 23-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
MW-30	1.	ND(2)	ND(1)	ND(1)
MW-29	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-1-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-2-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
Blank	ND(1)	ND(2)	ND(1)	ND(1)

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042390-001
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Date Analyzed: 23-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: MW-30

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	470.	ND	1.0
1,2-Dichloroethane	2.	ND	1.0
1,1,1-Trichloroethane	30.	ND	1.0
Trichloroethene	8.	ND	1.0
Tetrachloroethene	ND	ND	1.0

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042390-002
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Date Analyzed: 23-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: MW-29

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	72.	ND	1.0
1,2-Dichloroethane	16.	ND	1.0
1,1,1-Trichloroethane	5.	ND	1.0
Trichloroethene	ND	ND	1.0
Tetrachloroethene	ND	ND	1.0

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042390-004
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Date Analyzed: 23-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: ~~HP-1-36~~ HP-1-56

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	430.	ND	1.0
1,2-Dichloroethane	ND	ND	1.0
1,1,1-Trichloroethane	42.	ND	1.0
Trichloroethene	7.	ND	1.0
Tetrachloroethene	ND	ND	1.0

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X Correction - received 7/3/90
(from B425)

Enseco

Amended Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO
Sample ID: HP-1-56 X

Analysis No.: M-B042390-004
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Sample Type: LIQUID

Parameter	Units	Result	Det. Limit	Blank (RL)	Date Prepared	Date Analyzed	By	Date Reported
1,1-Dichloroethene (EPA 601)	ug/l	430.	1.0	ND(1)	04/23/90	04/23/90		
1,2-Dichloroethane (EPA 601)	ug/l	ND	1.0	ND(1)	04/23/90	04/23/90		
1,1,1-Trichloroethane (EPA 601)	ug/l	42.	1.0	ND(1)	04/23/90	04/23/90		
Trichloroethene (EPA 601)	ug/l	7.	1.0	ND(1)	04/23/90	04/23/90		
Tetrachloroethene (EPA 601)	ug/l	ND	1.0	ND(1)	04/23/90	04/23/90		

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042390-005
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Date Analyzed: 23-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-2-36

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.0
1,2-Dichloroethane	ND	ND	1.0
1,1,1-Trichloroethane	ND	ND	1.0
Trichloroethene	ND	ND	1.0
Tetrachloroethene	ND	ND	1.0

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B042390-001/005
Date Sampled: 23-APR-1990
Date Sample Rec'd: 23-APR-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
23-APR-1990	1,1-DICHLOROETHENE (EPA 601)	M	107	60-132	0.	40
23-APR-1990	1,2-DICHLOROETHANE (EPA 601)	M	104	60-132	2.	40
23-APR-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	105	59-132	0.	41
23-APR-1990	TRICHLOROETHENE (EPA 601)	M	104	60-132	0.	40
23-APR-1990	TETRACHLOROETHENE (EPA 601)	M	106	60-132	4.	40
23-APR-1990	BENZENE (EPA 602)	M	96	21-156	1.	30
23-APR-1990	TOLUENE (EPA 602)	M	97	57-129	3.	30
23-APR-1990	ETHYLBENZENE (EPA 602)	M	96	70-123	2.	30
23-APR-1990	XYLENES, TOTAL (EPA 602)	M	93	65-123	2.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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ACCUTEST
3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-5245 FAX: (707) 763-4066

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name DAMES & MOORE Phone 916-364-8698
Address 7300 TECH CENTER DRIVE Ste 100
City, State, Zip SACTO CA 95826
Client's or Representative's Signature
(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fail to pick up samples.

PROJ. NO. 00173-054 -054 PROJECT NAME UPRR - SACTO
SAMPLERS (Signature)

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	REMARKS	LAB USE ONL LAB NO
MW-30	4/22/90	0835			MW-30	3	601/602	
MW-29	4/23/90	0910			MW-29	3	602/601	
HP-1	4/23/90	1130			HP-1-56	3	602	
HP-1	4/23/90	1115			HP-1-56	3	601	
HP-2	4/23/90	1650			HP-1-36. Should be HP-2-36 *	3	601/602	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	4/23/90	0945	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)

General Remarks: Samples Received on site as Sampled
* HP-1-36 was entered twice on COC probably in error. The second entry is probably supposed to be HP-2-36 because STA. No. HP-1-56 is [illegible]

LAB COPY

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FAX: (714) 893-6709

4-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B426
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B042490-001/005.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

Pat Kimmerer
REVIEWED AND APPROVED

5-4-90
DATE

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042490-001/004
Date Sampled: 24-APR-1990
Date Sample Rec'd: 24-APR-1990
Date Analyzed: 24-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
HP-2-52	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-3-36.5	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-3-57	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-4-36	ND(1.)	ND(2.)	ND(1.)	ND(1.)
Blank	ND(1.)	ND(2.)	ND(1.)	ND(1.)

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7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (800) ENSECO-8
FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042490-001
Date Sampled: 24-APR-1990
Date Sample Rec'd: 24-APR-1990
Date Analyzed: 24-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-2-52

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	5.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	1.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042490-002
Date Sampled: 24-APR-1990
Date Sample Rec'd: 24-APR-1990
Date Analyzed: 24-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-3-36.5

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	2.	ND	1.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042490-003
Date Sampled: 24-APR-1990
Date Sample Rec'd: 24-APR-1990
Date Analyzed: 24-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-3-57

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	3.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	1.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042490-004
Date Sampled: 24-APR-1990
Date Sample Rec'd: 24-APR-1990
Date Analyzed: 24-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-4-36

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	1.	ND	1.
1,2-Dichloroethane	3.	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B042490-001/005
Date Sampled: 24-APR-1990
Date Sample Rec'd: 24-APR-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
24-APR-1990	1,1-DICHLOROETHENE (EPA 601)	M	118	60-132	5.	40
24-APR-1990	1,2-DICHLOROETHANE (EPA 601)	M	114	60-132	6.	40
24-APR-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	119	59-132	4.	41
24-APR-1990	TRICHLOROETHENE (EPA 601)	M	114	60-132	9.	40
24-APR-1990	TETRACHLOROETHENE (EPA 601)	M	112	60-132	1.	40
24-APR-1990	BENZENE (EPA 602)	M	101	21-156	1.	30
24-APR-1990	TOLUENE (EPA 602)	M	100	57-129	0.	30
24-APR-1990	ETHYLBENZENE (EPA 602)	M	101	70-123	1.	30
24-APR-1990	XYLENES, TOTAL (EPA 602)	M	97	65-123	1.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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☐ 9537 Telstar Ave., Unit 116, El Monte, CA 91731, (818) 442-8400
☐ Mobile Labs, (800) ENSECO 8

CHAIN OF CUSTODY RECORD

Date 4/25/90 Page 1 of 1

Lab Number _____

CLIENT DAMES & MOORE

ADDRESS _____

PROJECT NAME _____

CONTRACT / PURCHASE ORDER / QUOTE # _____

PROJECT MANAGER _____

PHONE NUMBER _____

SITE CONTACT _____

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601 complete							Sample Condition/ REMARKS
HP-4-42	4/24/90		B042490-5	X			3 ea								40ml VOA - Good

SAMPLERS: (Signature) _____

Relinquished by: (Signature) _____

Received by: (Signature) Ray Rucew

Received by: (Signature) _____

Date 4/25/90 Time 14:30

Date _____ Time _____

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date	RECEIVED	Time	Date	ACCEPTED	Time

Method of Shipment: _____

Special Instructions: _____

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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☐ 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
☑ Mobile Labs, (800) ENSECO 8

CHAIN OF CUSTODY RECORD

Date 4/24/90 Page 1 of 1

Lab Number

CLIENT Dames & Moore

ADDRESS 9300 Tech Center Dr #100, Sacto

PROJECT NAME UPRR - Sacto 00173-054 -044

CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER Jim Smith

PHONE NUMBER 916-364-8698

SITE CONTACT Tim Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601	602	601 Targeted	Sample Condition/ REMARKS
HP-2-52	4/24/90	0835	B0424901	✓			3	X	X		
HP-3-36.5	4/24/90	1010	-2	✓			3	X	X		
HP-3-57	4/24/90	1140	-3	✓			3	X	X		
HP-4-36	4/24/90	1440	-4	✓			3	X	X		
HP-4-42	4/24/90	1525	-5	✓			3	X			

SAMPLERS: (Signature) Mark Kirk

Relinquished by: (Signature) Kevin A. Brown

Relinquished by: (Signature)

Received by: (Signature)

Received by: (Signature)

Date | Time

Date | Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature) | Date | Time

Received for Laboratory by: Daryl Eckman

Date RECEIVED	Time	Date ACCEPTED	Time
4/24/90	As Sampled		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:

1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)

2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

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FAX: (714) 893-6709

2-MAY-90

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826

BATCH: B427
ANALYSES: 601,602

ATTN: MR. JIM SMITH

PROJECT: UPRR - SACTO

Enclosed with this letter is the report on the analyses performed on samples M-B042590-001/004.

The samples were received by Enseco intact and with the chain-of-custody record attached.

Please note that ND means not detected at the detection limit stated.

Dirk Kammmeyer
REVIEWED AND APPROVED

5-2-90
DATE

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042590-001/003
Date Sampled: 25-APR-1990
Date Sample Rec'd: 25-APR-1990
Date Analyzed: 25-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO

Sample ID	Benzene ug/L EPA 602	Toluene ug/L EPA 602	Ethylbenzene ug/L EPA 602	Xylenes, Total ug/L EPA 602
HP-5-42	ND(1.)	ND(2.)	ND(1.)	ND(1.)
HP-5-56	ND(1.)	2.	ND(1.)	ND(1.)
HP-6-37	ND(1.)	ND(2.)	ND(1.)	ND(1.)
Blank	ND(1.)	ND(2.)	ND(1.)	ND(1.)

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042590-001
Date Sampled: 25-APR-1990
Date Sample Rec'd: 25-APR-1990
Date Analyzed: 25-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-5-42

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	4.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042590-002
Date Sampled: 25-APR-1990
Date Sample Rec'd: 25-APR-1990
Date Analyzed: 25-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-5-56

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	ND	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	ND	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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FAX: (714) 893-6709

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Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042590-003
Date Sampled: 25-APR-1990
Date Sample Rec'd: 25-APR-1990
Date Analyzed: 25-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-6-37

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	63.	ND	1.
1,2-Dichloroethane	17.	ND	1.
1,1,1-Trichloroethane	7.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH

Analysis No.: M-B042590-004
Date Sampled: 25-APR-1990
Date Sample Rec'd: 25-APR-1990
Date Analyzed: 25-APR-1990
Sample Type: LIQUID

Project: UPRR - SACTO
Sample ID: HP-6-53.5

Halogenated Volatile Organics, EPA 601

Units: ug/l

Parameter	Result	Blank	Detection Limit
1,1-Dichloroethene	130.	ND	1.
1,2-Dichloroethane	ND	ND	1.
1,1,1-Trichloroethane	5.	ND	1.
Trichloroethene	ND	ND	1.
Tetrachloroethene	ND	ND	1.

