

15 August, 2003

Bruce Lewis
Environmental Resources Management
2525 Natomas Park Drive, Suite 350
Sacramento, CA 95833

RE: Aerojet RI/FS
Work Order: P308035

Enclosed are the results of analyses for samples received by the laboratory on 07/31/03 13:01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Angelee Cari For Mark Shipman
Project Manager

CA ELAP Certificate #2374

Environmental Resources Management
2525 Natomas Park Drive, Suite 350
Sacramento CA, 95833

Project: Aerojet RI/FS
Project Number: N/A
Project Manager: Bruce Lewis

P308035
Reported:
08/15/03 12:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A49-LBP01-0	P308035-01	Soil	07/31/03 09:40	07/31/03 13:01
A49-LBP01-0.5	P308035-02	Soil	07/31/03 09:50	07/31/03 13:01
A49-LBP01-1	P308035-03	Soil	07/31/03 09:55	07/31/03 13:01
A49-LBP02-0	P308035-04	Soil	07/31/03 10:04	07/31/03 13:01
A49-LBP02-0.5	P308035-05	Soil	07/31/03 10:15	07/31/03 13:01
A49-LBP02-1	P308035-06	Soil	07/31/03 10:24	07/31/03 13:01
A49-LBP03-0	P308035-07	Soil	07/31/03 10:55	07/31/03 13:01
A49-LBP03-0.5	P308035-08	Soil	07/31/03 11:04	07/31/03 13:01
A49-LBP03-1	P308035-09	Soil	07/31/03 11:09	07/31/03 13:01
A49-LBP09-0	P308035-10	Soil	07/31/03 11:20	07/31/03 13:01
A49-LBP09-0.5	P308035-11	Soil	07/31/03 11:25	07/31/03 13:01
A49-LBP09-1	P308035-12	Soil	07/31/03 11:30	07/31/03 13:01
A49-LBP10-0	P308035-13	Soil	07/31/03 11:45	07/31/03 13:01
A49-LBP10-0.5	P308035-14	Soil	07/31/03 11:50	07/31/03 13:01
A49-LBP10-1	P308035-15	Soil	07/31/03 11:55	07/31/03 13:01
A49-ASB01-0	P308035-16	Soil	07/31/03 12:45	07/31/03 13:01

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Total Metals by EPA 6000/7000 Series Methods Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A49-LBP01-0 (P308035-01) Soil Sampled: 07/31/03 09:40 Received: 07/31/03 13:01									
Lead	12	0.22	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP01-0.5 (P308035-02) Soil Sampled: 07/31/03 09:50 Received: 07/31/03 13:01									
Lead	7.6	0.23	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP01-1 (P308035-03) Soil Sampled: 07/31/03 09:55 Received: 07/31/03 13:01									
Lead	4.4	0.24	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP02-0 (P308035-04) Soil Sampled: 07/31/03 10:04 Received: 07/31/03 13:01									
Lead	7.5	0.25	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP02-0.5 (P308035-05) Soil Sampled: 07/31/03 10:15 Received: 07/31/03 13:01									
Lead	8.1	0.24	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP02-1 (P308035-06) Soil Sampled: 07/31/03 10:24 Received: 07/31/03 13:01									
Lead	5.2	0.25	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP03-0 (P308035-07) Soil Sampled: 07/31/03 10:55 Received: 07/31/03 13:01									
Lead	11	0.25	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP03-0.5 (P308035-08) Soil Sampled: 07/31/03 11:04 Received: 07/31/03 13:01									
Lead	6.5	0.25	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP03-1 (P308035-09) Soil Sampled: 07/31/03 11:09 Received: 07/31/03 13:01									
Lead	6.1	0.25	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	

