



EMS Laboratories  
117 W. Bellevue Drive  
Pasadena, CA 91105

## NARRATIVE

October 1, 2010

Derrick Willis  
Tronox LLC-Henderson  
560 West Lake Mead  
Henderson, NV 89015

SDG/EMS# 140525  
Project: 2027.01, Tronox LLC Henderson,  
560 West Lake Mead Drive, Henderson, NV  
Client COC ID: 02027.01.2157

REFERENCE:	DAS Case No. 0769F	TDD No.: 07-10-0012
	Task No. 0361	P. O. No.: 0063941
	Tronox Project# 2027.01	NGE Tracking# 03
	AUI Task# 6	

EMS REPORT NO.: 140525

When the samples are analyzed in the TEM the recorded data includes the dimensions of the respirable fibers of the regulated asbestos types, namely, chrysotile, Amosite (cummingtonite/grunerite), tremolite, actinolite, crocidolite, and anthophyllite. The fibers of importance are those included in the protocol fiber classification. The width of the protocol fibers is  $<0.4$   $\mu\text{m}$  and the length is divided into two groups, 5 to 10  $\mu\text{m}$  and long fibers  $>10$   $\mu\text{m}$ . The 95% Poisson Confidence interval for the observed concentration of fibers is also calculated. Other asbestos fibers and non-asbestos fibers with protocol dimensions are noted in the counting sheet. The problem regarding the loss of particles on polycarbonate filters has been eliminated except for very alkaline particles. There is no evidence that asbestos fibers are lost.



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Attn: Derrick Wills  
 Tronox-LLC-Henderson  
 PO Box 55  
 Henderson, NV 89009

Phone: (947) 375-7004

Project: Tronox LLX Henderson, 560 W. Lake Mead Dr.,  
 Henderson, NV/2027.001

Customer ID: TRNX26  
 Customer PO: 2027.001  
 Received: 9/27/2010 9:30AM  
 EMS LAB No: 140525  
 Date Prepared: 9/29-10/2 2:15PM  
 Analysis Date: 9/30/2010 10AM

Report Date: October 1, 2010

Date Sampled: 9/24/2010 4:40pm

**NIOSH 7402/ISO**

**DRAFT, MODIFIED ELUTRIATOR METHOD FOR THE DETERMINATION OF ASBESTOS IN SOILS AND BULK MATERIAL METHOD**

EMS Laboratory Number: 140525	Mass of Respirable Dust on Filter: 165	µg
Customer Sample Number: SSAQ3-04-0.00_1_BPC	Area of collection filter: 385	mm <sup>2</sup>
Minimum Level of Analysis (chrysotile): CD	Grid openings area: 0.0094	mm <sup>2</sup>
Minimum Level of Analysis (amphibole): ADX	Grid Openings Analyzed: 93	
Magnification used for fiber counting: 9,200 x	Min. Str. Length/Max Str. Diameter: >5/<0.4	microns
Aspect ratio for fiber definition: 3:1		

Analyst(s): Radha Singh

Dust Generator - Total Dried Sample Weight-74.1g	Soil % Moisture	7.4	%
Not Used	Air Flow Rate Through ME Opening of Dust Generator:	1370	
Used in Tumbler	Air Flow Rate Through IST Opening of Dust Generator:	100	
	Estimate Total Air Flow Through Elutriator:	1470	

Analytical Sensitivity: 2.67E+06 Structure /g PM 10      Limit of Detection: 7.99E+06 Structure /g PM 10

Test For Uniformity (Chi-Square results)

Structure Class	Min ID Level Required	Counts		Poisson 95% Confidence Interval			
		Primary Str.	Total Str.	Density St/mm <sup>2</sup>	Conc. Str/g PM10	Lower Limit Str/g PM10	Upper Limit Str/g PM10
<b>Asbestos Structures &gt;5um, ≤10um</b>	ADX/CD	0	0	0	0	0	7.99E+06
Asbestos Structures >5um, ≤10um (Chrys)	CD	0	0	0	0	0	7.99E+06
Asbestos Structures >5um, ≤10um (Amph)	ADX	0	0	0	0	0	7.99E+06
<b>Asbestos Structure &gt;10um (Long)</b>	ADX/CD	2	2	2.29	5.34E+06	6.46E+05	1.93E+07
Asbestos Structure >10um (Chrys)	CD	2	2	2.29	5.34E+06	6.46E+05	1.93E+07
Asbestos Structure >10um (Amph)	ADX	0	0	0	0	0	7.99E+06
<b>Total Protocol Asbestos Structures</b>	ADX/CD	2	2	2.29	5.34E+06	6.46E+05	1.93E+07
Protocol Asbestos Structures (Chrys)	CD	2	2	2.29	5.34E+06	6.46E+05	1.93E+07
Protocol Asbestos Structures (Amph)	ADX	0	0	0	0	0	7.99E+06
<b>Total Protocol Non Asbestos Structures</b>	NAM	0	0	0	0	0	7.99E+06

  
 Approved by Technical Director





#140411

2 soils for moisture content

53

9-24-10

#140411

#SA113-0.0 BPC

#SSAMS-03-1.00 BPC

dish wt. 31.46 g  
 dish + s. 131.53 (init. wt. 100.07 g)  
 7:55 - 8:55 125.41 (93.95 g)  
 10:55 - 11:55 125.11 (93.65 g)  
 1 - 2:00 125.09 (93.63 Final wt.)

31.44  
 132.03 (100.59 g)  
 124.50 (93.06 g)  
 124.42 (92.98 g)  
 124.40 (92.96 g)

$$\% \text{ moist. } 100 \times \frac{100.07 - 93.63}{93.63} = 6.8\%$$

$$100 \times \frac{100.59 - 92.96}{92.96} = 8.2\%$$

BT

9-27-10

#140525

#SSAQ3-05-0.00 01 BPC

#SSAQ3-04-0.0001 BPC

dish wt. 31.40  
 d + s 131.77 (initial wt. 100.31 g)  
 7:50 - 8:50 124.55 (93.09 g)  
 10:00 - 11:00 124.46 (93.00 g)  
 12:00 - 1:00 124.43 (92.97 g) Final wt.

31.46  
 131.51 (100.05 g)  
 124.88 (93.42 g)  
 124.63 (93.17 g)  
 124.62 (93.16 Final wt.)

$$\% \text{ moist. } 100 \times \frac{100.31 - 92.97}{92.97} = 7.9\%$$

$$100 \times \frac{100.05 - 93.16}{93.16} = 7.4\%$$

BT

Elutriator Data

Lab #: 140525

Sample ID: SSAQ3-04-0001 PPC Sample weight (g): 74.1

Time air flow started: 1100

Tumbler rpm: 30

IST Flowmeter (mL/min): 100

ME Flowmeter (mL/min): 1970

Date: 9/29/10-2 Client: Northgate

Filter No.	Start Time	Tested flow rate (mL/min)	Final Filter Wt (mg)	Initial Filter Wt (mg)	Dust Weight (mg)	Time Value (min)	Avg. rate of deposition (ug/min)	Optimal time (min)
1	1300	185	0.03136	0.02512	0.24	30		
2	1330		0.03171	0.02518	0.53	30		
3	1400		0.02851	0.02490	3.61	15		
4	1415		0.02935	0.02510	4.25	25		
5	1440			<del>0.02460</del>				
6								
7								
8								
ESTIMATE								
\$Time	End Time						Dep. Rate	Estimate
1337	1356		5.017	4.611	0.208	19		
1405	1415		4.832	4.667	0.165	10		
1422	1433		4.843	4.666	0.177	18.2		
9								
10								

ok  
20% loss  
50% loss  
60% loss

\* RAISE RPM TO 60

815  
Copy

Prep Time: 6:30-9:00

Count (Page of ) NIOSH 7402/ISO

Report number: 140525  
 Sample number: SSA03-04-0.0001 BPC  
 File name: Northgate  
 Sample Description: 165 mg