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FAX: (714) 893-6709

Enseco

Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO

Analysis No.: M-B042590-001/004
Date Sampled: 25-APR-1990
Date Sample Rec'd: 25-APR-1990
Sample Type: LIQUID

QA/QC Summary

Date	Parameter (Method)	QC Type	Average Spike Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
25-APR-1990	1,1-DICHLOROETHENE (EPA 601)	M	117	60-132	2.	40
25-APR-1990	1,2-DICHLOROETHANE (EPA 601)	M	112	60-132	3.	40
25-APR-1990	1,1,1-TRICHLOROETHANE (EPA 601)	M	120	59-132	2.	41
25-APR-1990	TRICHLOROETHENE (EPA 601)	M	116	60-132	1.	40
25-APR-1990	TETRACHLOROETHENE (EPA 601)	M	118	60-132	2.	40
25-APR-1990	BENZENE (EPA 602)	M	98	21-156	0.	30
25-APR-1990	TOLUENE (EPA 602)	M	88	57-129	2.	30
25-APR-1990	ETHYLBENZENE (EPA 602)	M	98	70-123	1.	30
25-APR-1990	XYLENES, TOTAL (EPA 602)	M	97	65-123	3.	30

M = Matrix Spike
L = Laboratory Control Sample Spike

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☑ Mobile Labs, (800) ENSECO-8

Date 4/25/90 Page 1 of 1

Lab Number _____

CLIENT Dames & Moore
ADDRESS 9300 Tech Center Drive #400
Sacto, CA 95826
PROJECT NAME
UPRR - Sacto
CONTRACT / PURCHASE ORDER / QUOTE #
00173-054-044

PROJECT MANAGER
Jim Smith
PHONE NUMBER
364-8698
SITE CONTACT
Tim Parker

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	601	602	TARGETED					Sample Condition/ REMARKS
HP-5-42	4/25/90	1010	B042590-1	✓			3	X	X						
HP-5-56	4/25/90	1130	-2	✓			3	X	X						
HP-6-37	4/25/90	1540	-3	✓			2	X	X						
HP-6-53.5	4/25/90	1630	-4	✓			3	X							

SAMPLERS: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by: (Signature) Date Time

Received by: (Signature) Date Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
		Gary Bakunas	4/25/90	As Sampled		

Method of Shipment:

Special Instructions:

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control

Add'l report received 7/3/90
(from B426)

Enseco

Amended Laboratory Report

DAMES & MOORE
9300 TECH CENTER DR., #100
SACRAMENTO, CA 95826
ATTN: MR. JIM SMITH
Project: UPRR - SACTO
Sample ID: HP-4-42

Analysis No: M-B042490-005
Date Sampled: 24-APR-1990
Date Sample Rec'd: 25-APR-1990
Sample Type: LIQUID

Parameter	Units	Result	Det. Limit	Blank (RL)	Date Prepared	Date Analyzed	By	Date Reported
1,1-Dichloroethene (EPA 601)	ug/l	2.	1.	ND(1)	04/24/90	04/24/90	P	05/03/90
1,2-Dichloroethane (EPA 601)	ug/l	13.	1.	ND(1)	04/24/90	04/24/90	P	05/03/90
1,1,1-Trichloroethane (EPA 601)	ug/l	ND	1.	ND(1)	04/24/90	04/24/90	P	05/03/90
Trichloroethene (EPA 601)	ug/l	ND	1.	ND(1)	04/24/90	04/24/90	P	05/03/90
Tetrachloroethene (EPA 601)	ug/l	ND	1.	ND(1)	04/24/90	04/24/90	P	05/03/90

Appendex J

APPENDIX J

QUALITY ASSURANCE/QUALITY CONTROL REPORT

ACCULAB
ENVIRONMENTAL SERVICES

3700 Lakeville Highway, Petaluma, CA 94954
P.O. Box 808024, Petaluma, CA 94975-8024
Telephone: (707) 763-8245 FAX: (707) 763-4065

RECEIVED
FEB 14 1990
DAMES & MOORE

February 13, 1990

Mr. Jim Smith
Dames & Moore
9300 Tech Center Drive, Suite 100
Sacramento, CA 95826

Dear Mr. Smith:

Enclosed you will find a summary of the Quality Assurance data collected for your 1989 Union Pacific Railroad project. The data is organized according to the ACCULAB job number. The actual sample number spiked and duplicated is reported for the specified analysis. Both percent recoveries and duplicate percent relative standard deviations are reported. The asterisks present at locations in the table indicate the data was unavailable because one of the samples spiked either had high levels of other contaminants or the contaminant in question thus interfering with the spike.

GC/MS quality assurance data is described separately and comments are presented by ACCULAB job number. Several samples exceeded holding times by a day or two. This is not considered to invalidate the analyses and in many cases was the results of a gap in time between the sampling event and the final request to ACCULAB to perform analytical work.

Overall, the data generated for your Union Pacific Railroad project should be considered reliable. Acceptance criteria are met for the data generated and are in tune with acceptance criteria published in SW-846 for the methods cited in your ACCULAB reports.

Should you have further questions, please contact me.

Sincerely,

ACCULAB Environmental Services

Mark A. Valentini

Mark A. Valentini, Ph.D.
Laboratory Director

MAV/ria

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

JOB # 890957 - EPA 8270

All QA/QC requirements for EPA 8270 were met except:

1. Only 1 liter of sample was provided so a blank spike was performed instead of matrix spike and matrix spike duplicate.
2. Calibration was done by 3-point initial calibration. Required %RSD was 15% for an initial and 15% RPD for continuing calibration for all targets identified. This practice was discontinued in April 1989 when Paul Mills took over responsibility for GC/MS methods. 5-point initial calibrations and daily continuing calibrations and checking CCC and SPCC compounds were started in April 1989.

JOB # 890957 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. Calibration was done by 3-point initial calibration with required %RSD less than 15% for targets identified. This practice was discontinued in April of 1989 when Paul Mills took over responsibility for GC/MS methods. 5-point initial calibrations and daily continuing calibrations and checking CCC and SPCC compounds were started in April 1989.
2. The second surrogate (Toluene-D8) is high in sample lab numbers 05969, 05970, and the daily instrument blank. This is due to the lab method of purging 25 ml of a liquid sample for EPA 8240. Control limits for this practice have been established by the lab and all samples from this job and the daily instrument blank fall within these control limits.
3. Tetrachloroethene was detected in the blank at 1.1 ug/L. This is more than reported detection limits but less than 5 times reported detection limits as allowed by EPA 8240.

JOB # 893380 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. Sample lab number 44405 had all 3 surrogates out of EPA 8240 QC limits. The sample appeared to absorb volatile compounds and no analysis with surrogates inside QC limits was achieved.

JOB # 893415 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. Sample lab number 44764 had low 3rd surrogate (4-Bromofluorobenzene) recovery due to high hydrocarbon content of sample.
2. Sample lab number 44765 was analyzed 1 day past holding time.
3. Sample lab number 44789 was analyzed 2 days past holding time.

JOB # 894319 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. Sample lab number 44789 was analyzed 3 days past holding time.

JOB # 893451 - EPA 8240

All QA/QC requirements of EPA 8240 were met except:

1. All samples from this job were analyzed 1 day past holding time.

JOB # 893489 - EPA 8240

All QA/QC requirements of EPA 8240 were met except:

1. Sample lab numbers 45424 and 45426 were both analyzed 3 days past holding time.
2. Sample lab numbers 45423, 45427, 45428, 45430, 45431, 45432, and 45433 all had surrogates out of QC limits due to high hydrocarbon content of some samples.

JOB # 893534 - EPA 8240

All QA/QC requirements for EPA 8240 were met.

JOB # 893616 - EPA 8240

All QA/QC requirements for EPA 8240 were met.

JOB # 893883 - EPA 8240

All QA/QC requirements for EPA 8240 were met.

NOTE: Samples from Job #'s 893883, 893927, 893946, 894011, and 894090 were assigned to the same matrix spike QC group. The matrix spike and matrix spike duplicate met all QC requirements for EPA 8240 for this group.

JOB # 893927 - EPA 8240

All QA/QC requirements for EPA 8240 were met.

JOB # 893946 - EPA 8240

All QA/QC requirements of EPA 8240 were met except:

1. 2 surrogates were out of EPA 8240 QC limits for lab sample number 49274. 1 surrogate was out of limits for lab sample 49275. Both samples had very high levels of organic material but no detected targets.
2. Daily blank for this job had more than reported detection limits of Methylene Chloride, but less than 5 times reported detection limits which is allowed by EPA 8240.

JOB # 894011 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. The daily instrument blank had more than reported detection limits of Methylene Chloride, but less than 5 times the reported detection limit is allowed in EPA 8240.
2. Sample lab number 49701 was analyzed 1 day past holding time.

JOB # 894090 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. Initial 5-point calibration CCC compounds 1,1-Dichloroethene, CIS-a,3-Dichloropropene, and Vinyl Chloride all had %RSD high. Since 5-point was analyzed during the same tune time as the sample and matrix spikes and no targets were detected in the sample, the data was reported.

JOB # 894186 - EPA 8240

All QA/QC requirements for EPA 8240 were met.

JOB # 894281 - EPA 8240

All QA/QC requirements for EPA 8240 were met.

NOTE: Samples for job #'s 894281, 894315, and 894319 were grouped together into 1 QC group for matrix spikes. See Job # 894315 for information about the matrix spikes.

JOB # 894318 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. In the matrix spike and duplicate, RPD for 1,1-Dichloroethene was 23% and QC limit is 22%.

JOB # 894319 - EPA 8240

All QA/QC requirements for EPA 8240 were met except:

1. The third surrogate (4-Bromofluorobenzene) recovered low in both samples due to hydrocarbon interferences.

The following QC was checked for each job:

BLANKS: Surrogate recovery and targets found above detection limits.
TUNING: DFTPP and PFB.
CALIBRATION: CC and SPCC compounds using SW-846 limits.
SAMPLES: Surrogate recovery, holding time, and dilutions using limits listed in SW-846.
MATRIX SPIKES: Check both % recovery and RPD for duplicates using SW-846 limits.

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3100	42547	AS	95	0.00
		CR	97	0.70
		CU	100	1.70
		PB	96	0.40
3380	44405	AS	95	0.90
		CU	100	2.10
		PB	96	1.10
3409	44772	AS	95	5.20
	44773	AS	95	7.00
	44788	AS	95	8.30
3415	44722	AS	95	5.20
	44773	AS	95	7.00
	44788	AS	95	8.30
3419	44722	AS	95	5.20
	44773	AS	95	7.00
	44788	AS	95	8.30
3451	44722	AS	95	5.20
	44773	AS	95	7.00
	44788	AS	95	8.30
3488	45426	AS	95	6.20
	45425	AS	95	6.40
3489	45426	AS	95	6.20
	45425	AS	95	6.40
3508	45560	AS	95	4.10
		CU	100	0.50
		PB	96	4.90
		SB	75	3.80
		BE	99	3.60
3509	45665	AS	95	4.20
		PB	96	7.40
		SB	75	4.80
		CU	100	2.90
		BE	99	2.60
	45680	HG	80	11.00

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3534	45693	AS	95	4.60
		CU	100	1.50
		PB	96	0.40
3616	46268	AS	95	3.60
	46302	AS	95	3.80
		PB	96	4.20
	46268	CU	100	1.20
	46302	CU	100	0.50
		SB	75	9.30
3620	46319	AS	95	6.60
		PB	96	0.50
		CU	100	0.60
3621	46338	AS	95	10.30
	46330	HG	80	8.80
	46714	SE	92	3.80
	46338	PB	96	0.70
		CU	100	0.20
3631	46513	AS	95	0.00
		PB	96	0.60
		CU	100	1.20
		CD	100	11.00
3576	45986	HG	80	0.00
	45988	PB	96	4.30
		AS	95	6.70
		CU	100	0.40
	45987	CU	100	0.50
		PB	96	0.60
		AS	95	4.70
3578	45986	HG	80	0.00
	45988	PB	96	4.30
		AS	95	6.70
		CU	100	0.40
	45987	CU	100	0.50
		PB	96	0.60
		AS	95	4.70

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
1848	33561	TPH/G	104	7.60
3380	44389	TPH/G	101	0.20
3415	44389	TPH/G	101	0.20
3419	44389	TPH/G	101	0.20
3488	45765	TPH/G	103	0.20
3509	45765	TPH/G	103	0.20
3489	45421	TPH/G	84	19.00
3508	45421	TPH/G	84	19.00
3534	45421	TPH/G	84	19.00
3451	45017	TPH/G	112	1.10
3533	45666	TPH/G	92	16.00
3576	45666	TPH/G	92	16.00
3578	45666	TPH/G	92	16.00
3616	45666	TPH/G	92	16.00
3621	45666	TPH/G	92	16.00
3620	46715	TPH/G	87	16.00
3631	46715	TPH/G	87	16.00
3713	47124	TPH/G	160	1.00
3742	47124	TPH/G	160	1.00
3773	48844	TPH/G	160	16.00
3783	48844	TPH/G	160	16.00
3927	49130	TPH/G	101	16.00
3946	49130	TPH/G	101	16.00

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4011	49335	TPH/G	110	9.60
4090	49988	TPH/G	94	1.00
4270	51558	TPH/G	130	1.00
4281	51783	TPH/G	120	3.50
4318	51783	TPH/G	120	3.50
4319	51783	TPH/G	120	3.50

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
957	6564	AS	95	1.70
		SN	92	0.96
		MO	93	0.75
		TL	93	0.83
		SB	91	0.56
		HG	91	0.87
		CD	90	0.58
		CO	93	0.98
		NI	90	0.28
		SE	94	0.10
		MN	92	0.28
		FE	91	0.69
		ZN	91	0.47
		V	93	0.32
		BE	89	0.47
		PB	92	0.21
		CU	94	0.42
		AG	94	0.88
		CR	91	0.53
		TL	91	0.23
		ZR	90	0.74
		BA	94	0.16
		AL	98	0.96
1775	21878	AS	92	0.82
		CU	90	0.42
		PB	88	0.03
1971	33651	MO	97	1.91
		AS	92	2.68
		SB	96	0.78
		CD	89	0.24
		CO	92	1.90
		TL	93	1.84
		NI	92	0.25
		MN	96	0.33
		FE	92	0.05
		HG	93	1.26
		V	96	0.56
		BE	88	0.43
		CU	96	0.20
		SE	91	1.45
		AG	101	0.01
		BA	97	0.01
		ZN	98	0.52
		PB	95	2.11
		CR	96	0.50

