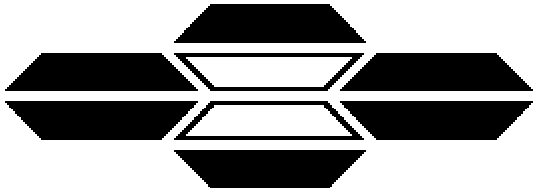

ASBESTOS TEM LABORATORIES, INC.

CARB/EPA Quantitative Bulk Test Method
Transmission Electron Microscopy
Analytical Report

Laboratory Report # 367690

600 Bancroft Way, Ste. A
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(510) 704-8930
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ASBESTOS TEM LABORATORIES, INC

Jan/28/2020

Rock Martin

Pennsylvania DEP
286 Industrial Park Road
Ebensburg, PA 15931

RE: LABORATORY REPORT #367690
Transmission electron microscopy analytical results for 10 bulk material sample(s).
Job Site: SGI - Northern Tract Quarry
Job No.:

Please find below the results for the TEM analysis of one or more bulk material samples. The analytical procedures were performed according to the EPA Test Method For the Determination of Asbestos in Bulk Building Materials - TEM method (EPA 600/R-93/116) modified for quantitative bulk soil sample analysis. Prior to analysis, each sample was logged-in and all pertinent data was recorded. Each sample was checked for damage and disruption of any chain-of-custody seals. A unique laboratory number was assigned to each sample. A hard copy Log-In sheet was generated. This, and all other relevant paper work was kept with the sample throughout the analytical procedures to assure proper analysis.

Sample preparation followed a standard CARB 435 prep method. The entire sample was dried at 135-150 C and then crushed to ~3/8" gravel size. If the submitted sample was >~1 quart, the sample may have been split using a 1/2" riffle splitter following ASTM Method C-702-98 to reduce the sample volume for pulverization. The remaining aliquot, or entire original sample, was then pulverized in a Bico Braun disc pulverizer calibrated to produce a nominal 200 mesh final product. A representative ~60 mg aliquot of material was weighed out, and then placed into solution in a 500 ml beaker filled with distilled water. A known volume of the liquid suspension was filtered onto a 0.2 micron pore size Millipore mixed cellulose ester filter. The filter was then dried in HEPA filtered, Class 100 air on a clean bench. The filter was placed onto a glass microscope slide, sectioned, and collapsed in acetone. The collapsed filter was plasma-etched to remove 10% of the filter surface and then carbon coated. The carbon coated filter was sectioned and the sections placed onto 200-mesh copper TEM sample grids in dimethyl sulfoxide and acetone wick washers. After sufficient time to dissolve the filter material, the TEM sample grids were removed from the baths and placed into labeled sample containers.

TEM analysis was performed on a Philips CM-12 or JEOL 1200 transmission electron microscope operating at 80 or 100 kV. The sample was placed into the microscope where it was first scanned at low magnification to confirm that the distribution of material was reasonably homogeneous. High magnification analysis was performed using a two tier approach: 1) A relatively large area of several TEM grid openings for large asbestos fibers or fiber bundles, and 2) a relatively small area of a number of fields of view for individual asbestos fibers (fibrous particles exhibiting an aspect ratio greater than or equal to 3 to 1, and a length greater than or equal to .5 um). Detected asbestiform structures were subjected to detailed morphological and/or selected area diffraction analysis. If necessary, energy dispersive X-ray analysis was also performed. The length and width of each asbestos fiber was measured. From this data, a total volume and mass of asbestos observed in the scanned area is calculated, and extrapolated to a total weight percent asbestos for each sample.

Sincerely Yours,

Laboratory Manager

Disclaimer - These results relate only to the samples tested as received and must not be reproduced, except in full, with the approval of the laboratory. Incorrect or illegible information supplied by the customer may adversely affect the validity of test results.

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9281

Laboratory Sample # 1582-00001-001

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prepped for CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.49	Filter Type & Pore Size	MCE 0.22um
Volume of Suspension Water (ml):	50	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	17	11

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.78	0.78

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0094	Bundle Scan Area (sq.mm)	0.188
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0094	Fiber Scan Area (sq.mm)	0.047
		Magnification:	15,000x		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9316

Laboratory Sample # 1582-00001-002

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prepped for CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.63	Filter Type & Pore Size	MCE 0.22um
Volume of Suspension Water (ml):	50	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	NSD	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	<0.001	<0.001

COMMENTS

No Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0094	Bundle Scan Area (sq.mm)	0.188
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0094	Fiber Scan Area (sq.mm)	0.047
		Magnification:	15,000x		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9237-A

Laboratory Sample # 1582-00001-003

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prepped for CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	60.06	Filter Type & Pore Size	MCE 0.22um
Volume of Suspension Water (ml):	50	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	25	20

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.81	0.81

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	19	Grid Area (sq.mm)	0.0094	Bundle Scan Area (sq.mm)	0.1786
Grid Op. # Scanned For Small Fibers & Bundles	3	Grid Area (sq.mm)	0.0094	Fiber Scan Area (sq.mm)	0.0282
		Magnification:	15,000x		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9241

Laboratory Sample # 1582-00001-004

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prepped for CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg): 60.92

Volume of Suspension Water (ml): 50

Volume of Suspension Filtered (ml): 0.5

Filter Type & Pore Size: MCE 0.22um

Effective Filter Area (sq.mm): 346

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	20	21

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	3.28	3.28

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles: 9

Grid Area (sq.mm): 0.0094

Bundle Scan Area (sq.mm): 0.0846

Grid Op. # Scanned For Small Fibers & Bundles: 1

Grid Area (sq.mm): 0.0094

Fiber Scan Area (sq.mm): 0.0094

Magnification: 15,000x

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9218

Laboratory Sample # 1582-00001-005

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prepped for CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	61.93	Filter Type & Pore Size	MCE 0.22um
Volume of Suspension Water (ml):	50	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	2	1