Filter Type: PC 385 mm<sup>2</sup>  
 Date Sample was Run: 9/29/10-2

Preparation date: 9/30/10 By JAP  
 Analysis date: 9/30/10 By PS  
 (A): ADX, ADQ  
 Grid loading Moderate Condition of Grid good

Magnification: 9,200 X  
 Grid opening dimension: 0.0094 mm<sup>2</sup>  
 Level of Analysis: (C): CD, CDX

Grid	Grid Opening	Number of structures Primary	Number of structures Total	Class	Type of Structure	Width mm	Length mm	Comments
1A	E2-3							
	E2-6							
	F2-3							
	F2-6							
	G3-1							
	G3-4				E	12.5	80	Non asb
	H3-1							
	H3-4							
	I4-1							
	I4-4							
	J4-1							
	J4-4							
	K4-6							
	L4-3							
	L4-6							
M4-3								
M4-6								
N4-1								
N4-4								
B	C2-3							
	C2-6							
	E3-1							
	E3-4							
	F3-1							
	F3-4							
	G3-3							
	G3-6							
	H3-3							
	H3-6							
I4-1								

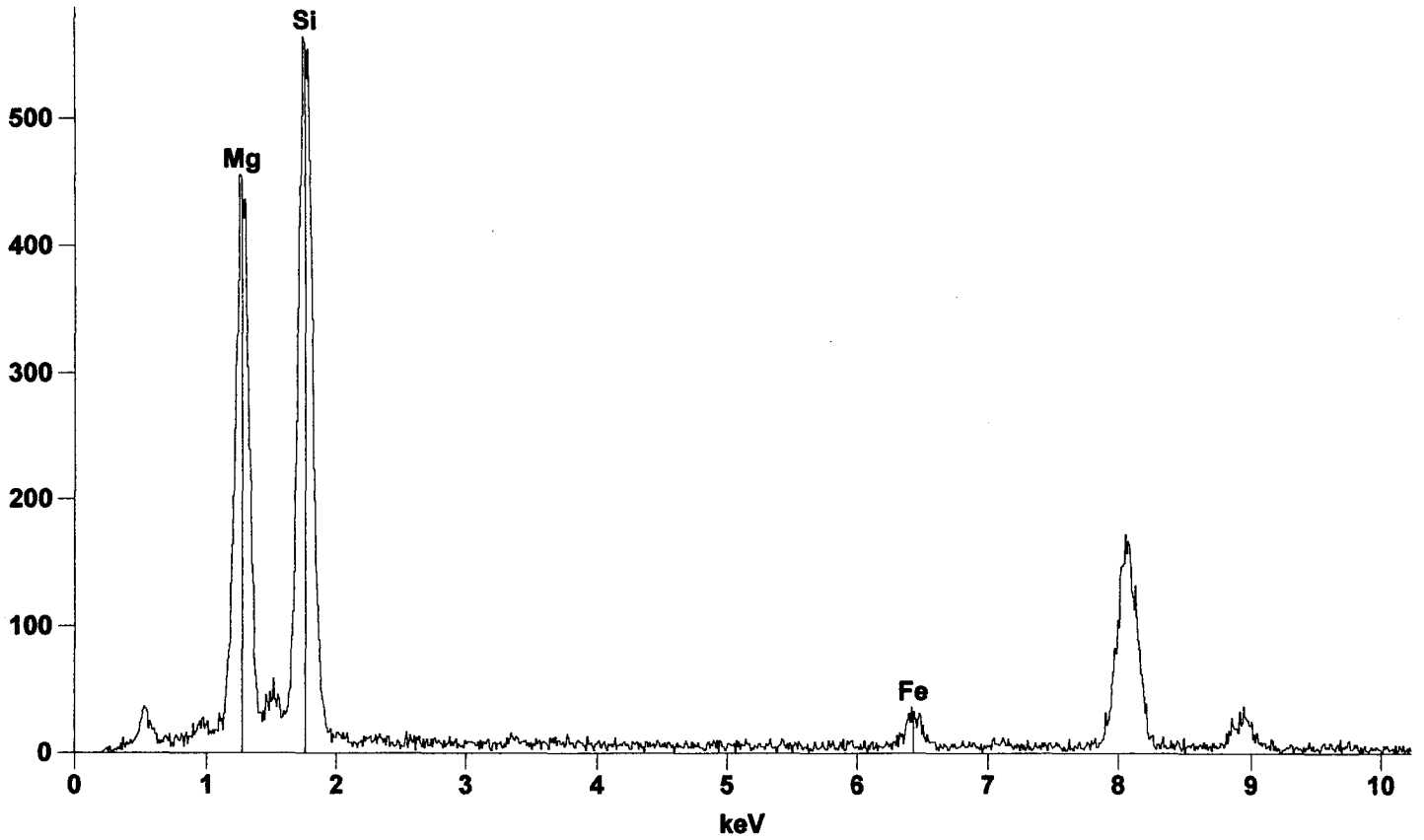
TEM Asbestos Structure Count (Page of )

Report number: 140525 SAMPLE NO: SSAQ3-04-0-00 01 BPC X 9,200

Grid	Grid Opening	Number of structures primary	Number of structures Total	Class	Type of Structure	Width Mm	Length Mm	Comments
B Cont'd	E4-4							
	F4-1							
	F4-4							
	G4-1							
	H4-3							
	H4-6							
	I5-1							
	C5-4							
1C	C3-1							
	C3-4							
	E2-1							
	E2-4							
	K2-1							
	K2-4							
	E2-3							
	F2-6				INDII MB	65 2.5	360 310	Chrys. EPC
	G3-3							
	G3-6							
	H3-3							
	H3-6							
	C4-1							
	C4-4							
	E5-1							
	E5-4							
	C5-6							
1D	C2-3							
	C2-6							
	E2-3				I=	12	68	Nonash
	K2-6							







Live Time:18.4 sec.

Quantitative Results 140525-SSAQ3-04-00 01-BPC-F2-6

Element Line	Net Counts	Weight %	Atom %	Formula	Compnd %
Mg K	5631	51.30	55.63	Mg	51.30
Si K	7100	45.82	43.01	Si	45.82
Fe K	409	2.88	1.36	Fe	2.88
Total		100.00	100.00		100.00



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**Attn:** Derrick Wills  
 Tronox-LLC-Henderson  
 PO Box 55  
 Henderson, NV 89009

**Phone:** (947) 375-7004

**Project:** Tronox LLX Henderson, 560 W. Lake Mead Dr.,  
 Henderson, NV/2027.001

**Customer ID:** TRNX26  
**Customer PO:** 2027.001  
**Received:** 9/27/2010 9:30AM  
**EMS LAB No:** 140525  
**Date Prepared:** 9/29/2010 9:18AM  
**Analysis Date:** 9/29/2010 10AM

**Report Date:** October 1, 2010

**Date Sampled:** 9/24/2010 4:17PM

**NIOSH 7402/ISO**

**DRAFT, MODIFIED ELUTRIATOR METHOD FOR THE DETERMINATION OF ASBESTOS IN SOILS AND BULK MATERIAL METHOD**

EMS Laboratory Number:	140525	Mass of Respirable Dust on Filter:	180	µg
Customer Sample Number:	SSAQ3-05-0.00_1_BPC	Area of collection filter:	385	mm <sup>2</sup>
Minimum Level of Analysis (chrysotile):	CD	Grid openings area:	0.0094	mm <sup>2</sup>
Minimum Level of Analysis (amphibole):	ADX	Grid Openings Analyzed:	87	
Magnification used for fiber counting:	9,200 x	Min. Str. Length/Max Str. Diameter:	>5/<0.4	microns
Aspect ratio for fiber definition:	3:1			