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3409	44625	PB	96	8.10
3415	44772	PB	96	0.80
	44773	PB	96	0.80
	44780	PB	96	0.90
3419	44788	PB	96	0.70
		CU		
3409	44625	CU	100	1.20
3415	44772	CU	100	0.90
	44773	CU	100	0.70
	44780	CU	100	0.70
	44772	SB	75	9.30
	44780	SB	75	0.00
	44780	AS	95	3.10
	44789	MO	74	0.53
		AS	82	0.60
		CD	81	1.77
		TL	85	0.70
		CO	87	0.21
		NI	86	0.49
		V	90	0.18
		HG	82	1.00
		BE	83	0.39
		CO	94	0.34
		SE	86	0.65
		AG	90	0.90
		BA	98	0.65
		ZN	84	0.16
		PB	86	2.02
		CR	82	0.56
3489	45425	PB	96	0.00
		CU	100	0.20
3451	45426	PB	96	1.70
		CU	100	1.00

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3488	45775	MO	67	2.87
3489		AS	82	1.70
3533		CD	84	1.12
3576		TL	84	1.40
		CO	85	0.37
		NI	89	0.76
		V	86	1.07
		HG	84	0.32
		BE	86	1.36
		CU	84	1.42
		AG	85	1.19
		SE	85	1.83
		BA	87	1.14
		ZN	89	3.33
		PB	82	2.50
		CR	88	1.41
3488	45409	PB	96	0.60
	45411	PB	96	1.40
	- 45409	CU	100	0.50
	45411	CU	100	2.60
3621	46714	MO	60	1.22
		AS	72	0.59
		CD	78	1.91
		CO	80	0.06
		TL	61	1.22
		NI	77	0.86
		V	72	0.70
		BE	77	1.33
		HG	80	1.55
		CU	*********	
		AG	78	0.74
		SE	73	0.20
		ZN	72	0.66
		PB	*********	
		CR	77	1.86

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3713	47009	MO	71	1.98
		AS	79	1.13
		CD	74	0.27
		CO	80	0.48
		TL	60	0.75
		NI	80	1.48
		V	82	1.44
		BE	75	0.85
		HG	78	0.70
		CU	94	0.89
		AG	86	0.03
		SE	93	3.73
		BA	80	0.80
		ZN	81	1.82
		PB	78	1.51
		CR	78	0.18
3742	47746	MO	75	1.70
3789		AS	79	1.05
		SB	31	6.86
		CD	84	3.45
		CO	87	2.31
		TL	86	3.63
		NI	88	2.88
		V	88	1.81
		BE	88	5.35
		HG	84	2.40
		CU	83	0.18
		AG	85	1.49
		SE	86	3.07
		BA	86	0.38
		ZN	91	4.34
		PB	89	3.84
		CR	90	3.21
		MN	94	2.93

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3883	48556	MO	56	1.77
		AS	67	1.20
		SB	16	8.60
		CD	74	3.23
		CO	80	1.93
		TL	75	3.09
		NI	75	2.31
		V	77	1.36
		BE	78	3.92
		HG	80	0.98
		CU	97	5.29
		AG	94	0.99
		SE	75	3.32
		BA	39	3.03
		ZN	67	1.04
		PB	72	10.77
		CR	75	1.28
3927	49130	MO	65	0.90
3930	-	AS	73	0.58
		CD	72	2.66
		CO	81	1.36
		TL	67	1.82
		NI	80	0.67
		V	85	0.31
		BE	78	0.92
		HG	82	0.17
		CU	93	21.40
		AG	88	1.89
		SE	78	0.73
		BA	92	0.50
		ZN	82	9.69
		PB	79	0.52
		CR	81	0.15

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4011	49753	MO	79	1.20
4012		AS	85	1.60
		SB	20	3.16
		CD	84	0.18
		CO	87	0.35
		TL	80	2.30
		NI	89	1.63
		V	85	1.30
		BE	84	1.08
		HG	81	2.89
		CU	83	2.59
		AG	88	1.85
		SE	87	0.49
		BA	86	1.39
		ZN	86	9.18
		PB	79	0.83
		CR	86	0.16
4090	50277	MO	84	0.37
	-	AS	88	0.09
		SB	31	2.44
		CD	87	1.92
		CO	90	0.43
		TL	89	0.53
		NI	89	0.93
		V	89	0.25
		BE	90	1.63
		HG	88	0.45
		CU	91	1.09
		AG	85	2.03
		SE	90	0.72
		BA	86	0.69
		ZN	97	0.98
		PB	83	1.36
		CR	92	2.28

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4182	50317	MO	109	1.84
		AS	113	3.19
		SB	100	0.85
		CD	127	3.07
		CO	112	1.03
		TL	112	2.98
		NI	113	2.49
		V	102	0.67
		BE	114	2.77
		HG	111	3.14
		CU	86	0.48
		AG	92	1.11
		SE	110	2.85
		BA	84	0.95
		ZN	111	2.23
		PB	107	3.14
		CR	113	1.96
4186	50877	MO	83	1.94
		AS	82	0.20
		SB	82	0.12
		CD	71	0.95
		CO	78	0.30
		TL	83	0.42
		NI	77	0.11
		V	82	0.24
		BE	75	0.04
		HG	80	0.90
		CU	90	0.26
		AG	89	0.86
		SE	85	0.81
		BA	91	0.31
		ZN	82	0.79
		PB	80	0.33
		CR	80	0.72

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4186	51136	MO	74	0.37
		AS	79	0.17
		CD	74	0.95
		CO	82	0.80
		TL	83	1.10
		NI	80	0.50
		V	83	0.23
		BE	78	1.40
		HG	81	0.60
		CU	91	0.10
		AG	87	0.60
		SE	88	0.40
		BA	96	1.20
		ZN	81	0.92
		PB	82	0.48
		CR	81	0.91
4269	51418	MO	87	1.19
4280		AS	87	0.74
		SB	88	0.40
		CD	81	0.60
		CO	85	0.40
		TL	84	0.59
		NI	84	0.19
		V	85	0.94
		BE	76	0.26
		HG	87	0.08
		CU	95	0.12
		AG	94	0.86
		SE	87	0.21
		BA	94	0.11
		ZN	87	1.38
		PB	85	0.03
		CR	86	0.00
		MN	84	0.31

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4281	51424	MO	63	3.16
4318		AS	70	4.34
		CD	72	1.00
		CO	79	1.17
		TL	76	1.89
		NI	73	1.53
		V	78	2.26
		BE	76	0.40
		HG	81	0.91
		CU	80	1.58
		AG	87	0.85
		SE	76	0.40
		BA	62	7.23
		ZN	81	0.95
		PB	81	1.18
		CR	79	0.45
4317	51787	MO	89	6.80
4320		AS	88	7.03
		SB	89	4.10
		CD	84	4.21
		CO	89	2.83
		TL	87	3.40
		NI	86	2.51
		V	90	1.70
		BE	86	0.88
		HG	87	0.85
		CU	95	1.10
		AG	98	1.72
		SE	88	0.62
		BA	94	0.58
		ZN	91	1.59
		PB	88	0.40
		CR	89	0.36

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4388	52210	MO	88	1.01
		AS	94	0.84
		SB	90	0.21
		CD	85	0.80
		CO	87	0.10
		TL	89	0.75
		NI	86	1.89
		V	90	0.91
		BE	87	0.86
		HG	91	2.20
		CU	93	1.49
		AG	91	0.82
		SE	97	0.23
		BA	92	1.01
		ZN	92	1.19
		PB	88	0.01
		CR	91	1.44
4457	52623	MO	85	8.79
4477		AS	79	6.19
		SB	85	5.51
		CD	67	5.88
		CO	77	3.20
		TL	78	4.28
		NI	76	2.72
		V	85	2.49
		BE	73	0.66
		HG	79	2.68
		CU	101	2.07
		AG	101	2.73
		SE	83	1.21
		BA	104	2.09
		ZN	83	2.65
		PB	81	1.63
		CR	81	1.43

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3415	44789	NAPHTHALENE	60	3.90
3419		ACENAPHTHYLENE	42	8.50
		ACENAPHTHENE	44	3.70
		FLUORENE	50	3.80
		PHENANTHRENE	62	0.20
		ANTHRACENE	51	16.20
		FLUORANTHENE	71	13.00
		PYRENE	71	3.80
		BENZO(A)ANTHRACENE	57	6.70
		CHRYSENE	58	3.70
		BENZO(B)FLUORANTHENE	58	0.90
		BENZO(K)FLUORANTHENE	58	3.50
		BENZO(A)PYRENE	44	19.00
		DIBENZO(AH)ANTHRACEN	63	4.50
		BENZO(GHI)PERYLENE	51	3.20
		INDENOPYRENE	57	3.40
3451	45426	NAPHTHALENE	88	6.00
3489		ACENAPHTHYLENE	96	0.10
3508	-	ACENAPHTHENE	97	4.80
3533		FLUORENE	98	5.40
		PHENANTHRENE	107	6.80
		ANTHRACENE	63	8.80
		FLUORANTHENE	102	9.30
		PYRENE	108	7.50
		BENZO(A)ANTHRACENE	91	4.90
		CHRYSENE	106	*********
		BENZO(B)FLUORANTHENE	104	7.90
		BENZO(K)FLUORANTHENE	100	6.60
		BENZO(A)PYRENE	48	9.90
		DIBENZO(AH)ANTHRACEN	84	*********
		BENZO(GHI)PERYLENE	93	5.10
		INDENOPYRENE	91	11.90
3576	45969	NAPHTHALENE	96	
3579		ACENAPHTHYLENE	100	104.00
3621		ACENAPHTHENE	96	18.40
		FLUORENE	96	77.60
		PHENANTHRENE	108	29.70
		ANTHRACENE	70	29.30
		FLUORANTHENE	134	58.60
		PYRENE	116	24.80
		BENZO(A)ANTHRACENE	104	30.70
		CHRYSENE	109	25.50
		BENZO(B)FLUORANTHENE	98	27.10
		BENZO(K)FLUORANTHENE	182	13.50
		DIBENZO(AH)ANTHRACEN	107	9.60
		BENZO(GHI)PERYLENE	83	23.00
		INDENOPYRENE	65	99.00

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
3742	47643	NAPHTHALENE	85	5.00
3773		ACENAPHTHYLENE	98	5.40
3774		ACENAPHTHENE	112	19.80
3789		FLUORENE	102	10.10
		PHENANTHRENE	130	16.50
		ANTHRACENE	52	16.70
		FLUORANTHENE	116	0.30
		PYRENE	75	7.70
		BENZO(A)ANTHRACENE	107	9.00
		CHRYSENE	120	5.40
		BENZO(B)FLUORANTHENE	114	3.80
		BENZO(K)FLUORANTHENE	106	10.80
		BENZO(A)PYRENE	72	17.70
		DIBENZO(AH)ANTHRACEN		*********
		BENZO(GHI)PERYLENE		*********
		INDENOPYRENE	94	4.50
3883	49131	NAPHTHALENE	69	3.30
3927		ACENAPHTHYLENE	79	1.10
3930		ACENAPHTHENE	74	2.30
3946		FLUORENE	80	0.80
4011		PHENANTHRENE	93	2.60
4012		ANTHRACENE	77	2.90
		FLUORANTHENE	90	6.90
		PYRENE	88	5.00
		BENZO(A)ANTHRACENE	83	1.60
		CHRYSENE	91	2.10
		BENZO(B)FLUORANTHENE	94	4.00
		BENZO(K)FLUORANTHENE	90	6.00
		BENZO(A)PYRENE	82	7.50
		DIBENZO(AH)ANTHRACEN	143	*********
		BENZO(GHI)PERYLENE	88	1.40
		INDENOPYRENE	85	1.40
4050	51136	NAPHTHALENE	62	19.80
4090		ACENAPHTHYLENE	70	14.60
4186		ACENAPHTHENE	69	11.20
4281		FLUORENE	73	11.30
		PHENANTHRENE	71	12.50
		ANTHRACENE	71	3.60
		FLUORANTHENE	87	6.60
		PYRENE	84	15.60
		BENZO(A)ANTHRACENE	86	56.50
		CHRYSENE	87	*********
		BENZO(B)FLUORANTHENE	87	11.50
		BENZO(K)FLUORANTHENE	84	50.70
		BENZO(A)PYRENE	82	*********
		DIBENZO(AH)ANTHRACEN	31	*********
		BENZO(GHI)PERYLENE	86	7.90
		INDENOPYRENE	87	*********

