

ASARCO

December 11, 1995

Technical Services Center
R.A. Peterson
Director
D.E. Holt
Engineering Manager
J.B. Richardson
Environmental Sciences Manager
M.G. King
Research Manager

PLAINTIFF'S EXHIBIT

ASA-857

Ms. Peggy Munsell
EL PASO PLANT

Please find attached the analytical results for the bulk asbestos samples received 10/27/95 under Project No. ASB 1195.

The bulk asbestos has been analyzed by visual estimation based on EPA-600/M4-82-020 (Dec. 1982) optical microscopy test method.

I can be reached at Ext. 240 if you have any questions or comments.



T.J. Jacobi
Chemist

cc: SGCothrin (w/attach.)
GRStanga "



EXHIBIT

Plaintiff's
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AMERICAN ENVIRONMENTAL CONSULTANTS
ANALYTICAL DATA REPORT

E1 Paso

Industrial Hygiene (OSHA) (Project 3211)

Batch No: L952655

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L952655-1	21-NOV-95	HR-01 Mens Rest Room	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	ND	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020
L952655-2	21-NOV-95	HR-02 Womens Rest Room	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	ND	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020
L952655-3	21-NOV-95	ELC-01 Floor Tile	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	20	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020
L952655-4	21-NOV-95	ZN-01 Ground Waste	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	20	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020
L952655-5	21-NOV-95	ZN-02 Zinc Hopper	AMOSTE	<1	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	15	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020
L952655-6	21-NOV-95	ZN-03 Blower Gasket	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	60	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020
L952655-7	21-NOV-95	ZN-04 Blower Wiring	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRTS	ND	%	WCD	11-DEC-95		600/M4-82-020

ASARCO TECHNICAL SERVICES CENTER
ANALYTICAL DATA REPORT

El Paso

Industrial Hygiene (OSHA) (Project 3211)

Batch No: 1952655

LAB NO.	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L952655-7	21-NOV-95	ZN-04 Blower Wiring	CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/H4-82-020
L952655-8	21-NOV-95	ZN-05 Flue Cloth	AMOSTE	ND	%	WCD	11-DEC-95		600/H4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/H4-82-020
			CHRS	ND	%	WCD	11-DEC-95		600/H4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/H4-82-020
L952655-9	21-NOV-95	ZN-06 Flue Rope	AMOSTE	ND	%	WCD	11-DEC-95		600/H4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/H4-82-020
			CHRS	ND	%	WCD	11-DEC-95		600/H4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/H4-82-020
L952655-10	21-NOV-95	ZN-07 Flue Cloth	AMOSTE	ND	%	WCD	11-DEC-95		600/H4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/H4-82-020
			CHRS	85	%	WCD	11-DEC-95		600/H4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/H4-82-020
L952655-11	21-NOV-95	ZN-08 Pipe Wrap	AMOSTE	ND	%	WCD	11-DEC-95		600/H4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/H4-82-020
			CHRS	ND	%	WCD	11-DEC-95		600/H4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/H4-82-020
L952655-12	21-NOV-95	AM-01 Pipe Eyewash	AMOSTE	25	%	WCD	11-DEC-95		600/H4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/H4-82-020
			CHRS	1	%	WCD	11-DEC-95		600/H4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/H4-82-020
L952655-13	21-NOV-95	Am-02 Fitting T	AMOSTE	ND	%	WCD	11-DEC-95		600/H4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/H4-82-020
			CHRS	ND	%	WCD	11-DEC-95		600/H4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/H4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		300/H4-82-020

ASARCO TECHNICAL SERVICES CENTER
ANALYTICAL DATA REPORT

EI Paso

Industrial Hygiene (OSHA) (Project 3211)