**Analyst(s):** Radha Singh

Dust Generator - Total Dried Sample Weight-73.9g	Soil % Moisture	7.9	%
Not Used	Air Flow Rate Through ME Opening of Dust Generator:	1370	
Used in Tumbler	Air Flow Rate Through IST Opening of Dust Generator:	100	
	Estimate Total Air Flow Through Elutriator:	1470	

**Analytical Sensitivity:** 2.62E+06 Structure /g PM 10      **Limit of Detection:** 7.83E+06 Structure /g PM 10

**Test For Uniformity (Chi-Square results)**

Structure Class	Min ID Level Required	Counts		Density St/mm <sup>2</sup>	Conc. Str/g PM10	Poisson 95% Confidence Interval	
		Primary Str.	Total Str.			Lower Limit Str/g PM10	Upper Limit Str/g PM10
<b>Asbestos Structures &gt;5um, ≤10um</b>	ADX/CD	0	0	0	0	0	7.83E+06
Asbestos Structures >5um, ≤10um (Chrys)	CD	0	0	0	0	0	7.83E+06
Asbestos Structures >5um, ≤10um (Amph)	ADX	0	0	0	0	0	7.83E+06
<b>Asbestos Structure &gt;10um (Long)</b>	ADX/CD	0	0	0	0	0	7.83E+06
Asbestos Structure >10um (Chrys)	CD	0	0	0	0	0	7.83E+06
Asbestos Structure >10um (Amph)	ADX	0	0	0	0	0	7.83E+06
<b>Total Protocol Asbestos Structures</b>	ADX/CD	0	0	0	0	0	7.83E+06
Protocol Asbestos Structures (Chrys)	CD	0	0	0	0	0	7.83E+06
Protocol Asbestos Structures (Amph)	ADX	0	0	0	0	0	7.83E+06
<b>Total Protocol Non Asbestos Structures</b>	NAM	0	0	0	0	0	7.83E+06

  
 Approved by Technical Director







Elutriator Data

Lab #: 140525

Sample ID: SSA03-05-0.00 01BPC Sample weight (g): 73.9

Time air flow started: 620

IST Flowmeter (mL/min): 100

Date: 9/29/10

Client: Northgate

Tumbler rpm: 30

ME Flowmeter (mL/min): 1970

Filter No.	Start Time	Tested flow rate (mL/min)	Final Filter Wt (mg)	Initial Filter Wt (mg)	Dust Weight (mg)	Time Value (min)	Avg. rate of deposition (ug/min)	Optimal time (min)
1	820	190	0.03707	0.02509	11.98	30		
2	850		0.03494	0.02492	10.02	15		
3	905		0.03389	0.02486	9.03	15		
4	920		0.03490	0.02513	9.77	20		
5	940		0.03444	0.02515	9.29	20		
6	1000							
7								
8								
S. Time    End Time    Dep. Rate    Estimate								
1	910		4.856	4.686	0.180	8		
2	930		4.819	4.675	0.144	8		
3	940		4.796	4.673	0.123	<del>10</del>		
4								
5								
6								
7								
8								
9								
10								

loss 15%  
loss 5%  
loss 8%  
loss 10%

\* RAISE RPM TO 60

# 140411

2 soils for moisture content

53

9-24-10

# 140411

# SA113-0.0 BPC

# SSAN5-03-1.00 BPC

dish wt.

31.46 g

31.44

dish + s.

131.53 (init. wt. 100.07 g)

132.03 (100.59 g)

7:55 - 8:55

125.41 (93.95 g)

124.50 (93.06 g)

10:55 - 11:55

125.11 (93.65 g)

124.42 (92.98 g)

1 - 2:00

125.09 (93.63 final wt.)

124.40 (92.96 g)

% moist.  $100 \times \frac{100.07 - 93.63}{93.63} = 6.8\%$

$100 \times \frac{100.59 - 92.96}{92.96} = 8.2\%$

BT

9-27-10

# 140525

# SSAQ3-05-0.00 01 BPC

# SSAQ3-04-0.00 01 BPC

dish wt.

31.46

31.46

d + s

131.77 (initial wt. 100.31 g)

131.51 (100.05 g)

7:50 - 8:50

124.55 (93.09 g)

124.88 (93.42 g)

10:00 - 11:00

124.46 (93.00 g)

124.63 (93.17 g)

12:00 - 1:00

124.43 (92.97 g) final wt.

124.62 (93.16 final wt.)

% moist.  $100 \times \frac{100.31 - 92.97}{92.97} = 7.9\%$

$100 \times \frac{100.05 - 93.16}{93.16} = 7.4\%$

BT





TEM Asbestos Structure Count (Page of )

Report number: 140525

SAMPLE NO: SSAQ3-05-0.0001 BPC X 9,200

Grid	Grid Opening	Number of structures primary	Number of structures Total	Class	Type of Structure	Width Mm	Length Mm	Comments
	CU-1							
	CU-4							
	EU-4							
	EU-4							
	EU-3							
	EU-6							
	EU-1							
	EU-4				I=	12	68	Non ash.
IC	E2-3							
	E2-6							
	E2-3							
	E2-6							
	E3-1							
	E3-4							
	E3-1							
	E3-6							
	U3-3							
	U3-6							
	U3-3							
	EU-1							
	EU-4							
	EU-1							
	EU-4							
	EU-3							
	EU-6							
	EU-1							
	EU-4							
1D	U2-3							
	U2-6							
	E2-3							
	E2-3							



# TEM ASBESTOS ANALYSIS

Client Sand blank  
 Sample No. 8/25/10

EMS Lab No. \_\_\_\_\_ of \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_

## RECEIVING

**TYPE OF SAMPLE**  
 Air  Water  Bulk  Soil  Other \_\_\_\_\_

**LENGTHS**  
 All Sizes (EPA)   
 ( $\mu\text{m}$ )  $\geq 0.5$    
 $\geq 1.0$    
 $\geq 5.0$    
 $\geq 10.0$

**FILTER TYPE / AREA ( $\text{mm}^2$ )**  
 MCE  385   
 PC  314   
 MCN  107   
 Other \_\_\_\_\_

**LEVEL OF ANALYSIS**  
 Chrysotile  CD-CDD  
 Amphibole  ADK-ADPX

**METHOD OF ANALYSIS**  
 EPA 600/4-83-043  ISO   
 EPA 600/R-94/134  100.1  100.2

**ASPECT RATIO**  
 3:1  5:1

**PORE SIZE**  
 0.45  $\mu\text{m}$   0.8  $\mu\text{m}$    
 01  $\mu\text{m}$   0.22  $\mu\text{m}$    
 Other \_\_\_\_\_

**GO Area ( $\text{mm}^2$ )** 0.0094  
 No. of GO. to Analyze 200

## PREP

**DIRECT PREP**   
**INDIRECT PREP**

Volume \_\_\_\_\_ liters  
 Working Volume \_\_\_\_\_ ml  
 Weight \_\_\_\_\_ grams  
 Ashed Area \_\_\_\_\_ %

Prepared By JHP  
 Date 8/26/10

## ANALYSIS

**MICROSCOPE** copy  
 H600A - Serial No. 542-36-01   
 H600B - Serial No. 542-05-06   
 H600C - Serial No. 542-24-03   
 ENERGY DISPERSIVE X-RAY SYSTEM