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**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A49-LBP09-0 (P308035-10) Soil Sampled: 07/31/03 11:20 Received: 07/31/03 13:01									
Lead	13	0.21	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP09-0.5 (P308035-11) Soil Sampled: 07/31/03 11:25 Received: 07/31/03 13:01									
Lead	12	0.25	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP09-1 (P308035-12) Soil Sampled: 07/31/03 11:30 Received: 07/31/03 13:01									
Lead	10	0.21	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP10-0 (P308035-13) Soil Sampled: 07/31/03 11:45 Received: 07/31/03 13:01									
Lead	31	0.24	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP10-0.5 (P308035-14) Soil Sampled: 07/31/03 11:50 Received: 07/31/03 13:01									
Lead	31	0.22	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	
A49-LBP10-1 (P308035-15) Soil Sampled: 07/31/03 11:55 Received: 07/31/03 13:01									
Lead	32	0.23	mg/kg	1	3080062	08/05/03	08/12/03	EPA 6020	

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Total Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3080062 - EPA 3050B
Blank (3080062-BLK1)

Prepared: 08/05/03 Analyzed: 08/12/03

Lead ND 0.50 mg/kg

Laboratory Control Sample (3080062-BS1)

Prepared: 08/05/03 Analyzed: 08/12/03

Lead 52.1 0.50 mg/kg 50.0 104 80-120

Duplicate (3080062-DUP1)
Source: P308035-01

Prepared: 08/05/03 Analyzed: 08/12/03

Lead 12.1 1.1 mg/kg 12 0.8 10

Matrix Spike (3080062-MS1)
Source: P308035-01

Prepared: 08/05/03 Analyzed: 08/12/03

Lead 31.1 0.25 mg/kg 25.0 12 76 80-120 QM-07

Matrix Spike Dup (3080062-MSD1)
Source: P308035-01

Prepared: 08/05/03 Analyzed: 08/12/03

Lead 30.2 0.24 mg/kg 24.3 12 75 80-120 3 20 QM-07

Post Spike (3080062-PS1)
Source: P308035-01

Prepared: 08/05/03 Analyzed: 08/12/03

Lead 32.7 0.22 mg/kg 21.9 12 95 80-120

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Notes and Definitions

QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Test Report - Sequoia Analytical - Petaluma

Polarized Light Microscopy Analysis Results

Project AOCC308053

-----Asbestos-----

-----Nonasbestos-----

Sample Number / Client Sample Number Chrysotile Amosite Crocidolite Anthrophyllite Tremolite Actinolite Cellulose Wool Glass Fibers Fibers Material Analyst

0045837CPL P308035-16 A NFM: Misc. Part 100% 8/11/03 NP

Brown soil Homogeneous

0045838CPL P308035-16 B NFM: Misc. Part 100% 8/11/03 NP

Brown soil Homogeneous

Samples received on: Monday, July 14, 2003

RJ Lee Group, Inc.
Ray Area Lab

530 McCormick Street
San Leandro, CA 94577

Page: 1 of 1

Authorized Signature _____

Date _____



Donette Padon, Geologist

Monday, August 11, 2003

Phone (510) 567-0480
Fax (510) 567-0488

Released By	Date	Time	Received By	Date	Time
<i>[Signature]</i>	8/4/03		<i>[Signature]</i>	8/4/03	

Analysis	SLD Date	Expires	Laboratory ID	Comments
Metal Core (A)				
Metal Core (B)				
Asbestos-Soil SUB	08/15/03 15:00	01/27/04 12:45		SUB TO R.I. FEE
Sample ID: P308035-16 (Soil sampled on 07/31/03 12:45)				

Please use standard TAT unless specific due date is requested -> Due date: _____ Initials: _____

SENDING LABORATORY:
 Sequoia Analytical - Petaluma
 1455 N. McDowell Blvd, Suite D
 Petaluma, CA 94954
 Phone: (707) 792-1865
 Fax: (707) 792-0342
 Project Manager: Mark Shipman
 Sending lab received date: 08/01/03 16:00

RECEIVING LABORATORY:
 R.J. Lee Group
 530 Mc Cormick St.
 San Leandro, CA 94577
 Phone: (510) 567-0480
 Fax: (510) 567-0488

Drinking Water
 Waste Water
 Other

Sequoia Analytical - Petaluma
 P308035

A0C308053

Chain of Custody Record

No 1108

E.T.R. NO: WORK ORDER NO: **Aerriet 4921.03**

SOURCE SITE NO: AUGER HOLE NO:

SAMPLERS (SIGNATURE): *Kristina Williams*

COC SAMPLE ID	FIELD SAMPLE NO.	DEPTH (FT.)	DATE MM/DD/YY	TIME	TYPE OF CONTAINER	# OF SAMPLE CONTAINERS	SOIL TYPE (USCS CODE)	REQUESTED SAMPLE ANALYSES				LABORATORY QA/QC	REMARKS	
1108 A	A49-LBP01-0	0	07/31/03	0940	Plastic bag	1								P308035-01
1108 B	A49-LBP01-0.5	0.5	07/31/03	0950		1								02
1108 C	A49-LBP01-1	1	07/31/03	0955		1								03
1108 D	A49-LBP02-0	0	07/31/03	1004		1								04
1108 E	A49-LBP02-0.5	0.5	07/31/03	1015		1								05
1108 F	A49-LBP02-1	1	07/31/03	1024		1								06
1108 G	A49-LBP03-0	0	07/31/03	1055		1								07
1108 H	A49-LBP03-0.5	0.5	07/31/03	1104		1								08
1108 I	A49-LBP03-1	1	07/31/03	1109		1								09
1108 J	A49-LBP09-0	0	07/31/03	1120		1								10
1108 K	A49-LBP09-0.5	0.5	07/31/03	1125		1								11
1108 L	A49-LBP09-1	1	07/31/03	1130		1								12
1108 M	A49-LBP10-0	0	07/31/03	1145		1								COOLER CUSTODY SEALS INTACT
1108 N	A49-LBP10-0.5	0.5	07/31/03	1150		1								NOT INTACT
1108 O	A49-LBP10-1	1	07/31/03	1155		1								45.3.4 °C
1108 P	A49-ASB01-0	0	07/31/03	1245	2x 311 bags	2								COOLER TEMPERATURE 16
1108 Q														

TOTALS

RELINQUISHED BY: (SIGNATURE) *Kristina Williams* DATE/TIME 7/31/03 1252 RECEIVED BY: (SIGNATURE) *Denise Vincete*

RELINQUISHED BY: (SIGNATURE) *Denise Vincete* DATE/TIME 07/31/03 1301 RECEIVED BY: (SIGNATURE) *John Green*

RELINQUISHED BY: (SIGNATURE) *John Green* DATE/TIME 7/31/03 1410 RECEIVED BY: (SIGNATURE) *Bonnie Grogan*

COMMENTS: *Bonnie Grogan* 8/1/03 1300 *7-1-1300*

LABORATORY DELIVERED TO: 7/31/03 1410

TOTAL NO. OF SAMPLE CONTAINERS: 17

METHOD OF SHIPMENT: cooler

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: ERNA Hergejt
 REC. BY (PRINT) ACJ
 WORKORDER: P308035

DATE Received at Lab: 8-1-03
 TIME Received at Lab: 1000
 LOG IN DATE: 8-4-07

(Drinking water) for regulatory purposes: YES/NO
 (Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	#	CLIENT ID	DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s) Present / Absent Intact / Broken*			A49-LBPO1-0 05	PB	S	7-31	
2. Chain-of-Custody Present / Absent*			↓				
3. Traffic Reports or Packing List: Present / Absent			A49-LBPO2-0 05				
4. Airbill: Airbill / Sticker Present / Absent			↓ LBPO3-0 0.5				
5. Airbill #: Present / Absent			↓ 1				
6. Sample Labels: Listed / Not Listed on Chain-of-Custody			↓ LBPO9-0 05				
7. Sample IDs: Intact / Broken* / Leaking*			↓ LBPO10-0 05				
8. Sample Condition: Does information on custody reports, traffic reports and sample labels agree?			↓ ASBO1-0 1	2x MC			
9. Sample received within hold time: Yes / No*							
10. Proper Preservatives used: Yes / No*							
11. Temp Rec. at Lab: (Acceptance range for samples requiring thermal pres.: +/-2°C)							

*If Circled, contact Project Manager and attach record of resolution.