DAMES & MOORE/UNION PACIFIC RAILROAD QUALITY CONTROL DATA

ACCULAB JOB NUMBER	SAMPLE NUMBER	ANALYSIS	SPIKE % REC.	DUPLICATE % RSD
4318	BK.SPK.	NAPHTHALENE	60	
4319		ACENAPHTHYLENE	71	
		ACENAPHTHENE	66	
		FLUORENE	76	
		PHENANTHRENE	94	
		ANTHRACENE	89	
		FLUORANTHENE	102	
		PYRENE	93	
		BENZO(A)ANTHRACENE	99	
		CHRYSENE	93	
		BENZO(B)FLUORANTHENE	93	
		BENZO(K)FLUORANTHENE	89	
		BENZO(A)PYRENE	83	
		DIBENZO(AH)ANTHRACEN	73	
		BENZO(GHI)PERYLENE	87	
		INDENOPYRENE	86	
4612	53628	NAPHTHALENE	77	14.40
		ACENAPHTHYLENE	54	20.30
	-	ACENAPHTHENE	73	*********
		FLUORENE	85	0.50
		PHENANTHRENE	139	7.80
		ANTHRACENE	45	52.30
		FLUORANTHENE		18.30
		PYRENE	175	17.10
		BENZO(A)ANTHRACENE	57	36.90
		CHRYSENE	82	0.80
		BENZO(B)FLUORANTHENE	71	1.80
		BENZO(K)FLUORANTHENE	51	*********
		BENZO(A)PYRENE	115	*********
		DIBENZO(AH)ANTHRACEN	45	*********
		BENZO(GHI)PERYLENE	42	*********
		INDENOPYRENE	62	*********

APPENDIX I

QUALITY ASSURANCE/QUALITY CONTROL PLAN

I.1.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) FOR SAMPLING

I.1.1 EQUIPMENT CALIBRATION AND MAINTENANCE

All equipment used during the field investigation was checked at least on a daily basis to ensure proper function. Preventative maintenance was emphasized to reduce the need for corrective action. Manufacturers' manuals were used as guides for maintenance requirements; for equipment without such manuals, generally accepted procedures were used.

The Photoionization Detector (PID), pH meter, and electrical conductivity (EC) meter were calibrated at the beginning of each sampling day and at any other time that out-of-calibration operation was suspected.

The PID was calibrated to one of three different certified gas standards of isobutylene of known concentrations: 95.9, 94.7, or 35 ppm.

The pH and EC meters were calibrated to commercial standards in a three-point range and the probes of the meters were exposed to them sequentially. The standards ranged from 4 to 10 units (pH meter) and from 0 to 10,000 umho/cm (EC meter).

Maintenance and calibration records were kept with each instrument, and are maintained in D & M job files.

I.1.2 SAMPLE COLLECTION PROCEDURES

Standardized procedures were used for collecting soil and groundwater samples. The procedures were described in relevant Sections of the Phase 2 RI Work Plan (Dames & Moore, 1989). Field personnel were thoroughly familiar with them prior to initiating activities at the site and a copy of the Work Plan was kept on-site for reference.

I.1.3 SAMPLE IDENTIFICATION

Each sample collected (including QA samples) was assigned a unique number by which it was identified and tracked from the time of collection until its final disposition.

The soil sample numbers included a "B" (for boring) or "P" (for test pit), a three-digit number identifying the boring or the test pit, and "A", "B", or "C" to designate the sample ring, a three-digit depth designator, and the date (e.g., "04/15/89"). Thus, an example of a complete sample number would be "B017A10.004/15/89."

The water sample numbers included "MW" (designating monitoring well), a two-digit well number, a one-digit number identifying sample sequence on the same day from the same well, the date, and a two-letter code to identify the type of test that was to be conducted. The two-letter code was designated as follows:

Heavy Metals (Unfiltered)	-	MU
Heavy Metals (Filtered)	-	MF
Volatiles	-	VO
Semivolatiles and PCBs	-	SP

Thus, an example of a complete sample number would be "MW07106/10/87-MF."

QA samples were identified via a similar numbering scheme. An example of a soil sample and its duplicate would be "BO17A10.006/06/87" and "BO17B10.006/06/87," respectively. It should be noted that soil blind duplicates were from sample ring B. An example of a ground water sample and its duplicate for volatiles would be "MW07106/10/87-VO" and "MW07206/10/87-VO," respectively. Additional QA sample designators were "FB," "TB," and "RB" for field blanks, travel blanks, and rinsate blanks, respectively.

I.1.4 CHAIN-OF-CUSTODY PROCEDURES

All collected information, data, samples, and documents were accounted for and retrievable at any time during the investigation. Chain-of-custody procedures were used to document the sample handling and shipping procedures, and in general, to identify and ensure the traceability of the collected samples. Custody procedures traced the sample from collection, through any custody transfers, and finally to the analytical laboratory where their internal procedures took over until final disposition of the samples.

Appropriate taping and sealing was used to prevent or detect tampering with the samples. All samples and shipping containers were sealledwith custody tape prior to shipment. In addition, entries noting the condition of the samples and their containers and packing were recorded in the field notes and laboratory logbook. The custody record would have indicated any tampering that may have occurred. The absence of such comments indicates that no tampering was observed or suspected.

A chain-of-custody form was used to document changes of custody from the time of collection until final disposition. The custody records were used for a packaged lot of samples; thus, more than one sample were recorded on one form. More than one form was used when necessary to record all of the samples in a particular lot. The original record always remained with the samples; the originator and other appropriate persons in the chain-of-custody retained copies.

The analytical laboratory had a designated sample custodian to implement a system for controlling samples. This included accepting custody of arriving samples, verifying that the information on the sample labels matched that on the chain-of-custody record, assignment of unique laboratory numbers, and distribution of the samples to the appropriate analyst.

I.1.5 SAMPLE PRESERVATION PROCEDURES

Samples were preserved upon collection by cooling them in ice chests maintained at or below 4 C (all samples) and, where appropriate, by addition of preservatives. Samples collected at the end of each sampling day were cooled using wet ice and shipped by common carrier to ACCULAB Environmental Services Laboratory, Petaluma, California.

Whenever possible, in cases where addition of preservatives was specified, the sample containers from the laboratory were delivered already containing the appropriate preservative and clearly labelled to that effect. For analyses of volatile organics in soil samples, a six inch core stored at 4 C was submitted to the laboratory. In most cases, the sample was analyzed within the time specified in EPA's SW-846. Exceptions are noted in the Laboratory QA/QC Report.

Sample preservation procedures followed the guidelines given in Table 3.19 of the California Department of Health Services (DHS) Decision Tree Manual (May 1986), as well as the specifications contained in the analysis method descriptions. Sample handling and preservation methods are summarized in Tables A-6 and A-7.

I.1.6 DECONTAMINATION OF SAMPLING EQUIPMENT

The following decontamination procedures were followed to restrict the movement of potentially contaminated materials into noncontaminated areas, and to reduce the potential of cross-contamination of the samples collected during the investigation from other materials or the sampling equipment:

1) All sample containers were precleaned by the analytical laboratory.

2) All field equipment that could contact the samples or sample containers was cleaned prior to use and between each sampling event by washing in a non-phosphate detergent solution, then triple rinsed in deionized water.

3) Drilling equipment was steam-cleaned between drilling the boreholes to minimize cross-contamination between the boreholes.

Sample preservation procedures followed the guidelines given in Table 3.19 of the California Department of Health Services (DHS) Decision Tree Manual (May, 1986), as well as the specifications contained in the analysis method descriptions. Sample handling and preservation methods are summarized in Tables A-6 and A-7.

I.1.7 PERSONNEL QUALIFICATIONS

Sampling was conducted by Dames & Moore scientists or geologists, under the ultimat supervision of a registered geologist or certified engineering geologist.

I.2.0 LABORATORY QA/QC

I.2.1 LABORATORY CERTIFICATION BY DHS

ACCULAB Environmental Services is certified by the DHS Hazardous Materials Laboratory (Certificate No. 106).

I.2.2 ANALYTICAL METHODS

Chemical Analysis Methods

Methods selected for chemical analysis of soil and water samples are shown in Table A-6 and Table A-7, respectively, along with the precision, accuracy, and detection limits reported for each method in the DHS Decision Tree Manual. Methods of analysis of water samples for organic constituents also included:

EPA 601: Volatile chlorinated hydrocarbons
EPA 602: Volatile aromatic hydrocarbons

Precision, accuracy, and detection limits of these methods are attached in ACCULAB's QA/QC manual.

Since all of the chemical analytical methods are EPA-approved, they are described in detail in government references (see 40 CFR Part 136, 26 October 1984). The key to the success of these methods was in the adherence of laboratory personnel to each step in the analytical procedures and to each method's QC measures. The

laboratory QC measures for this program are described in the attached manual.

Physical Analysis Methods

Soil samples selected for physical analysis were analyzed for the physical parameters moisture/density, porosity, grain size analysis, Atterberg limits, and permeability. The test methods are shown in Table A-8. The QC protocols required by the ASTM methods were followed.

I.2.3 LABORATORY QUALITY ASSURANCE PROGRAM

A description of ACCULAB's QA/QC program is included in the attached manual. This program provided laboratory personnel with guidelines and specifications to ensure that the precision, accuracy, completeness, representativeness, and comparability of data generated by the laboratory are both known and documented. The program satisfies the environmental monitoring and measurement requirements of California and federal agencies, including DHS and the Environmental Protection Agency (EPA). The QA program addresses the policies, organization, objectives, and specific QC activities routinely implemented ACCULAB to satisfy the intended end use of the laboratory data.

Field blank samples submitted for analysis were analyzed according to the methods listed in Tables A-6 and A-7.

I.3.0 DATABASE QA/QC

I.3.1 DATABASE MANAGEMENT

The field investigations generated a broad range of environmental data describing the hydrologic, geologic, and air

quality conditions on the site. In order to integrate all categories of data during analysis of the site, a microcomputer based data management system was established. The principal advantages of the development of a comprehensive data management system for the UPRR Site included the following:

- Data sets of varying format and size could be cross-indexed;
- Data retrieval and analysis tasks could be expedited; and
- QA/QC procedures which ensured overall technical integrity of the RI/FS could be facilitated.

Efficient management of the database required that all tasks associated with data entry, processing, analysis, and reporting were accomplished in an orderly and verifiable manner.

The data management system for this program was designed to organize information so that (1) data entry errors were minimized; (2) data were readily accessible in the form of tables, graphs, or maps; (3) additional data could readily be added to the existing database; (4) each sampling point could be geographically indexed; and (5) data could be readily cross checked, manipulated, imported, and exported for graphical and statistical analysis. Consequently, the data management system allowed project personnel and reviewers to track variations in ambient air quality, soil chemistry, ground water elevations, ground water flow directions, and chemical concentrations. In addition, the system allowed graphical output of data in the form of contour plots.

The database consisted of data that were either fixed in time or varied with time. The types of information included in the first category were aspects of well identification, installation, and construction which are permanent features of ground water monitoring wells installed on-site. Geologic/lithologic data and

the geographical coordinates and elevations of sampling points were also included in this category. Time varying data entered into the database consisted of water elevations, ambient air quality, soil chemistry, soil physical parameters, and surface water and ground water quality.

Data was managed by a microcomputer, using the dBASE III PLUS software package. This highly flexible, widely-used data management program was used in conjunction with other software packages for data manipulation, statistical analysis (STATPRO), and graphical output (GOLDEN Software Grapher), and SURFER. The software programs were operated on IBM compatible 286 and 386 microcomputers.

To avoid duplication of effort and to reduce the potential for data loss or miscoding, one individual was responsible for management of the database. This data management specialist maintained the computer files, supervised data entry, editing, and verification. The database manager also assisted in data analysis and reporting. In general, the data collected during the initial screening and all subsequent data collected during the RI and FS programs were and will be processed in seven stages. They include:

- data receipt and cross checking,
- data reduction,
- date entry,
- verification of data entry,
- data editing,
- QA checking, and
- data retrieval.

Information in the database was manipulated to determine the hydrologic, geologic, ambient air, soil, and geochemical characteristics of the site. The data manipulation phase included

compilation and computation of information such as the following:

- potentiometric surface elevations,
- spatial and time trends in ambient air quality,
- well data and water qualityy data indexed by time and location,
- ground water surface contours, and
- chemical concentration contours for air, soil, and ground water data, as required.