Keveo - Model No. 3200-0106-0365   
 Keveo - Model No. 3600-0206-0146   
 Quantum System

Grid Address: \_\_\_\_\_ X  
 Screen Magnification: 2K  
 Camera Constant: 2K  
 Accelerating Voltage: 100KV  
 Beam Current: 1.4  $\mu\text{A}$   
 K-Factor: \_\_\_\_\_  
 Analyst \_\_\_\_\_ Date 8/26/10

TEM - 1A (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis				Comments							
			Width	Length	NA	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADK	AD	ADQ	AZQ		AZZ	Na	Mg	Si	Ca	Fe	
<u>C26</u>		<u>N21</u>																								
<u>C23</u>																										
<u>K28</u>																										
<u>K23</u>																										
<u>K28</u>																										
<u>N23</u>																										
<u>H18</u>																										
<u>B31</u>																										
<u>B34</u>																										
<u>B34</u>																										
<u>B34</u>																										

### OBSERVATIONS:

**Condition of the Grid:**

Clean   
 Debris:   
 Gypsum:   
 Very Light   
 Light   
 Light   
 Scrapy   
 Undissolved Filter   
 Moderate   
 Moderate   
 Heavy   
 Heavy   
 Very Heavy   
 Very Heavy

# TEM ASBESTOS ANALYSIS

Client Sand blank EMS Lab No. 2 of 2  
 Sample No. 8/25/10 Page 2 of 2

**RECEIVING**

**ANALYSIS**

Grid Address: A100X  
 Screen Magnification: 25x  
 Camera Constant: 100KV  
 Accelerating Voltage: 10  $\mu$ A  
 Beam Current: 1.4  $\mu$ A  
 K-Factor: 1.4  
 Analyst: Pedle Date: 8/26

- MICROSCOPE
- H600A - Serial No. 542-36-01
  - H600B - Serial No. 542-05-06
  - H600C - Serial No. 542-24-03
- ENERGY DISPERSIVE X-RAY SYSTEM
- Kevec - Model No. 3200-0106-0365
  - Kevec - Model No. 3600-0206-0146 Quantum System

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments					
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe
E3-4		N79																							
U3-7																									
U3-4																									
U3-4																									
U3-1																									
U3-6																									
E3-2																									
E3-6																									
F3-3																									
U3-6																									
U3-3																									
U3-8																									
U3-8																									
U3-3																									

**OBSERVATIONS:**

- Clean   
 Debris:   
 Gypsum:   
 Very Light   
 Very Light   
 Good   
 Light   
 Light   
 Scrappy   
 Undissolved Filter   
 Moderate   
 Moderate   
 Undissolved Filter   
 Heavy   
 Heavy   
 Folded   
 Very Heavy   
 Very Heavy

# TEM ASBESTOS ANALYSIS

Client Sand blank  
 Sample No. 8/25-110

EMS Lab No. \_\_\_\_\_  
 Page 3 of \_\_\_\_\_

MICROSCOPE

H600A - Serial No. 542-36-01

H600B - Serial No. 542-05-06

H600C - Serial No. 542-24-03

ENERGY DISPERSIVE X-RAY SYSTEM

Keveo - Model No. 3200-0106-0365

Keveo - Model No. 3600-0206-0146

Quantum System

## RECEIVING

## ANALYSIS

Grid Address: 1  
 Screen Magnification: 2000X  
 Camera Constant: 28.2  
 Accelerating Voltage: 100KV  
 Beam Current: 10  $\mu$ A  
 K-Factor: 1.4  
 Analyst: Reder

Date 8/26/10

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification											EDS Analysis					Comments						
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ	Na		Mg	Si	Ca	Fe		
<u>B6</u>		<u>W59</u>																									
<u>K33</u>																											
<u>CA-1</u>																											
<u>CA-4</u>																											
<u>EA-1</u>																											
<u>EA-4</u>																											
<u>EA-1</u>																											
<u>EA-1</u>																											
<u>EA-1</u>																											
<u>EA-1</u>																											
<u>EA-1</u>																											
<u>EA-1</u>																											
<u>EA-1</u>																											

**OBSERVATIONS:**

Clean  
 Debris:  
 Gypsum:  
 Condition of the Grid:  
 Very Light  
 Very Light  
 Good  
 Light  
 Light  
 Scrappy  
 Moderate  
 Moderate  
 Undissolved Filter  
 Heavy  
 Heavy  
 Folded  
 Very Heavy  
 Very Heavy



# TEM ASBESTOS ANALYSIS

Client Sand blank EMS Lab No. 2 of 2  
 Sample No. 8/25/10 Page 2 of 2

## RECEIVING

## ANALYSIS

Grid Address: B  
 Screen Magnification: 9100X  
 Camera Constant: 28.2  
 Accelerating Voltage: 100KV  
 Beam Current: 70  $\mu$ A  
 K-Factor: 1.4  
 Analyst: Perk Date: 8/20

H600A - Serial No. 542-36-01  
 H600B - Serial No. 542-05-06  
 H600C - Serial No. 542-24-03  
 ENERGY DISPERSIVE X-RAY SYSTEM  
 KeveX - Model No. 3200-0106-0365  
 KeveX - Model No. 3600-0206-0146  
 Quantum System

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments					
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe
F43		N519																							
F46																									
WV-3																									
WV-2																									
H43																									
H46																									
B1																									
WV																									
WV-1																									
WV-1																									
WV-1																									
WV-1																									

**OBSERVATIONS:**

Clean  
 Debris:  
 Gypsum:  
 Condition of the Grid:  
 Very Light  
 Good  
 Light  
 Scrappy  
 Undissolved Filter  
 Moderate  
 Moderate  
 Heavy  
 Heavy  
 Folded  
 Very Heavy  
 Very Heavy



# TEM ASBESTOS ANALYSIS

Client Sand blank  
Sample No. 8/2610

EMS Lab No. \_\_\_\_\_  
Page 3 of \_\_\_\_\_

**RECEIVING**

**ANALYSIS**

Grid Address: B  
Screen Magnification: 900 X  
Camera Constant: 253  
Accelerating Voltage: 100 KV  
Beam Current: 10 μA  
K-Factor: 1.4  
Analyst: Pohl

- MICROSCOPE
- H600A - Serial No. 542-36-01
  - H600B - Serial No. 542-05-06
  - H600C - Serial No. 542-24-03
- ENERGY DISPERSIVE X-RAY SYSTEM
- Keve - Model No. 3200-0106-0365
  - Keve - Model No. 3600-0206-0146 Quantum System

Comments

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments					
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe
<u>C16</u>		<u>W3</u>																							
<u>E13</u>																									
<u>E16</u>																									
<u>E13</u>																									
<u>E16</u>																									
<u>E64</u>																									
<u>E64</u>																									
<u>E64</u>																									
<u>E64</u>																									
<u>E64</u>																									
<u>E64</u>																									
<u>E64</u>																									

**OBSERVATIONS:**

- Clean   
Debris:   
Gypsum:   
Condition of the Grid:

- Very Light   
Very Light   
Good

- Light   
Light   
Scrappy

- Moderate   
Moderate   
Undissolved Filter

- Heavy   
Heavy   
Folded

- Very Heavy   
Very Heavy

# TEM ASBESTOS ANALYSIS

Client Sand blank EMS Lab No. \_\_\_\_\_ of \_\_\_\_\_  
 Sample No. 8/26/10 Page \_\_\_\_\_