Batch No: L952655

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DATE METHOD
L952655-14	21-NOV-95	CD-01 Overhead Crane EL Cov	AMOSTE	ND	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	ND	%	WCD	11-DEC-95	600/44-82-020
			CROCID	ND	%	WCD	11-DEC-95	600/44-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95	600/44-82-020
L952655-15	21-NOV-95	CD-02 Flue Gasket	AMOSTE	ND	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	ND	%	WCD	11-DEC-95	600/44-82-020
			CROCID	ND	%	WCD	11-DEC-95	600/44-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95	600/44-82-020
L952655-16	21-NOV-95	RVB-02 Hanging Wall	AMOSTE	ND	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	ND	%	WCD	11-DEC-95	600/44-82-020
			CROCID	ND	%	WCD	11-DEC-95	600/44-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95	600/44-82-020
L952655-17	21-NOV-95	RVB-03 Boiler Mud(N)	AMOSTE	5	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	15	%	WCD	11-DEC-95	600/44-82-020
			CROCID	ND	%	WCD	11-DEC-95	600/44-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95	600/44-82-020
L952655-18	21-NOV-95	RVB-04 Pipe Flange (N)	AMOSTE	ND	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	10	%	WCD	11-DEC-95	600/44-82-020
			CROCID	ND	%	WCD	11-DEC-95	600/44-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95	600/44-82-020
L952655-19	21-NOV-95	RVB-05 Pipe (West)	AMOSTE	ND	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	ND	%	WCD	11-DEC-95	600/44-82-020
			CROCID	ND	%	WCD	11-DEC-95	600/44-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95	600/44-82-020
L952655-20	21-NOV-95	RVB-06 Boiler West	AMOSTE	ND	%	WCD	11-DEC-95	600/44-82-020
			ANTHOP	ND	%	WCD	11-DEC-95	600/44-82-020
			CHRSYS	ND	%	WCD	11-DEC-95	600/44-82-020

ASARCO TECHNICAL SERVICES CENTER
ANALYTICAL DATA REPORT

E1 Paso

Industrial Hygiene (OSHA) (Project 3211)

Batch No: L952655

LAB NO.	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DAYS	METHOD
L952655-20	21-NOV-95	RVB-06 Boiler West	CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	
L952655-21	21-NOV-95	RVB-07 Boiler Elbow (West)	AMOSTE	ND	%	WCD	11-DEC-95	600/M4-82-020	
			ANTHOP	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CHRS	5	%	WCD	11-DEC-95	600/M4-82-020	
			CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	
L952655-22	21-NOV-95	RVB-08 Pipe (West)	AMOSTE	ND	%	WCD	11-DEC-95	600/M4-82-020	
			ANTHOP	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CHRS	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	
L952655-23	21-NOV-95	RVB-09 45 Elbow/Valve (S)	AMOSTE	10	%	WCD	11-DEC-95	600/M4-82-020	
			ANTHOP	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CHRS	15	%	WCD	11-DEC-95	600/M4-82-020	
			CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	
L952655-24	21-NOV-95	RVB-10 30" Flue	AMOSTE	ND	%	WCD	11-DEC-95	600/M4-82-020	
			ANTHOP	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CHRS	2	%	WCD	11-DEC-95	600/M4-82-020	
			CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	
L952655-25	21-NOV-95	RVB-11 8" Pipe (South)	AMOSTE	25	%	WCD	11-DEC-95	600/M4-82-020	
			ANTHOP	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CHRS	3	%	WCD	11-DEC-95	600/M4-82-020	
			CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	
L952655-26	21-NOV-95	RVB-12 Boiler (South)	AMOSTE	10	%	WCD	11-DEC-95	600/M4-82-020	
			ANTHOP	ND	%	WCD	11-DEC-95	600/M4-82-020	
			CHRS	10	%	WCD	11-DEC-95	600/M4-82-020	
			CROCID	ND	%	WCD	11-DEC-95	600/M4-82-020	
			TREN/ACT	ND	%	WCD	11-DEC-95	600/M4-82-020	

ASARCO TECHNICAL SERVICES CENTER
ANALYTICAL DATA REPORT

E1 Paso

Industrial Hygiene (OSHA) (Project 3211)

Batch No: L952655

LAB NO	DATE COLLECTED	DESCRIPTION	PARAMETER	VALUE	UNITS	ANALYST	DATE ANALYZED	HOLD DATE	RETMO
L952655-27	21-NOV-95	RVB-13 Preheated Boiler	AMOSTE	ND	%	WCD	11-DEC-95		600/M4-82-020
			ANTHOP	ND	%	WCD	11-DEC-95		600/M4-82-020
			CHRY5	ND	%	WCD	11-DEC-95		600/M4-82-020
			CROCID	ND	%	WCD	11-DEC-95		600/M4-82-020
			TREM/ACT	ND	%	WCD	11-DEC-95		600/M4-82-020

Linus B. B. 11/21/95
Approved

MAA
Reviewer

DIXON INFORMATION INC.

MICROSCOPY, ASBESTOS ANALYSIS & CONSULTING

A.I.H.A. ACCREDITED LABORATORY #10847

NVLAP CODE 101012

December 11, 1995

Mr. Tim Jacobi
ASARCO Technical Services Center
3422 South 700 West
Salt Lake City, Utah 84119

Ref: Batch #33168, Lab #A21055-A21081
Received November 29, 1995
RC94-1661

Dear Mr. Jacobi:

Samples A21055 through A21081 have been analyzed by visual estimation based on EPA-600/M4-82-020 December 1982 optical microscopy test method including phase contrast, polarized light, dispersion staining, and stereo microscopy. Accuracy increases with increasing asbestos concentration.