Routine calculations and tabulations of data were made internally with dBASE III PLUS. Information from the database was readily displayed in tabular form. However, for some groundwater and air quality modeling purposes, statistical analysis of data, and graphical output, data files were exported to other software packages as required. Typical graphical outputs are listed below:

- raw data tables,
- transformed data tables,
- statistical plots and charts,
- two-dimensional contour plots,
- three-dimensional block diagrams, and
- contaminant concentration plots as a function of time.



3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA, 94975-8024
Telephone: (707) 763-8246 FAX: (707) 763-4065

ACCULAB Environmental Services

Manual of

QUALITY ASSURANCE and QUALITY CONTROL

for

LABORATORY PROCEDURES

for

WATER and WASTE ANALYSIS

Revised: 2/89

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1.0 INTRODUCTION

1.1 Applicability

The quality assurance/quality control program manual presented in this document is applicable to the environmental data generated and processed at ACCULAB Environmental Services Environmental Laboratory and serves to assure that such data meets specified standards of accuracy, precision and completeness. Quality assurance and quality control processes used in the Environmental Laboratory are based on the procedural guidelines given in the following EPA publications: Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA-600/4-79-019. 3/79; Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. SW-846. 11/86. 3rd Ed.; and Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020 (rev. 3/83). Federal Register, Volume 49, October, 1984.

Furthermore, the Environmental Laboratory complies with the quality assurance and quality control measures described in the California Department of Health Services publication, Recommended Methods of Analyses for the Organic Components Required for AB 1803. 5th Ed. (rev. 4/86).

This quality assurance/quality control program manual applies to the analyses performed by the Environmental Laboratory for the following activities: 1) analysis of wastewater for compliance with NPDES permit requirements, 2) analysis of ground water and solid waste samples as required by the RCRA, 40 CFR Part 261 and 265, 3) analysis

of waste materials in compliance with California Title 22 provisions, and 4) analysis of water and soil samples for fuel hydrocarbons contamination required by California Regional Water Quality Control Boards. Any additional analyses performed by the Environmental Laboratory will be performed in compliance with this program plan.

1.2 Laboratory Organization

ACCULAB Environmental Services, (formerly Fireman's Fund Environmental Laboratory), operates as an independent subsidiary of Dames & Moore, a Professional Limited Partnership. The laboratory is supervised by the Laboratory Director who is responsible for all technical aspects of laboratory operation. The Laboratory Director is assisted by Senior Chemists who directly supervise a group of analysts. The responsibilities of the Senior Chemists consist of job assignments, review of analytical and quality control results, interaction with clients, project management and method development.

Routine analytical work is performed by analysts with a minimum of a BS degree in Physical or Biological Sciences, engineering or equivalent. The analysts may be assisted by technicians. See appendix I for organization chart.

1.3 Laboratory Description:

ACCULAB Environmental Services, has been providing laboratory services to industrial and governmental concerns since 1976. The laboratory, located in Petaluma, California, currently occupies 20,000 square feet of laboratory and office space, 10,000 square feet including expanded organic extraction facilities, cold-room sample storage and expanded GC/MS facilities, was added in 1987. The laboratory comprises extensive organic and inorganic

sections for the analysis of Environmental and Industrial Hygiene samples including:

* Organic Section composed of GC/MS, GC and HPLC.

* Organics Extraction Section with continuous liquid/liquid, soxhlet and sonication extraction apparatus and over 40 linear feet of fume hood space.

* Inorganic Section composed of metal analysis by ICP or Atomic Absorption and other inorganics by spectrophotometric ion chromatographic or ISE techniques.

* Microscopy Section utilizing polarized light and phase contrast microscopy primarily for the purpose of asbestos identification and quantitation.

* Sample Receiving Section providing adequate facilities for logging and storing of samples as required for chain of custody purposes.

Instrumentation is continually upgraded to provide state-of-the-art technology. Our major instrumentation is listed in Appendix II.

1.4 Laboratory Accreditation and Certifications

The Laboratory is accredited by American Industrial Hygiene Association, and licensed by the State of California Department of Health Services as a water, hazardous waste and AB 1803 water testing laboratory. See Appendix

III for copies of all certifications and accreditations.

Our Laboratory participates in EPA Round Robin testing, the NIOSH Proficiency Analytical Testing Program for chemical constituents and asbestos fiber counting, Research Triangle PAT program for bulk asbestos identification and the California QA program for hazardous waste and waste water analysis.

2.0 QUALITY CONTROL

2.1 Objectives

For any environmental monitoring effort, there exists some degree of uncertainty in the data due to the inherent limitations of the measurement system. The usefulness of the monitoring data depends upon the degree to which the uncertainty and limitations in the data are known. A quality control system consists of a group of internal procedures for assuring that the data from the measurement system meets prescribed criteria for data quality. The objectives of the quality control program are twofold. First, it will provide the mechanism for controlling data quality within acceptable limits. Second, it will form the basis for estimates of uncertainty by providing information necessary for defining error limits associated with the data. This is achieved through the establishment of performance criteria for precision, accuracy, sensitivity and completeness, and the design and implementation of laboratory protocols to assure that these performance criteria are met on a routine basis. ACCULAB Environmental Services maintains a stringent internal quality control program. The quality control program is implemented primarily through the use of specific checks

and calibration procedures. Data quality assessment is also achieved through the analysis of laboratory blanks, field blanks, field blank spikes, matrix spikes, matrix spike duplicates, and laboratory control samples.

All laboratory results are reviewed by a laboratory supervisor to determine the validity of the analytical data and the adherence to the specific QC protocols for accuracy, precision, sensitivity and completeness which meet the following definitions.

A.) Precision: Precision is a measurement of analytical reproducability. Laboratory measurements shall be precise to within a specified range. Laboratory precision is dependent on the analytical matrix and the skill and care of the analyst. Precision is monitored by analyzing duplicate matrix spike samples with each set of samples.

B.) Accuracy: Accuracy is a measurement of analytical correctness. Laboratory measurements shall be accurate to within a specified range. Accuracy too is dependent on the analytical technique, the nature of the sample matrix, and the skill and care of the analyst. It is also dependent on the accuracy and linearity of the method calibration. Accuracy is monitored by analyzing matrix spiked samples, blank spike samples, calibration check standards and performance evaluation samples. Accurate calibrations over the linear range of the method are assured by analyzing multi-point standards.

C.) Sensitivity: Laboratory measurements shall be sufficiently sensitive to meet required method detection limits. While detection limits are highly matrix dependent, instrument sensitivity is not. Instrument sensitivity is monitored by the routine analysis of low standards near the instrument limit of detection.

D.) Completeness: All necessary Quality Control shall be performed correctly, meet the prescribed standards and be present, well documented and filed with each set of analytical data.

3.0 OPERATIONAL PROCEDURES

3.1 Proper Selection and Use of Sample Containers

The choice of sample container is based upon the chemical constituents for which the samples are to be analyzed. Container type and size for sample collection are made in accordance with the aforementioned EPA guidance documents and are summarized in Appendix IV.

Appendix IV also contains the cleaning procedures to be followed for laboratory equipment which is used in the analysis of samples, a list of the sample preservatives to be used, the maximum holding time for the samples, and the minimum sample volume required for analysis. Sample containers are used only once, and are purchased clean and ready for use from I-Chem Research.

Samples for semivolatiles including pesticides and herbicide, chloride, sulfate, total phenolics, pH, specific conductivity are collected in glass containers which have been subjected to I-Chem washing protocol A. Protocol A consists of washing the containers in detergent followed by acid, deionized water and solvent rinses, followed by oven drying. Glass containers used for collection of samples to be analyzed for nitrate, nitrite, ammonia, total dissolved solids (TDS), total organic halogen (TOX), total organic carbon (TOC), and purgeable organics, have been subjected to I-Chem washing protocol B, which consists of washing the container in detergent, then multiple deionized water rinses, followed by air drying. Polyethylene bottles, which are used for collection of samples for metals analysis, have been subjected to I-Chem protocol C. Protocol C is similar to protocol B, but uses an additional acid rinse.

3.2 Sample Collection and Preservation

Upon sample collection, the appropriate preservative should be added to the sample in the field when possible. Unpreserved samples will be preserved upon receipt by the laboratory if requested. Liquid samples which are to be analyzed for volatiles (purgeable organics) should be collected in the prescribed 40 ml borosilicate glass vials which are equipped with Teflon-faced silicon septa and screw caps. The sample is allowed to overflow the container, the septum is placed on the meniscus formed and sealed with the screw cap. Samples are checked for entrapped air or leaks by inversion and tapping.

Three-liter amber glass bottles with Teflon-lined screw caps are used for semivolatiles by GC/MS, pesticides, herbicides, phenolics, TOX and TOC samples. 250 or 500 ml polyethylene bottles are used for metals and a variety of wet chemical procedures. Borosilicate 25 ml liquid scintillation vials with foil lined caps are used for PCB's in oil samples.

3.3 Sample Receiving and Chain of Custody

Sample custody procedures for this program are based upon EPA recommended procedures. The primary mechanism for ensuring that all of the necessary information is recorded for each sample is the use of pre-formatted "Chain of Custody and Sample Analysis Request" forms. An example of the chain of custody form is presented in Appendix V. All samples collected in the field should be labeled, dated, given an appropriate identification number, and logged on the chain of custody form. When the samples are brought to the laboratory, the designated Sample Custodian checks each container to ensure that it agrees with the listing on the chain of custody form, and that the samples are properly labeled and intact. Samples to be analyzed for volatile organics are checked for bubbles and all samples are checked for leaks. Unique Job and Sample numbers are then assigned and relevant information is entered into the computer. Sample receiving and logging instructions are listed in Appendix VI and are posted in the logging room for reference of the sample custodian.

3.4 Sample Preservation and Storage in the Laboratory

Most samples require that a preservative be added to the sample in the field, and/or that the sample be refrigerated. Preservation methods are indicated in Appendix IV. All samples which are to be delivered to the laboratory for analysis should be kept at four degrees C and transported in ice chests. At the laboratory, all samples and extracts are stored in refrigerators which are maintained at four degrees C. Appendix IV also lists the maximum allowable holding time for various samples.

Water samples to be analyzed for metals should be preserved in the field by acidifying the sample to a pH <2.0 with the addition of nitric acid. Samples not indicated as preserved will be pH tested and preserved as necessary upon receipt in the laboratory. Samples to be analyzed for metals, except mercury and chromium (VI), have a shelf life of six months if preserved in this manner.

Samples to be analyzed for pesticides and herbicides do not require the addition of a preservative. However, the samples must be refrigerated at 4 C and extracted within seven days for water and fourteen days for soils and wastes, after which the extract must be analyzed within 40 days of the sampling date.

All unused samples are returned to refrigeration after extraction or analysis and held for 30 days from the date of the final report unless prior arrangements have been made for extended storage.

3.5 Analytical Methods

For the analysis of samples, the Environmental Laboratory follows analytical methods which are published in one or more of the following publications: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846. 11/86. 3rd Ed.: Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020 (rev. 3/83). Technical Addition to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-84-017, 3/84. Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA-600/4/82-057, 7/82. Compendium of Methods for the

determination of Toxic Organic Compounds in Ambient Air EPA-600/4-84-041, 4/84, Standard Methods for the Examination of Water and Wastewater, 16th edition, AHPA-AWWA-WPCF, 1985, and Recommended Methods of Analysis for the Organic Components Required for AB 1803, 5th Ed, (revg. 4/86).

3.6 Laboratory Reagents and Preparation of Standards

All chemicals used are reagent grade or ultra pure grade. Pesticide Residue grade or nanograde solvents are used for all extractions. Each lot of solvent is tested for contamination in the laboratory before use. Reagent water is prepared by passing deionized water through a Sybron/Barnstead ion exchange resin and carbon filtration system and is used for preparation of analytical standards, matrix blanks and HPLC diluent. Analytical standards are obtained in certified kits from commercial sources. Primary standards are prepared using reagent grade chemicals when EPA or NBS traceable standards are not available. The prepared standard is checked and verified before use. Whenever a new stock standard is prepared, it is compared to the old standard or a check standard from a different source to assure accuracy. Calibration standards are recorded by the source and a lot number in a standards notebook so that the calibration used in analytical determination can be checked. In inorganic analyses, a series of calibration standards is prepared and used for instrument calibration each day before samples are analyzed. The series of standards includes a set of working standards and blanks which are prepared before each set of analyses.

3.7 Calibration Procedures:

Standards are prepared as described in Section 3.6. Each instrument is calibrated using a set of three to five standards at different concentrations and a calibration-blank. During each analytical series, the instrument response and baseline fluctuation are monitored by reanalyzing midpoint standards and calibration blanks. A low standard is analyzed to verify the instrument detection limit. The low standard concentration is set between 2-5 detection limits and it's quantitation must fall within 30% of the true value.