**RECEIVING**

**ANALYSIS**

Grid Address: C  
 Screen Magnification: 9,100 X  
 Camera Constant: 28.2  
 Accelerating Voltage: 70 100KV  
 Beam Current: \_\_\_\_\_  $\mu A$   
 K-Factor: 1.14  
 Analyst: Popko

- MICROSCOPE
- H600A - Serial No. 542-36-01
  - H600B - Serial No. 542-05-06
  - H600C - Serial No. 542-24-03
- ENERGY DISPENSIVE X-RAY SYSTEM
- Kevex - Model No. 3200-0106-0365
  - Kevex - Model No. 3600-0206-0146 Quantum System

Date 8/26/10

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments					
			Width	Length	NAN	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe
L23		N29																							
L26																									
E23																									
E28																									
L23																									
E28																									
L23																									
L20																									
H25																									
B34																									
C34																									
B34																									
L34																									
B4																									

**OBSERVATIONS:**

- Clean   
 Debris:   
 Gypsum:   
 Condition of the Grid:
- Very Light   
 Very Light   
 Good
- Light   
 Light   
 Scrappy
- Moderate   
 Moderate   
 Undissolved Filter
- Heavy   
 Heavy   
 Folded
- Very Heavy   
 Very Heavy

# TEM ASBESTOS ANALYSIS

Client Sand blank EMS Lab No. \_\_\_\_\_  
Sample No. 8125110 Page 2 of \_\_\_\_\_

## RECEIVING

## ANALYSIS

Grid Address: C 910X  
Screen Magnification: 28x  
Camera Constant: \_\_\_\_\_  
Accelerating Voltage: 10 100KV  
Beam Current: \_\_\_\_\_ uA  
K-Factor: 114  
Analyst: P. P. P. Date: 8/25/88

**MICROSCOPE**  
H600A - Serial No. 542-36-01   
H600B - Serial No. 542-05-06   
H600C - Serial No. 542-24-03   
**ENERGY DISPERSIVE X-RAY SYSTEM**  
Kevex - Model No. 3200-0106-0365   
Kevex - Model No. 3600-0206-0146   
Quantum System

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments			
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si
<u>B3-6</u>		<u>N39</u>																					
<u>C3-3</u>																							
<u>K3-3</u>																							
<u>K3-6</u>																							
<u>B3-3</u>																							
<u>F3-6</u>																							
<u>G3-3</u>																							
<u>G3-6</u>																							
<u>B3-3</u>																							
<u>B3-6</u>																							
<u>G1-1</u>																							
<u>G1-4</u>																							
<u>E4-1</u>																							
<u>E4-4</u>																							

### OBSERVATIONS:

- Clean   
Debris:   
Gypsum:   
Condition of the Grid:
- Very Light   
Light   
Good   
Scrappy
- Moderate   
Moderate   
Undissolved Filter
- Heavy   
Heavy   
Folded
- Very Heavy   
Very Heavy

# TEM ASBESTOS ANALYSIS

Client Sand blank  
 Sample No. 87271D

EMS Lab No. \_\_\_\_\_ of \_\_\_\_\_  
 Page 2

## RECEIVING

## ANALYSIS

**MICROSCOPE**

- H600A - Serial No. 542-36-01
- H600B - Serial No. 542-05-06
- H600C - Serial No. 542-24-03
- ENERGY DISPERSIVE X-RAY SYSTEM
- Kever - Model No. 3200-0106-0365
- Kever - Model No. 3600-0206-0146 Quantum System

Grid Address: \_\_\_\_\_  
 Screen Magnification: 910x  
 Camera Constant: 28.2  
 Accelerating Voltage: 100KV  
 Beam Current: 10  $\mu$ A  
 K-Factor: 1.14  
 Analyst: Boyle Date: 8/26/10

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification												EDS Analysis					Comments					
			Width	Length	NAN	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ	Na	Mg		Si	Ca	Fe		
64-4		NPD																									
64-1																											
64-9																											
64-7																											
64-4																											
65-1																											
65-4																											
65-1																											
65-4																											
65-7																											
65-1																											

**OBSERVATIONS:**

- Clean  Debris:  Very Light  Light  Moderate  Heavy  Very Heavy   
 Gypsum:  Very Light  Light  Moderate  Heavy  Very Heavy   
 Condition of the Grid:  Good  Scrappy  Undissolved Filter  Folded

# TEM ASBESTOS ANALYSIS

Client Sand Bling EMS Lab No. 2 of         
Sample No. 8-25-10 Page 2 of       

## RECEIVING

## ANALYSIS

MICROSCOPE

- H600A - Serial No. 542-36-01
- H600B - Serial No. 542-05-06
- H600C - Serial No. 542-24-03

ENERGY DISPERSIVE X-RAY SYSTEM

- Keveo - Model No. 3200-0106-0365
- Keveo - Model No. 3600-0206-0146  
Quantum System

Grid Address: D  
Screen Magnification: 9,400 X  
Camera Constant: 28.2  
Accelerating Voltage: 100KV  
Beam Current: 10  $\mu$ A  
K-Factor: 14  
Analyst: Bade Date: 8/26/10

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure
<u>E40</u>		<u>N19</u>
<u>S44</u>		
<u>U40</u>		
<u>H41</u>		
<u>H40</u>		
<u>C51</u>		
<u>C54</u>		
<u>B51</u>		
<u>B54</u>		
<u>K51</u>		
<u>K54</u>		
<u>L51</u>		
<u>L54</u>		
<u>M51</u>		
<u>M54</u>		

Dimensions (mm)	
Width	Length

Fiber Classification														
NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ

EDS Analysis					
Na	Mg	Si	Ca	Fe	

Comments

### OBSERVATIONS:

- Clean  Debris  Gypsum  Very Light  Very Light  Good  Light  Light  Scrappy  Moderate  Moderate  Undissolved Filter  Heavy  Heavy  Faded  Very Heavy  Very Heavy

Condition of the Grid:

# TEM ASBESTOS ANALYSIS

Client Sand blank  
 Sample No. 8-25-10

EMS Lab No. \_\_\_\_\_ of \_\_\_\_\_  
 Page \_\_\_\_\_

**RECEIVING**

**ANALYSIS**

MICROSCOPE  
H600A - Serial No. 542-36-01   
H600B - Serial No. 542-05-06   
H600C - Serial No. 542-24-03   
ENERGY DISPERSIVE X-RAY SYSTEM  
Kevex - Model No. 3200-0106-0365   
Kevex - Model No. 3600-0206-0146   
Quantum System

Grid Address: P 91100 X  
Screen Magnification: 2852  
Camera Constant: \_\_\_\_\_  
Accelerating Voltage: 100KV  
Beam Current: 10  $\mu$ A  
K-Factor: 1.4  
Analyst: Podha Date 8/26/10

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments						
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe	
B3-4		N39																								
E3-1																										
E3-4																										
E3-4																										
E3-4																										
E3-4																										
E3-4																										
E3-4																										
E3-4																										

**OBSERVATIONS:**

Clean  
 Debris  
 Gypsum  
 Very Light  
 Very Light  
 Good  
 Light  
 Light  
 Scrappy  
 Undissolved Filter  
 Moderate  
 Moderate  
 Heavy  
 Heavy  
 Folded  
 Very Heavy  
 Very Heavy

TEM - 1B (1-08)

# TEM ASBESTOS ANALYSIS

Client Sand Blnk  
 Sample No. 8-25-10

EMS Lab No. 3  
 Page 3 of 3

## RECEIVING

## ANALYSIS

### MICROSCOPE

- H600A - Serial No. 542-36-01
- H600B - Serial No. 542-05-06
- H600C - Serial No. 542-24-03