If these samples are related to a demolition or are subject to NESHAPS 40CFR part 61 regulations, these regulations mandate that any sample containing less than 1% asbestos must be analyzed by point count. If asbestos is reported to be between 1% and 10%, see EPA "Clarification of asbestos NESHAP requirements to perform point counting" (copy available).

This report relates only to the items tested. This report must not be used to claim product endorsement by the NVLAP, the National Institute of Standards and Technology, or any agency of the U.S. Government. The results of analysis are as follows:

Lab A21055, Field L952655-1

This is sandy grey concrete with less than 1% plant fiber and hair with a layer of expanded metal and tan paint. Asbestos is none detected.

The paint is less than 1% of the sample. The expanded metal is 5% of the sample.

Lab A21056, Field L952655-2

This is sandy tan plaster with less than 1% organic fiber. Asbestos is none detected.

Lab A21057, Field L952655-3

This is 20% chrysotile asbestos in grey cement with a brown surface.

Lab A21058, Field L952655-4

This is 20% chrysotile asbestos and 25% rockwool in grey plaster. This sample is non-homogeneous.

78 WEST 2400 SOUTH SOUTH SALT LAKE, UTAH 84115-3013

PHONE 801-486-0800 • FAX 801-486-0849 • RES. 801-583-1840

Batch #33168
Lab #A21055-A21081
Page 2

Lab A21059, Field L952655-5

This is 15% chrysotile asbestos, less than 1% amosite asbestos and 5% rockwool in grey plaster.

Lab A21060, Field L952655-6

This is 60% chrysotile asbestos in grey fabric with binder and particulate.

Lab A21061, Field L952655-7

This is 70% plant fiber in black tar. Asbestos is none detected.

Lab A21062, Field L952655-8

This is 95% fiberglass in fabric with grey particulate. Asbestos is none detected.

Lab A21063, Field L952655-9

This is 90% fiberglass in rope with grey particulate. Asbestos is none detected.

Lab A21064, Field L952655-10

This is 85% chrysotile asbestos in grey fabric with binder and particulate.

Lab A21065, Field L952655-11

This is 90% plant fiber in grey binder. Asbestos is none detected.

Lab A21066, Field L952655-12

This is 25% amosite asbestos and 1% chrysotile asbestos in white plaster. This sample is non-homogeneous.

Lab A21067, Field L952655-13

This is 35% rockwool in grey plaster. Asbestos is none detected.

Lab A21068, Field L952655-14

This is 85% plant fiber in twine with grey particulate and binder. Asbestos is none detected.

Lab A21069, Field L952655-15

This is 30% rockwool in grey plaster. Asbestos is none detected.

Lab A21070, Field L952655-16

This is grey plaster with perlite and sand. Asbestos is none detected.

Lab A21071, Field L952655-17

This is 15% chrysotile asbestos and 5% amosite asbestos in grey plaster. This sample is non-homogeneous.

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Lab #A21055-A21081
Page 3

Lab A21072, Field L952655-18

This is 10% chrysotile asbestos and 50% rockwool in grey plaster. This sample is non-homogeneous.

Lab A21073, Field L952655-19

This is 3% synthetic fiber and 2% fiberglass in white plaster. Asbestos is none detected.

Lab A21074, Field L952655-20

This is hard sandy plaster. Asbestos is none detected.

Lab A21075, Field L952655-21

This is 5% chrysotile asbestos and 25% rockwool in grey plaster with debris. This sample is non-homogeneous.

Lab A21076, Field L952655-22

This is 3% synthetic fiber and 2% fiberglass in brown and white plaster. Asbestos is none detected.

Lab A21077, Field L952655-23

This is 15% chrysotile asbestos, 10% amosite asbestos, and 3% rockwool in grey plaster. This sample is non-homogeneous.

Lab A21078, Field L952655-24

This is 2% chrysotile asbestos and 20% rockwool in grey plaster. This sample is non-homogeneous.

Lab A21079, Field L952655-25

This is 25% amosite asbestos and 3% chrysotile asbestos in white plaster.

Lab A21080, Field L952655-26

This is 10% amosite asbestos, 10% chrysotile asbestos, and 25% rockwool in grey plaster.

Lab A21081, Field L952655-27

This is 15% rockwool, 10% plant fiber, and 2% wollastonite in grey plaster. Asbestos is none detected.

Very truly yours,

Willard C. Dixon
Willard C. Dixon

Analyst: Russ Osguthorpe

Russ Osguthorpe

Analyst: Steven H. Dixon

Steven H. Dixon

Date: December 11, 1995