3.7a Analytical Balances

Individual analysts are designated to calibrate balances against National Bureau of Standards certified weights monthly. Balances of questionable linearity are removed from service until attended to by a representative of the manufacturer. Balances are also serviced annually by the manufacturer's service representative. Each calibration and maintenance event is recorded in the instrument log.

3.7b Gas Chromatographs (GC)

Gas Chromatographs are calibrated prior to use with EPA traceable or prepared standards of the analyte of interest at three to five concentration levels covering the linear working range of the detectors. An internal standard calibration procedure is adopted for EPA methods 608/8080, and most electron-capture methods. A known amount of internal standard is added to the calibration standard, blanks and samples. The calibration factor (Response Ratio) and retention time windows are then established for the analytes.

External standard calibrations, used for most other methods, are performed identically, except for the ommision of the internal standards. In this case, absolute retention times and peak areas (rather than response ratios) are used to generate the calibrations. The Retention Time windows and calibration factors are verified each day by injection of midpoint standards and calibration blanks.

Midpoint standards are also used to monitor the instrument response factor during each subsequent analytical series.

Any significant change in instrument performance or sensitivity is corrected before samples are run. Check samples from DHS/EPA are analyzed on a regular basis.

Appendix VII shows an example of three point calibration and response factor obtained for Aroclor 1260.

Response factor: (conc/area) X internal standard area

Range: Response factor of midpoint standards must fall within 15% of previous three-point calibration.

Frequency: One standard and calibration-blank per run series or per each 15 samples.

A low standard is analyzed with each new three-point calibration.

A checkstandard is analyzed with every batch of new calibration standards.

3.7c Gas Chromatography/Mass Spectroscopy (GC/MS)

Tuning: The mass spectrometer must be tuned to meet EPA designated ion abundance criteria for bromofluorbenzene (BFB) for volatiles analysis and decafluorotriphenyl phosphine (DFTPP) for semivolatiles analysis. These ion abundance criteria shall have been achieved and documented within 12 hours of any analysis.

Calibration: Initially, three to five point calibrations for all target compounds shall be performed with 15% linearity. Every 24 hours, single point calibrations at the midpoint standard shall be run and be within 15% of the initial mean three-point calibration for all target compounds.

Calibration blanks: One instrument or method blank per sample set or per day for volatiles or semivolatiles shall be analyzed.

Matrix spikes: One matrix spike and one matrix spike duplicate per matrix or per 20 samples shall be analyzed for volatile and semivoltiles. Recoveries shall fall within defined method limits.

Surrogates and Internal Standards: All standards, samples and blanks for both volatiles and semi-volatiles analysis contain surrogate and internal standard compounds. For all samples, surrogate standards are added to the matrix before extraction and used to monitor extraction efficiency. Internal standards are added to extracted samples, standards and blanks and are used to calculate relative retention times and relative responses for target compounds.

3.7d Atomic Absorption (AA)

A three-point calibration is provided at the beginning of each sample set and then checked using midpoint standards and blanks at intervals of 10 to 20 samples throughout the analysis.

Range: Readings for midpoint standards must fall within 10% of the three-point calibration. Absorbance must fall within 3 standard deviations of the previous calibration runs.

Frequency: One midpoint standard per sample set or per each 15 samples. Each standard must be followed by a calibration blank. A low standard and a checkstandard are analyzed with each sample set.

3.7e Inductively-Coupled Plasma (ICP)

Three-point calibration is provided at the beginning of each sample set and then checked using midpoint standards and calibration blanks at intervals of 10 to 20 samples throughout the analysis. Myers-Tracy internal standard signal compensation is utilized for ICP calibrations and analyses.

Range: Readings for midpoint standards must fall within 10% of the three-point calibration.

Frequency: One midpoint standard per sample set or one per each 15 samples. Each standard must be followed by a calibration-blank. A low standard, a checkstandard and an interference checkstandard are analyzed with each sample set.

3.8 Analysis of Quality Control Samples

In addition to the careful calibration of all laboratory instrumentation with standard solutions, a series of quality control samples is included in all analytical runs, and are analyzed on the average of once per every 20 samples. These samples are used to flag analyses that need to be rerun. The types of control samples used are: laboratory blanks, field blank spikes, matrix spikes, blank spikes, matrix spike duplicates, and laboratory check samples.

3.8a Analysis of External Reference Standards

Metals: Checkstandards are prepared from separate lots of commercially available certified standards and re analyzed with every set of samples.

Organics: Checkstandards are prepared from a different lot or supplier of commercial standards and analyzed when a new stock calibration standard is prepared.

3.8b Analysis of Matrix Blanks

Matrix blanks are designed to control the level of contamination introduced by reagents, extracting solvents, glassware, etc. They are prepared and processed in exactly the same manner as samples and spikes, except that no standard is spiked into them. No matrix is used for bulk samples, reagent water is used for water samples.

Range: Readings must fall within 3 SD of previous analyses.

Frequency: Minimum: one per sample set
Drinking water - one per 10 samples
Soil/waste - one per 20 samples

3.8c Analysis of Matrix Spiked Samples

Spiked samples are designed to monitor recovery (accuracy) of the method. They are prepared by spiking a portion of an actual sample with a known amount of standard and then taking it through all steps of the procedure. The spiked levels should be between 10 DL and the upper calibration point, or twice the concentration of the analyte in the sample, whichever is greater. Samples (of similar matrix) from previous jobs can be used for spiking.

Range: Recovery must fall within method acceptance limits.

Frequency: Minimum of one per sample set per matrix.
Drinking water - one per 10 samples.
Soil/waste - one per 20 samples.

3.8d Analysis of Matrix Spike Duplicates

Duplicate spiked samples are designed to monitor the precision of the method. Two or more separate portions of a sample are weighed, spiked and analyzed.

Range: Replicates must fall within the acceptance limits of the method.

Frequency: Minimum of one per run per matrix.
Drinking water: one per 10 samples.
Soil/waste: one per 20 samples.

3.8e Analysis of Blank Spikes

This spike is designed to measure accuracy of extraction and analytical techniques and is not subject to undesirable matrix effects.

Spikes should be prepared into reagent water or clean extraction glassware if solid samples are analyzed.

Range: Recovery must fall within method acceptance limits.

Frequency: One per matrix per set of samples.

4.0 ACCEPTANCE LIMITS FOR PRECISION AND ACCURACY

The method acceptance limits are used until sufficient data are collected to calculate precision and accuracy limits for each test method and each matrix. The acceptance limits are calculated as follows:

Recovery:

$$\% R = 100 \times (\text{spiked sample} - \text{sample}) / \text{spike conc.}$$

Acceptance limits: Within 3 RSD of mean recovery

Replicates: $RPD = 100 \times (MSD1 - MSD2) / (MSD1 + MSD2)/2$

(MSD : Matrix Spike Duplicate)

Replicate acceptance limit: Mean RPD + 3 RSD

5.0 INSTRUCTIONS FOR CORRECTIVE ACTIONS WHEN QC IS OUT OF RANGE

When QC data for a run are Out of Range, corrective actions must be taken and the analysis repeated to provide acceptable results.

5.1 Calibration is Out of Range

5.1a Gas Chromatography or GC/MS - Response Factor

A Response Factor is originally established for each target compound by three-point calibration and then monitored by analyzing the midpoint standard with each sample set.

Range: Response Factor of the midpoint standard must fall within 15% of the previous three-point calibration.

Probable cause of outliers: Bad calibration standards, poor instrument maintenance, injection volume or split ratio need to be adjusted.

Corrective actions: 1. Replace GC septa and liners, bake columns, clean detectors and check for leaks. Check split ratio if applicable. Make sure that sample volume injected is consistent with method specifications. 2. Prepare fresh calibration standards and recalibrate method using three-point calibration. Re-inject all samples.

5.1b Atomic Absorption - Absorbance

Three point calibration is to be provided with each sample set. Absorbance of one of the standards (S1) is monitored as the measure of instrument response.

Range: Absorbance of calibration standard must fall within mean 3 standard deviations of previous analyses.

Probable cause of outliers: Bad standards, instrument out of alignment, poor lamp.

Corrective actions: 1. Check burner or graphite furnace alignment, clean or replace nebulizer and set proper aspiration rate, adjust flow rates of gases for burner, check wavelength, slit and other instrument settings. 2. Check absorbance with fresh standard (S1) and if the absorbance is still out of range (low), replace the lamp. If this does not correct the problem, indications are that the instrument needs a service call. Do not proceed with analysis until the problem is resolved.

5.1c Inductively-Coupled Plasma

Three-point calibration is to be provided with each sample set. The emission of the internal standard is monitored as the measure of instrument response.

Sample range: The emission of the internal standard must fall within 30% of the internal standard in the calibration standard.

Probable cause of outliers: Bad standards, leaking or clogged nebulizer or drain, worn pump tubing, incorrect wavelength, improperly aligned torch.

Corrective actions: 1. Clean or replace nebulizer, replace pump tubing, align torch. 2. Repeat calibration, and if under control, re-inject all samples. 3. If out of control conditions still exist, do not proceed with analysis. This indicates that a service call may be necessary.

5.2 Corrective Action Peculiar to GC/MS

1.) Tuning drifts out. Retune and rerun any samples further than 12 hours from the last good tune.

2.) Calibration either not linear or not within 15 percent of previous linear 3-point calibration.

Rerun 3-point calibration to within 15 percent linearity and reanalyze all positive samples.

3.) Surrogate Recoveries out of range. Volatiles: Reanalyze samples, if still out, report matrix interference. Semi-volatiles: Re-extract and reanalyze samples. If still out, report matrix interference.

Internal Standards Out of Range:

Volatiles: Reanalyze samples, if still out, a matrix effect exists and the effected target compounds need to be manually requantitated.

Semivolatiles: Reanalyze extracts, if still out, see volatiles.

Matrix Spikes are Out of Range:

A.) If surrogates are in range, report matrix interference.

B.) If surrogates are out, prepare new spikes and re-extract. Reanalyze all samples and spikes. If still out, report matrix interference.

5.3 Method Blank is Out of Range

Range: Method Blank must fall within 3 SD of previous method blanks.

Probable cause of outliers: contamination of reagents or glassware.

Corrective actions: 1. Prepare fresh reagents, check distilled water and glassware for purity, use fresh bottle of acids, extraction solvents, etc. Also, check for possible contamination from laboratory environment (e.g., dust fall, solvent vapors, etc.). 2. Prepare a fresh method blank and if it is within the range, start all sample analysis from Step 1 of the procedure (You must not re-inject the samples!).

5.4 Recovery of Matrix Spike is Out of Range

Range: Recovery must fall within acceptance limits of the method.

Probable cause of outliers: Spike level is too low compared to sample level, matrix interference.

Corrective actions: 1. If duplicates and Blank Spikes are in range (and appropriate spike level is attained) anotate client report to indicate matrix interference. 2. If duplicates and/or Blank Spikes are out of range, repeat complete analysis including spikes and duplicates.

5.5 Matrix Spiked Duplicates are Our of Range

Range: Results must fall within 10% of expected value.

Probable cause of outliers: Poor precision in preparing samples.

Corrective actions: 1. Repeat analysis of samples from beginning and follow steps of the procedure more carefully. Also, check for possible contamination from laboratory environment.

5.6 Recovery of Blank Spike is Out of Range

Range: Results must fall within acceptance limits of the method.

Probable cause of outliers: Poor laboratory technique, including contaminated glassware, overheating or over evaporating during sample concentration, incorrect final volume or errors in calculation.

Corrective Actions: Determine the source of the problem. If the problem lies in incorrect final volume or calculation error, correct the final volumes and recalculate all samples. If not, all samples and quality controls must be re-analyzed from the beginning.

5.7 Check Standard is Out of Range

A standard prepared from separate stock is analyzed as follows: For GC: each time a new lot of standards is used for calibration. For Atomic Absorption and ICP: each set of samples analyzed.

Range: Results must fall within 10% of expected value.

Probable cause of outliers: Deterioration or contamination of stock calibration standard in use.

Corrective actions: 1. Prepare fresh calibrations standards and check against checkstandards. If still out of range prepare fresh checkstandard.

5.8 Reference Standard is Out of Range

Reference Standards obtained from commercial sources or NBS are periodically analyzed.

Range: Results must fall within established ranges.

Probable cause of outliers: Bad calibration standards, poor sample preparation techniques.

Corrective actions: 1. Prepare fresh calibration standards and re-inject reference sample. If reference sample now falls into acceptable range, re-inject all samples. 2. If out of range condition persists, re-run all samples from Step 1 of the procedure.