### ENERGY DISPERSIVE X-RAY SYSTEM

- Keveley - Model No. 3200-0106-0365
- Keveley - Model No. 3600-0206-0146  
Quantum System

Grid Address: D  
 Screen Magnification: 9150X  
 Camera Constant: 2432  
 Accelerating Voltage: 100KV  
 Beam Current: 10  $\mu$ A  
 K-Factor: 119  
 Analyst: 12ADLE

Date 8/26/10

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments						
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe	
CS-3		N/A																								
CS-6																										
ES-3																										
ES-6																										
ES-8																										
WS-3																										
WS-6																										
HS-3																										
HS-6																										
HS-8																										
CS-1																										
CS-4																										
ES-1																										
ES-4																										
ES-6																										
ES-8																										
ES-1																										
ES-4																										
ES-6																										
ES-8																										

### OBSERVATIONS:

- Clean
- Debris:
- Gypsum:
- Condition of the Grid:
- Very Light
- Light
- Moderate
- Heavy
- Very Heavy
- Very Light
- Good
- Scrappy
- Undissolved Filter
- Folded





# TEM ASBESTOS ANALYSIS

Client Sand blank EMS Lab No. \_\_\_\_\_  
Sample No. 8-25-10 Page 2 of \_\_\_\_\_

## RECEIVING

## ANALYSIS

Grid Address: 1E  
Screen Magnification: 9400 X  
Camera Constant: 272  
Accelerating Voltage: 100KV  
Beam Current: 10 uA  
K-Factor: 14  
Analyst: Pentle

- MICROSCOPE
- H600A - Serial No. 542-36-01
  - H600B - Serial No. 542-05-06
  - H600C - Serial No. 542-24-03
- ENERGY DISPERSIVE X-RAY SYSTEM
- Keveq - Model No. 3200-0106-0365
  - Keveq - Model No. 3600-0206-0146 Quantum System

Date 8/26/10

TEM - 1B (1-08)

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis					Comments							
			Width	Length	NA	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ		Na	Mg	Si	Ca	Fe		
E4-4		Asp																									
E4-4																											
E4-4																											
E4-4																											
E4-4																											
E4-4																											
E4-4																											
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E4-4																											
E4-4																											
E4-4																											
E4-4																											
E4-4																											

**OBSERVATIONS:**

Clean   
Debris:   
Gypsum:   
Condition of the Grid:

Very Light   
Very Light   
Good

Light   
Light   
Scrappy

Moderate   
Moderate   
Undissolved Fiber

Heavy   
Heavy   
Folded

Very Heavy   
Very Heavy

**Spot Size Measurements**

Scope: H60B  
Date: May 2010  
Name: R

Conditions of Measurements

High Voltage: 100K  
Beam Current: 10  $\mu$ A  
Magnification: 19,200  
Condenser Aperture Size: #2

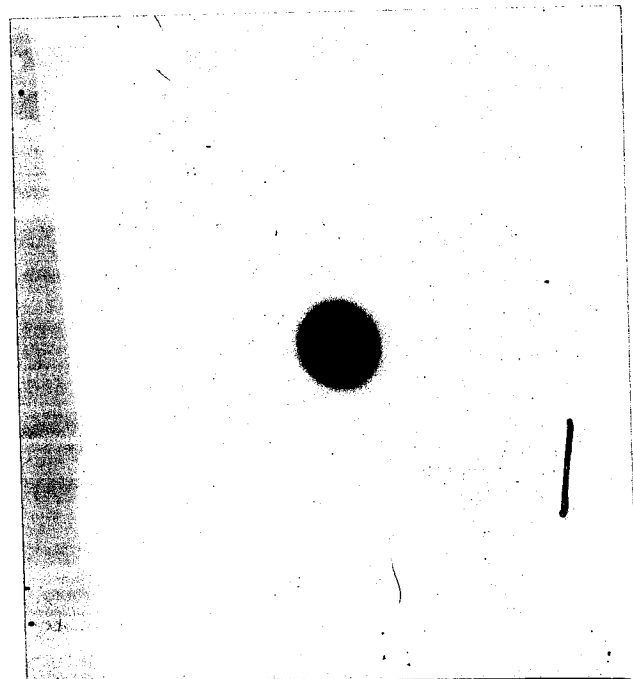
Measurements from a photo 8.5

Shortest diameter: 8.5 mm  
Longest diameter: 9 mm  
Average: 8.75 mm

Spot Size Calculation

$$\text{Spot size in } \mu\text{m} = \frac{(\text{average spot size in mm}) \times 1000 \mu\text{m} \times 0.4125}{\text{Magnification}} \quad 188$$

Note:  $1.65/4 = 0.4125$  (see the Hitachi Fax)



## TEM CAMERA CONSTANT DETERMINATION

TEM H600B

Measured and Calculated by LS Date May 2010

$$\text{Camera Constant (mm A)} = D (\text{mm}) \times 1/2 \times d (\text{A})$$

where D (mm) is the diameter of a gold ring and

d (A) is the d-spacing in Angstroms for a particular reflection

$$\text{CC (1*)} = ( 24.1 \text{ mm}) \times 1/2 \times 2.355 = 2834$$

$$\text{CC (2*)} = ( 27.8 \text{ mm}) \times 1/2 \times 2.039 = 2834$$

$$\text{CC (3*)} = ( 39.3 \text{ mm}) \times 1/2 \times 1.442 = 2834$$

$$\text{CC (4*)} = ( 45.9 \text{ mm}) \times 1/2 \times 1.230 = 2833$$

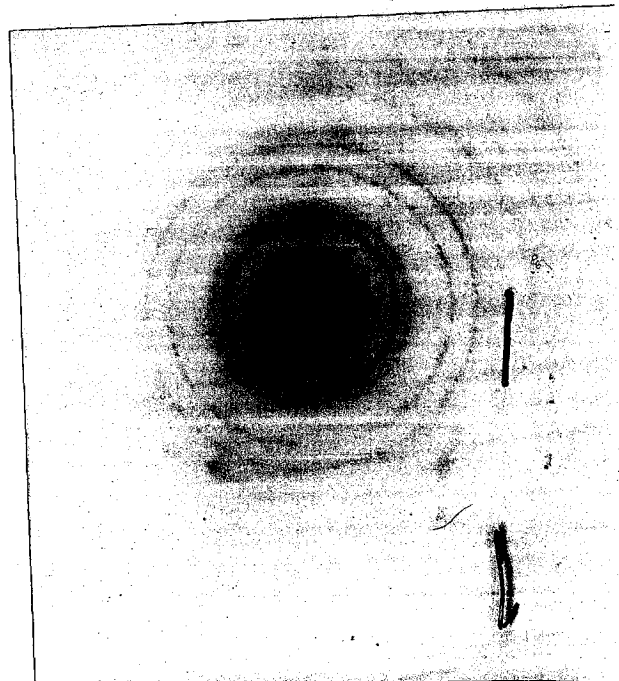
$$\text{Average Camera Constant} = \sqrt{283}$$

\* 1 is the first largest diameter ring. 2 the second, etc.

$$\text{Average Camera Constant} = (\text{CC} \langle 1 \rangle + \dots + \text{CC} \langle n \rangle) \times 1/n$$

For gold:

d(A)	nk1
2.355	(111)
2.039	(200)
1.442	(220)
1.230	(311)
1.1774	(222)