6.0 REVIEW OF ANALYTICAL AND QUALITY CONTROL DATA BY SUPERVISOR

Computer generated quality control reports are printed with each laboratory job. These reports include all relevant quality control parameters including response factor and linearity of calibrations, recovery of spikes and duplicates, and matrix blanks. Results outside the linear range of the method are also flagged.

These reports as well as all laboratory calculations for each batch of samples are reviewed and signed by a Senior Chemist before results are released. Client reports include method numbers and detection limits.

7.0 DOCUMENTATION OF MAINTENANCE AND REPAIR OF INSTRUMENTS

7.1 Regular In-House Maintenance

Each chemist in the Lab has been assigned care of certain instruments.

7.1a GC and MS Instruments

Replace septa, liners, columns. Clean and bake detectors and columns. Replace worn-out parts in autosamplers.

7.1b Atomic Absorption (AA) and ICP instruments

Clean and replace nebulizers and torch assemblies. Replace lamps in AA. Align graphite furnace and hydride generator.

7.1c Spectrophotometers (UV/VIS, IR)

Clean curvettes. Calibrate wavelength.

7.1d Ion Specific Meters and pH Meters

Calibrate with at least 3 standards. Replace electrodes when response is not linear.

7.2 OUTSIDE MAINTENANCE

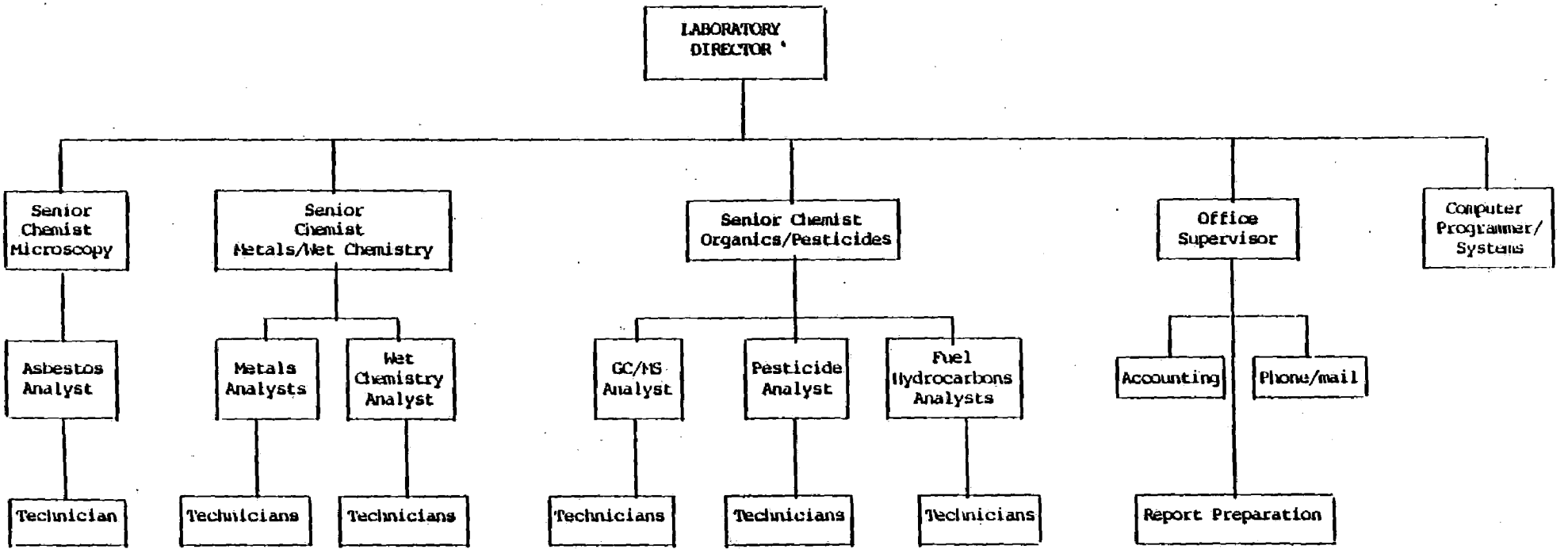
Outside maintenance is provided by the manufacturer's service engineers any time that the instruments show signs of deterioration in performance that cannot be corrected by in-house maintenance. At least one "Preventative Maintenance" service call has to be provided annually for each instrument in the Laboratory even if no signs of performance deterioration are noticeable. Records of service calls and maintenance are kept on file.

8.0 GOOD LABORATORY PRACTICES

The laboratory was recently moved into a new facility designed and constructed with the help of professional laboratory construction consultants. The ceiling shower fire system, personal eyewash and shower systems, hood face velocities, fire extinguisher maintenance as well as building security are under the direction of a full-time Facilities Engineer. The laboratory has a designated, experienced Safety Officer who oversees general safety practices throughout the laboratory, as well as trained evacuation, first-aid and CPR personnel. Appropriate storage of chemicals and MSDS sheets is under the supervision of a Senior Chemist. Disposal of hazardous wastes is coordinated by a licensed hazardous waste disposal company. Individual laboratory staff members are assigned the responsibilites of instrument maintenance and the distilled water system. The water system has a continuous conductivity indicator installed to indicate when water quality falls below acceptable levels. Appropriate training is given to all laboratory personnel in the safe use of the equipment they utilize as well as the general use of common laboratory facilities. Analytical methodologies are written out and maintained as are laboratory notebooks. In depth training is provided to those individuals responsible for purchasing, sample receipt and log in, and for the correct washing of glassware.

Appendix I.

Organizational Chart


LABORATORY DIRECTOR
Senior Chemist Microscopy
Senior Chemist Metals/Wet Chemistry
Senior Chemist Organics/Pesticides
Office Supervisor
Computer Programmer/ Systems
Asbestos Analyst
Metals Analysts
Wet Chemistry Analyst
GC/MS Analyst
Pesticide Analyst
Fuel Hydrocarbons Analysts
Accounting
Phone/mail
Technician
Technicians
Technicians
Technicians
Technicians
Technicians
Report Preparation

Appendix II.

Instrumentation and Equipment

MAJOR INSTRUMENTATION

I. Gas Chromatographs (GC) (Perkin Elmer)*

#	MODEL	DETECTORS
1	3920	1 FID
1	SIGMA 10	1 FID
1	SIGMA 115	2 FID
1	SIGMA 1	2 FID
1	SIGMA 3B	1 ECD
3	SIGMA 300 (1 with heated headspace autosampler)	1 ECD, 2 FID, 1 PID
1	8500 with O.I. Auto Purge Trap	1 PID, 1 HALL
1	8410	1 NPD
1	SIGMA 2000	2 ECD

* All with autosamplers

II. High Performance Liquid Chromatrographs (HPLC)

#	MODEL	DETECTORS
1	Series 4 HPLC with ISS 100 Autosampler Fluoresence	1 Kratos 757 UV 1 PE 6505 1 PE LC 85B UV

III. Ion Chromatography (IC)

#	MODEL	DETECTORS
1	Dionex Series 4000 with Hitachi 655 A Autosampler	2 Conductivity

IV. Gas Chromatrograph/Mass Spectrometers (GC/MS)

#	MODEL
1	Finnigan 1020 OWA with Tekman Auto purge trap and upgraded hardware and software
1	Finnigan 5100 with Varian Autosampler

V. Inductively-Coupled Plasma Spectrophotometers (ICP)

#	MODEL
1	Perkin Elmer 5500 with autosampler
1	Perkin Elmer Plasma II with autosampler, dual vacuum monochromaters (1 high resolution, 1 standard resolution).

VI. Atomic Absorption Spectrophotometers (AA)

#	MODEL
1	Perkin Elmer 370 with Hydride Generator, Cold Vapor generator and Graphite Furnace
1	Perkin Elmer 5000 with Flame burner and autosampler

VII. Infrared and UV Spectrophotometers

#	MODEL
1	Perkin Elmer 727B IR
1	Hitachi 200 UV

VIII. Chromatography Data Systems

#	MODEL
4	Dynamic Solutions Maxima 820

IX. Laboratory Information Management Systems (LIMS)

#	MODEL
1	IBM 9375 VM Minicomputer with application software developed in-house.

X. Microscopes

#	MODEL
3	Olympus BHSP dispersion staining Polarized Light
4	Phase Star Phase Contrast

XI. Ancillary Laboratory Equipment

#	MODEL
3	Analytical Balances
4	Top loading balances
2	Flash point apparatus, Pensky-Martins
3	Orion pH meters with Ion Specific Electrodes
4	Rotary Evaporators, Buchi
3	Ovens
1	N-EVAP analytical evaporator
1	Walk-in refrigerator
1	Still, Corning Megapure
1	Water Purification System, Barnstead Nanopure

Appendix III.

Certifications

STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES

HAZARDOUS WASTE TESTING LABORATORY CERTIFICATE

is hereby granted to

FIREMAN'S FUND ENVIRONMENTAL LABORATORY

to conduct analysis of hazardous waste in the following test categories:

As specified in the Hazardous Waste Testing Laboratory Certification List

This Certificate is granted in accordance with provisions of Article 8.5, Chapter 6.5. Division 20 of the Health and Safety Code.

Certificate No. 109

Expiration Date April 3, 1990

Issued at Berkeley, on May 17, 1988

by

Chief, Hazardous Materials Laboratory Section

HAZARDOUS WASTE TESTING LABORATORY CERTIFICATION LIST

Hazardous Materials Laboratory Section, California Department of Health Services, 2151 Berkeley Way, Berkeley, CA 94704

Firemen's Fund Insurance Companies
Environmental Laboratory
3700 Lakeville Hgwy
Petaluma, CA 94952

PHONE: (707)778-4160

LABORATORY CATEGORY: Commercial
CERTIFICATE NUMBER: 109

	ORGANIC CHEMICAL TESTING	METHOD NUMBER (DATE CERTIFIED)	(Y = CERTIFIED; N = NOT CERTIFIED)
1.1	Halogenated Volatile Organics	8010(04-04-86)	Y
1.2	Non-Halogenated Volatile Organics	8015(04-04-86)	Y
1.3	Aromatic Volatile Organics	8020(05-17-88)	Y
1.4	Acrolein, Acrylonitrile, Acetonitrile	8030(04-04-86)	Y
1.5	Phenols	8040(04-04-86)	Y
1.6	Phthalate Esters	8060(04-04-86)	Y
1.7	Organochlorine Pesticides	8080(04-04-86)	Y
1.8	Polychlorinated Biphenyls (PCBs)	8080(04-04-86)	Y
1.9	Nitroaromatics and Cyclic Ketones	8090(04-04-86)	Y
1.10	Polynuclear Aromatic Hydrocarbons	8310(04-04-86) 8100(04-04-86)	Y
1.11	Chlorinated Hydrocarbons	8120(04-04-86)	Y
1.12	Organophosporus Pesticides	8140(04-04-86)	Y
1.13	Chlorinated Herbicides	8150(04-04-86)	Y
1.14	Carbamates	632(04-04-86)	Y
1.15	GC/MS Method for Volatile Organics	8240(04-04-86)	Y
1.16	GC/MS Method for Semivolatile Organics	8270(04-04-86)	Y

	INORGANIC CHEMICAL TESTING	METHOD NUMBER (DATE CERTIFIED)			(Y = CERTIFIED; N = NOT CERTIFIED)
2.1	Antimony	6010(04-04-86)	7040(04-04-86)	7041(04-04-86)	Y
2.2	Arsenic		7060(04-04-86)	7061(04-04-86)	Y
2.3	Barium	6010(04-04-86)	7080(04-04-86)	7081(04-04-86)	Y
2.4	Beryllium	6010(04-04-86)	7090(04-04-86)	7091(04-04-86)	Y
2.5	Cadmium	6010(04-04-86)	7130(04-04-86)	7131(04-04-86)	Y
2.6	Chromium(VI)		7196(04-04-86)		Y
2.7	Chromium(total)	6010(04-04-86)	7190(04-04-86)	7191(04-04-86)	Y
2.8	Cobalt		7200(04-04-86)	7201(04-04-86)	Y
2.9	Copper	6010(04-04-86)	7210(04-04-86)	7211(04-04-86)	Y
2.10	Lead	6010(04-04-86)	7420(04-04-86)	7421(04-04-86)	Y
2.11	Mercury		7470(04-04-86)	7471(04-04-86)	Y
2.12	Molybdenum		7480(04-04-86)	7481(04-04-86)	Y
2.13	Nickel	6010(04-04-86)	7520(04-04-86)	7521(04-04-86)	Y
2.14	Selenium		7740(04-04-86)	7741(04-04-86)	Y
2.15	Silver	6010(04-04-86)	7760(04-04-86)	7761(04-04-86)	Y
2.16	Thallium	6010(04-04-86)	7840(04-04-86)	7841(04-04-86)	Y
2.17	Vanadium	6010(04-04-86)	7910(04-04-86)	7911(04-04-86)	Y
2.18	Zinc	6010(04-04-86)	7950(04-04-86)	7951(04-04-86)	Y
2.19	Cyanide			9010(04-04-86)	Y
2.20	Fluoride	340.2(04-04-86)			Y
2.21	Sulfide			9030(04-04-86)	Y

	OTHER		
	California Waste Extraction Test	(04-04-86)	Y
	Physical Property Testing	(04-04-86)	Y
5.0	Aquatic Toxicity Testing		N
6.0	Bulk Asbestos Testing	(04-04-86)	Y
7.0	Total Organic Lead	(05-17-88)	Y
8.0	Total Petroleum Hydrocarbon		

AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

Fireman's Fund Risk Management Services Environmental Laboratory Petaluma, California

has fulfilled AIHA criteria for
Industrial Hygiene Laboratory Accreditation
since June, 1977

This accreditation shall be effective until
the 1st day of June, 1989
subject to continued compliance with
AIHA accreditation criteria.

Chairman
Laboratory Accreditation
Committee

President
American Industrial Hygiene
Association

#103
Accreditation Number

September 8, 1986
Date

Appendix IV.

Required Containers, Preservation Techniques, and Holding Times

REQUIRED CONTAINERS, PRESERVATION TECHNIQUES, AND HOLDING TIMES

Name	Container[1]	Preservation	Maximum Holding Time
Bacterial Tests:			
Coliform, Fecal and total	P, G	Cool, 4°C, 0.008% $Na_2S_2O_3$	6 hours
Fecal streptococci	P, G	Cool, 4°C, 0.008% $Na_2S_2O_3$	6 hours
Inorganic Tests:			
Acidity	P, G	Cool, 4°C	14 days
Alkalinity	P, G	Cool, 4°C	14 days
Ammonia	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Biochemical oxygen demand	P, G	Cool, 4°C	48 hours
Bromide	P, G	None required	28 days
Biochemical oxygen demand, carbonaceous	P, G	Cool, 4°C	48 hours
Chemical oxygen demand	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Chloride	P, G	None required	28 days
Chlorine, total residual	P, G	None required	Analyze immediately
Color	P, G	Cool, 4°C	48 hours
Cyanide, total and amenable to chlorination	P, G	Cool, 4°C, NaOH to pH>12, 0.6g ascorbic acid	14 days
Fluoride	P	None required	28 days
Hardness	P, G	HNO_3 to pH<2, H_2SO_4 to pH<2	6 months
Hydrogen ion (pH)	P, G	None required	Analyze immediately
Kjeldahl and organic nitrogen	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Metals:			
Chromium VI	P, G	Cool, 4°C	24 hours
Mercury	P, G	HNO_3 to pH<2	28 days
Metals, except chromium VI and mercury	P, G	HNO_3 to pH<2	6 months
Nitrate	P, G	Cool, 4°C	48 hours
Nitrate-nitrite	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Nitrite	P, G	Cool, 4°C	48 hours

1 P-Polyethylene, G-Glass

Name	Container[1]	Preservation	Maximum Holding Time
Metals: (cont'd)			
Oil and grease	G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Organic carbon	P, G	Cool, 4°C, HCl or H_2SO_4 to pH<2	28 days
Orthophosphate	P, G	Filter immediately, cool, 4°C	48 hours
Oxygen, Dissolved Probe	G Bottle and top	None required	Analyze immediately
Winkler	do	Fix on site and store in dark	8 hours
Phenols	G only	Cool, 4°C, H_2SO_4 to pH<2	28 days
Phosphorus (elemental)	G	Cool, 4°C	48 hours
Phosphorus, total	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Residue, total	P, G	Cool, 4°C	7 days
Residue, Filterable	P, G	Cool, 4°C	7 days
Residue, Nonfilterable (TSS)	P, G	Cool, 4°C	7 days
Residue, Settleable	P, G	Cool, 4°C	48 hours
Residue, volatile	P, G	Cool, 4°C	7 days
Silica	P	Cool, 4°C	28 days
Specific conductance	P, G	Cool, 4°C	28 days
Sulfate	P, G	Cool, 4°C	28 days
Sulfide	P, G	Cool, 4°C, add zinc acetate plus sodium hydroxide to pH>9	7 days
Sulfite	P, G	None requied	Analyze immediately
Surfactants	P, G	Cool, 4°C	48 hours
Temperature	P, G	None required	Analyze immediately
Turbidity	P, G	Cool, 4°C	48 hours
Organic Tests:			
Purgeable Halocarbons	G, Teflon-lined septum	Cool, 4°C, 0.008% $Na_2S_2O_3$	14 days
Purgeable aromatic hydrocarbons	G, Teflon-lined septum	Cool, 4°C, 0.008% $Na_2S_2O_3$ HCl to pH2	14 days
Semivolatile Organics:			
Liquid Samples			
No Residual Chlorine Present	1-gal. or 2 1/2-gal. amber glass with Teflon liner	Cool 4°C	Samples must be extracted within 7 days and extracts analyzed within 40 days

1 P-Polyethylene, G-Glass

Name	Container	Preservation	Maximum Holding Time
Semivolatile Organics: (cont'd)			
Residual Chlorine Present	1-gal. or 2 1/2-gal. amber glass with Teflon liner	Add 3 mL 10% sodium thiosulfate per gallon, Cool, 4°C	Samples must be extracted within 7 days and extracts analyzed within 40 days
Soil/Sediments and Sludges			
Waste Samples	8-oz. widemouth with Teflon liner	Cool, 4°C	Samples must be extracted within 14 days and extracts analyzed within 40 days
TOX (water)	Glass teflon lined cap	Cool, 4°C, pH 2, H_2SO_4	7 days
TOX (soil, waste)	Glass teflon lined cap	Cool, 4°C	14 days

Appendix V.

COC Form

ACCULAB

3700 Lakeville Highway, Petaluma, CA 94952
P.O. Box 808024, Petaluma, CA. 94975-8024
Telephone: (707) 763-8248 FAX: (707) 763-4065

SAMPLE CHAIN OF CUSTODY / WORK ORDER

Client's Name _____ Phone _____

Address _____

City, State, Zip _____

Client's or Representative's Signature _____

(signature authorizes the work and terms listed below)

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pick up samples.

| PROJ. NO. | PROJECT NAME | | |

Appendix VI.

Sample Receiving and Logging Instructions

I. Sample Receiving:

A. Check and note condition of samples.

B. Verify accuracy and completeness of chain-of-custody. Should include:

1. Client name, address and phone number.
2. Client sample I.D.'s
3. Client job or survey number.
4. Date collected
5. Date received (time stamp upon receipt).
6. Analyses requested
7. Client release signature and any courier release signatures.

C. Sign chain of custody, copy to client if applicable.

D. Generate Analysis Request Form where applicable.

II. Sample log in:

A. Assign job number.

B. Assign unique laboratory numbers to each sample.

C. File sample receiving and logging sheet in log book.

D. Enter Job #, Lab #'s and client sample #'s into computer.

III. Sample Containers, Preservation, and Holding Times:

A. Preserve and record preservation on samples and analysis request form, where applicable, according to Table 2-16 SW846 (see Appendix IV).

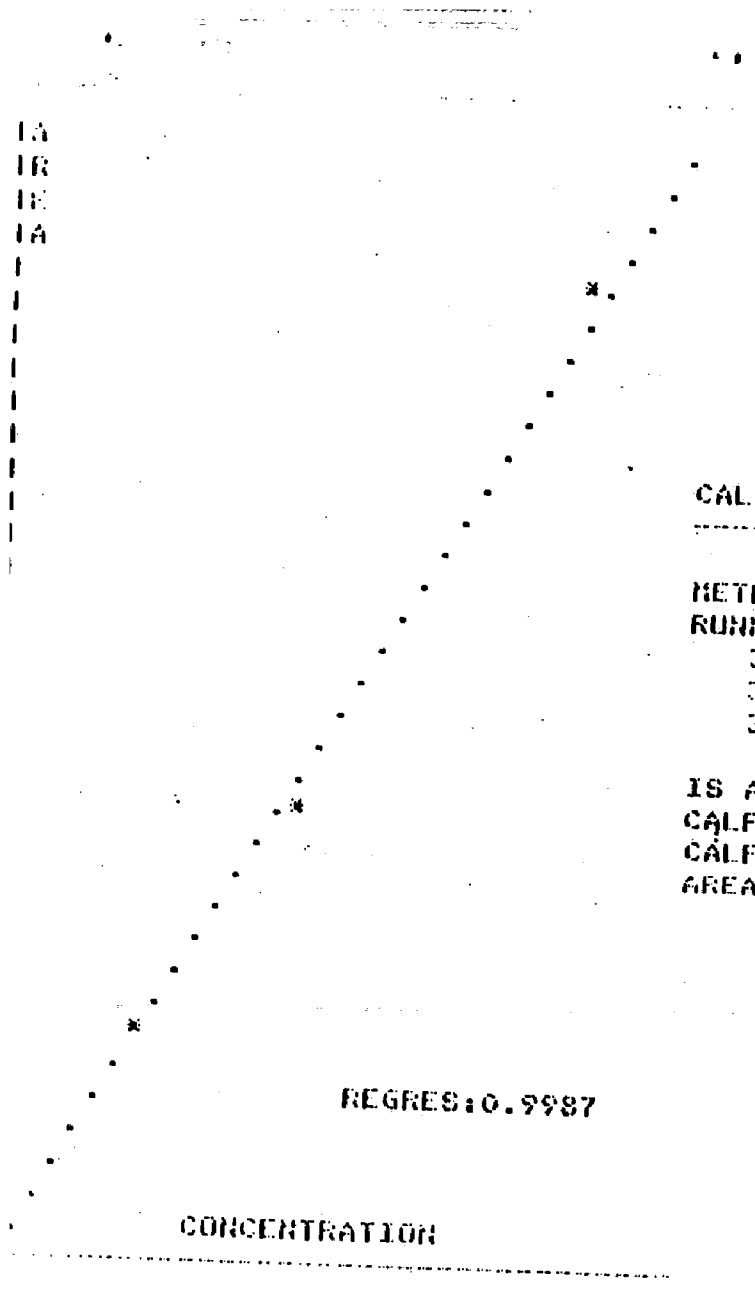
IV. Sample Storage:

A. Immediately after receipt, place all environmental samples except purgeables (EPA 601, 602, 624) in 4 C walk-in regrigerator.

B. Place purgeables in dedicated refrigerator marked "Purgeable Water Samples Only". Check for any trapped bubbles, note on chain of custody.

Appendix VII.

Sample 3-pt. Calibration



CAL:AR060

DATE:MAR 2,1989

METHOD:60 DAVE BUSCH USH UG ECDP12 ACEC6

RUNNO	CONC UG	AREA	CALF	ERROR%
35	1.000	30.481	0.033	11.7
36	2.000	63.445	0.032	7.3
37	4.000	139.099	0.029	2.1

IS AREA=4.682
CALF =0.0294
CALF ERR%= 6.7
AREA UPPER LIMIT:166.9

REGRES:0.9987

CONCENTRATION

Appendix VIII.

Definitions

Instrument Detection Limit:

The instrument detection limit is based on the signal-to-noise-ratio. Three to five times the signal-to-noise-ration is considered to be the instrument detection limit. The noise level of the instrument is computed by multiple determination of the blank in the case of Atomic spectroscopy and the low standard in the case of GC, GC/MS and HPLC.

Practical Quantitation Limit (Reporting Limit):

The Reporting Limit is the lowest level that can be reliable achieved within the specified limits of precision and accuracy during routine laboratory operating conditions. The reporting limit is about 3 to 5 times the DL and is corrected for dilution and interferences.

Method Blank, Travel Blank, Matrix Duplicate, Matrix Spike, Blank Spike, Laboratory Control Sample.

Method Blank is a reagent blank carried through the entire analytical procedure. Each batch of 20 samples is accompanied by a method blank, which provides a check on reagents and contaminants introduced in the chemical procedure.

Travel Blank is analyte free water brought to the field in sealed containers and transported back to the laboratory with samples. The travel blank is a check on sample contamination originating from sample transport, shipping and handling conditions.

Field Matrix Duplicate is a sample duplicate collected at the sampling site and provides a check on sampling equipment and technique for precision.

Matrix Spike contains a known amount of a particular constituent. The spikes provide a proficiency check for accuracy of the analytical procedures. The matrix spikes determine the extent of matrix interference on analyte recovery and sample precision. The spikes are processed at the rate of once in 20 samples.

Blank Spikes are spiked into clean matrix and are used to detect poor analytical technique. One is analyzed with each set of samples.