08/07/01  
csl

DATE: May 2010  
 WEEKLY CALIBRATION 3m  
 MONTHLY CALIBRATION 3m  
 AFTER SERVICE CALIBRATION \_\_\_\_\_

A-600/B-600/C-600

BY: R

Measurement	Number of Spacing Flourescent Screen Magnification	Distance (mm)	Number of Spacing Film Magnification
1	<del>25,000x</del> 33.5/6 = 19,260	<del>12,000x</del> 51/12 = 9,180	
2	33.5/6 = 19,260	51.5/12 = 9,270	
3	33/6 = 19,080	51.5/12 = 9,270	
4	33/6 = 19,080	51/12 = 9,180	
5	33.5/6 = 19,260	51/12 = 9,180	
6		51/12 = 9,180	
7	ave 19,200		
8		ave 9,200	
9			
10			
AVERAGE:			

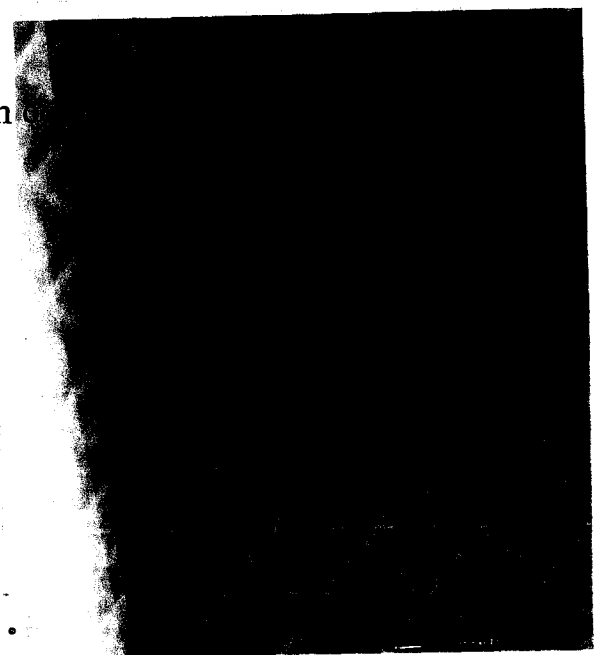
OPERATING VOLTAGE 100 KV

54, 864 lines/inch or 2,160 lines/mm or 0.463µm/line

28, 800 lines/inch or 1,134 lines/mm or 0.882µm/line

15, 240 lines/inch or 600 lines/mm or 1.67µm/line

16.94 µm for one bar and one opening for Ni screen on



# SCOPE B

$$K = \frac{[Cn/C(Si)]}{[In/(Si)]}$$

18.74

n	Cn	RUN 1		RUN 2		RUN 3		RUN 4		RUN 5		RUN 6	
		I(Si)=	Kn	I(Si)=	Kn	I(Si)=	Kn	I(Si)=	Kn	I(Si)=	Kn	I(Si)=	Kn
Na	1.81	1694	1.3034	1095	1.0674	986	1.5627	1133	1.4112	1004	1.5587	395	1.8251
Mg	7.57	6992	1.3207	3738	1.3077	4447	1.4491	4902	1.3641	4714	1.3885	1983	1.5205
Al	6.54	7768	1.027	4152	1.0171	5455	1.0206	5761	1.0028	5708	0.9906	2576	1.0112
Si	18.74	22860	1	12101	1	15953	1	16554	1	16203	1	7464	1
K	0.97	1453	0.8144	827	0.7574	1311	0.6299	1333	0.6428	1195	0.7018	584	0.6615
Ca	8.26	6570	1.5336	3406	1.566	5845	1.203	5222	1.3973	4998	1.4289	2852	1.1535
Ti	3.02	2235	1.6483	1170	1.6668	1821	1.4118	1867	1.4289	1753	1.4895	928	1.2962
Mn	0.14	10	17.078	22	4.1092	12	9.9316	29	4.2645	2	60.523	22	2.5346
Fe	9.51	5898	1.9669	2935	2.0923	4934	1.6408	4856	1.73	4473	1.8383	2351	1.6111
O	43.83			7849	3.6059	7051	5.2917	10526	3.6783	9433	4.0174	3333	5.2377

**\*\* NVLAP REQUIREMENTS \*\***

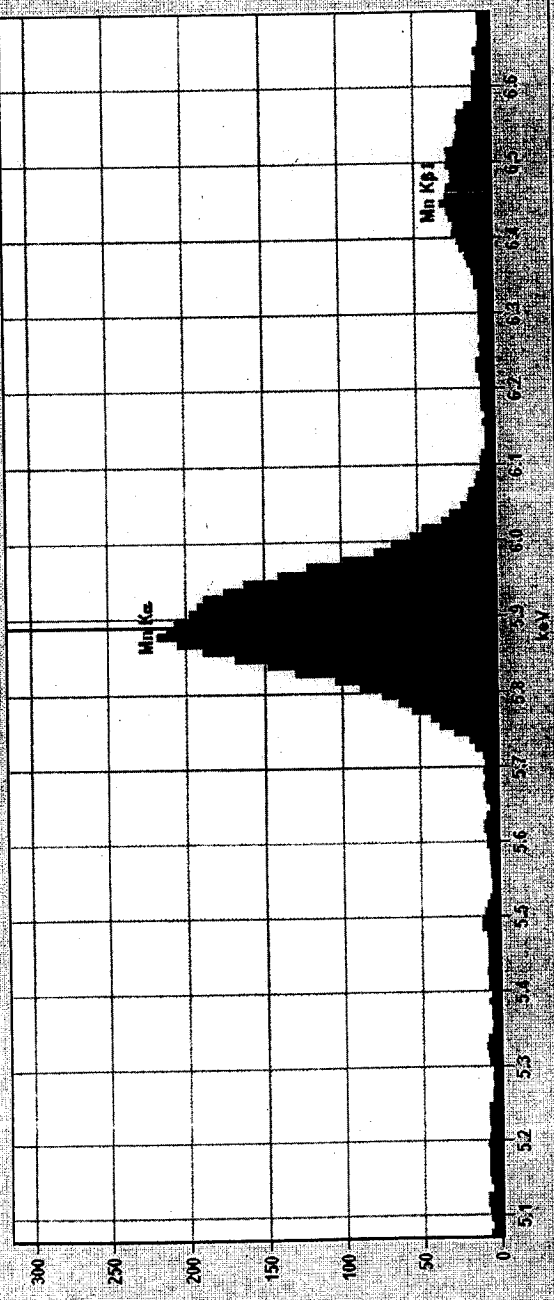
- 1.0 < K(Na) wrt Si < 4.0
- 1.0 < K(Mg) & K(Fe) wrt Si < 2.0
- 1.0 < K(Al) & K(Ca) wrt Si < 1.75

$$K(Mg)/K(Fe) < 1.5$$

- stdev < 10% for Mg, Al, Si, Fe
- stdev < 20% for Na
- wrt mean value of k-factor wrt Si



Full scale counts: 303 EDS RESOLUTION FOR H600B.5.19.10-RS(1) Cursor: 5.888 keV 219 Counts



Peak #	MN Centroid (eV)	Peak Counts	Height (eV)	Area (Counts)
1	5.895	3991	148.79	148.79
2	5.895	3930	155.00	151.89
3	5.894	3178	155.83	153.21
4	5.892	3379	149.17	152.20
5	5.891	3438	155.40	152.84

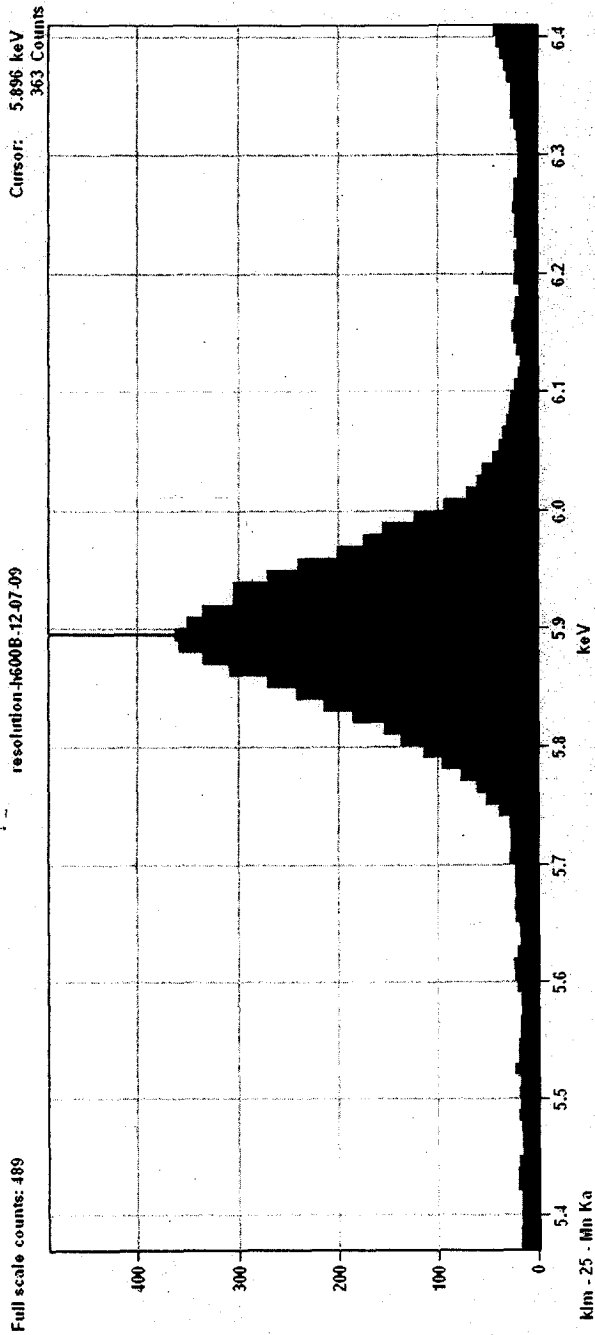
Avg: 5.893  
 Sigma: 0.002  
 RMS: 0.07%  
 10.0%  
 2.3%

Auto Manual RVHM FeS5 Bench Test

Elements  
 Atomic Symbol: MN Line: K  
 Atomic Symbol: Line: K  
 Ratio Peaks

Additional Measurements  
 Measure Zero Peak  RVHM/Std RVHM

Acquisition Criteria  
 Lifetime (s) Max Time: 45  
 Peak Count No. Trks: 5  
 Time Constant: 50 (Slow)



Auto | Manual FWHM | Fe55 Bench Test

Elements  
 Atomic Symbol Mn Line K  
 Atomic Symbol Mn Line K  
 Ratio Peaks

Additional Measurements  
 Measure Zero Peak  Measure FWHM and FWTM

Acquisition Criteria  
 Livetime (s) Max Time: 50  
 Peak Count No. Trials: 5

Time Constant: 50 (Slow)

Trial #	Min Centroid ...	Net Counts	FWHM (eV)	Avg. FWHM ...
1	5.896	1277	126.16	126.16
2	5.900	5295	151.73	138.95
3	5.897	6460	146.02	141.30
4	5.898	5560	146.26	142.54
5	5.899	5291	133.62	140.76
Avg:		4776	140.76	
Sigma:		2014	10.52	
RMS:		42.2%	7.5%	



# 140525



## Laboratory Submittal Form

Page 1 of 1

Date:	Time:	Relinquished by:
Client:	Northgate Environmental Management	Date of Shipment:
Address:	24411 Ridge Route Drive, Suite 130 Laguna Hills, CA 92653	Shipped from: Carrier:
Telephone:		Client P.O. No:
Contact:	Cindy Arnold	Client Project ID: 02027.01.2157
Results via:	<input type="checkbox"/> Fax No:	<input type="checkbox"/> Email address: <input type="checkbox"/> Verbal

(Complete written reports will follow all analyses, in addition to any prior verbal, fax, or email results)

Turnaround Time:	Standard	Sample Preservatives:
Number of Samples:	4	Sampler's Name:
Date & Time of Sample Collection:		Holding Times: Signature:
Type:	<input type="checkbox"/> Water <input type="checkbox"/> Waste Water <input type="checkbox"/> Soil	<input type="checkbox"/> Filter <input type="checkbox"/> Impinger <input type="checkbox"/> Sorbent Tube <input type="checkbox"/> Other

EMS Only	Client Sample No.	Description/Location	Analysis	Volume/Weight
1	SSAQ3-05-0.00_01_BPC		TEM	
2	SSAQ3-05-0.33_01_BPC	Hold		
3	SSAQ3-04-0.00_01_BPC			
4	SSAQ3-04-0.33_01_BPC	Hold		
5				
6		SEE ATTACHMENT		
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

<b>For EMS Only</b>	<b>140525</b>	Received by:	Time: 9:30
Laboratory Number:		Shipping Bill Retained? YES	
Date of Package Delivery: 9/27/2010		Condition of Custody Seal: GOOD	
Condition of Package on Receipt: OK		Chain of Custody Signature:	
Number of Samples: 4		Misc. Info: SF 7/06	
Disposition of Samples: EMS LABS			

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

<b>Required Project Information:</b> Site ID #: <b>TRONOX LLC, HENDERSON</b> Project #: <b>2027.01</b> Site Address: <b>560 W Lake Mead Pkwy</b> City: <b>Henderson</b> State: <b>NV</b> Zip: <b>89015</b>			<b>Required Invoice Information:</b> Send Invoice to: Address: <b>PO Box 55</b> City/State: <b>Henderson, NV 89009</b> Phone #: <b>(849) 260-9293</b> PO #:			Total # of Samples: <b>4</b> Event Complete?							
Lab Name: <b>EMS Laboratories, Inc.</b> Address: <b>117 W Bellevue Dr</b> Pasadena, CA 91105 Lab PI: <b>Tony Kolk</b> Phone/Fax: <b>626-568-4065</b> Lab PI email: <b>tkolk@emslabs.com</b>			Send EOD to: <b>Frank.Hagar@ngem.com</b> CC Hardcopy report to: <b>PDF Electronic Version Only - FTP Upload</b> CC Hardcopy report to:			COC # <b>02027.01.2157</b> Regular _____ Rush <b>X</b> Mark One							
Site PM Name: <b>Derrick Willis</b> Phone/Fax: <b>(849) 375-7004</b> Site PM Email: <b>derrick.willis@ngem.com</b>													
ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	MATRIX CODE	G-GRAB C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/Lab Sample I.D.			Temp in OC	Sample Receipt Conditions
	SSAQ3-05-0.00_01_BPC		SO	C	N	09/24/2010	16:17	3	PCS Soil	X			Y/N
	SSAQ3-05-0.33_01_BPC		SO	C	N	09/24/2010	16:25	3	PCS Soil; Hold	H			Y/N
	SSAQ3-04-0.00_01_BPC		SO	C	N	09/24/2010	16:40	3	PCS Soil	X			Y/N
	SSAQ3-04-0.33_01_BPC		SO	C	N	09/24/2010	16:50	3	PCS Soil; Hold	H			Y/N
													Y/N

*Handwritten:* Frank Barron 9/24/10 17:19  
 Frank Barron  
 Signature of Sampler  
 Company: Francisco Barron, NSEM  
 Tracking #: 9/24/2010  
 Time: 17:48  
 Date: 9/24/2010

**Additional Comments/Special Instructions:**