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.45	0.45

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0094	Bundle Scan Area (sq.mm)	0.188
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0094	Fiber Scan Area (sq.mm)	0.047
		Magnification:	15,000x		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9264

Laboratory Sample # 1582-00001-006

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prep needed- CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg): 60.13

Volume of Suspension Water (ml): 50

Volume of Suspension Filtered (ml): 0.5

Filter Type & Pore Size: MCE 0.22um

Effective Filter Area (sq.mm): 346

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	1	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.02	0.02

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles: 20

Grid Area (sq.mm): 0.0094

Bundle Scan Area (sq.mm): 0.188

Grid Op. # Scanned For Small Fibers & Bundles: 5

Grid Area (sq.mm): 0.0094

Fiber Scan Area (sq.mm): 0.047

Magnification: 15,000x

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9240

Laboratory Sample # 1582-00001-007

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prep needed- CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.77	Filter Type & Pore Size	MCE 0.22um
Volume of Suspension Water (ml):	50	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	21	14

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	13.0	13.0

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0094	Bundle Scan Area (sq.mm)	0.188
Grid Op. # Scanned For Small Fibers & Bundles	4	Grid Area (sq.mm)	0.0094	Fiber Scan Area (sq.mm)	0.0376
		Magnification:	15,000x		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9216

Laboratory Sample # 1582-00001-008

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prep needed- CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg): 61.98

Volume of Suspension Water (ml): 50

Volume of Suspension Filtered (ml): 0.5

Filter Type & Pore Size: MCE 0.22um

Effective Filter Area (sq.mm): 346

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	4	8

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.97	0.97

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles: 20

Grid Area (sq.mm): 0.0094

Bundle Scan Area (sq.mm): 0.188

Grid Op. # Scanned For Small Fibers & Bundles: 5

Grid Area (sq.mm): 0.0094

Fiber Scan Area (sq.mm): 0.047

Magnification: 15,000x

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9295

Laboratory Sample # 1582-00001-009

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prep needed- CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	61.39	Filter Type & Pore Size	MCE 0.22um
Volume of Suspension Water (ml):	50	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	9	8

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	12.82	12.82

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0094	Bundle Scan Area (sq.mm)	0.188
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0094	Fiber Scan Area (sq.mm)	0.047
		Magnification:	15,000x		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
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600 BANCROFT WAY, STE. A, BERKELEY, CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY ANALYTICAL REPORT

Contact:	Rock Martin	**REPORT NO.**	**367690**
Address:	Pennsylvania DEP 286 Industrial Park Road Ebensburg, PA 15931	Date:	Jan-21-20
		Date Received:	Dec-23-19
Job Site / No.	SGI - Northern Tract Quarry	Total Samples Analyzed:	10

Client Sample # SRM-9304

Laboratory Sample # 1582-00001-010

SAMPLE DESCRIPTION

Greenstone/Metabasalt - Prep needed- CARB 435 TEM as per 11/4/19 Quote

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg): 59.87

Volume of Suspension Water (ml): 50

Volume of Suspension Filtered (ml): 0.5

Filter Type & Pore Size: MCE 0.22um

Effective Filter Area (sq.mm): 346

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	NSD	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	<0.001	<0.001

COMMENTS

NoAsbestos Detected

Filter Loading: Moderate

TEM / ANALYTICAL PARAMETERS

Scanned For Large Fibers & Bundles: 20

Area (sq.mm): 0.0094

Bundle Scan Area (sq.mm): 0.188

Scanned For Small Fibers & Bundles: 5

Area (sq.mm): 0.0094

Fiber Scan Area (sq.mm): 0.047

Magnification: 15,000x

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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367690

ASBESTOS TEM LABORATORIES CHAIN OF CUSTODY

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NEVADA: 1350 Freeport Blvd. #104, Sparks, NV 89431 Phone (775) 359-3377 Fax (775) 359-2798
You may also email this chain of custody to coc@asbestostemlabs.com **** denotes required field***

Company: Pennsylvania DEP	Contact:* Rock Martin	Phone: * 814-472-1891	Email: * martin@pa.gov
Address: *286 Industrial Park Rd	City: * Ebensburg	State: * PA Zip: 15931	Email:
Job Site:* SGI-Northern Tract Quarry	Job #:	PO #:	Email:

Reporting *	X Email	□ Phone	□ Fax	X Mail	□ FTP	□ Pickup	**Billing**	□ Fax	□ Email	□ Mail	□ Pre-Paid	□ On Receipt:	□ 3rd Party
Results Due:*	□ 2 HR	□ 4 HR	□ 6 HR	□ 8 HR	□ 24 HR	□ 48 HR	□ 3 DAY	□ 4 DAY	□ 5 DAY	X 10 DAY	□ Hold Samples	□ *After Hours: ***_____	*see below*
Asbestos Air	□ PCM (NIOSH 7400A	□ TEM AHERA	□ TEM CARB Mod. AHERA	□ TEM EPA Yamate Level II	□ TEM NIOSH 7402	□ ISO 10312	□ ISO 13794						
Asbestos Bulk	□ PLM Standard (EPA 600/R-93-1)	□ PLM 400 PC	□ PLM 1000 PC	□ PLM 400 PC Grav. Red.	□ PLM 1000 PC Grav. Red.	□ TEM EPA Qualitative	□ TEM EPA Quantitatve						
	□ TEM Chatfield (Semi-Quant)	□ **PREP ONLY**	□ **Custom Analysis: **										
Asbestos Soils	X CARB 435 Prep Only	□ CARB 435 PLM 400 PC	□ CARB 435 PLM 1000 PC	□ EPA Soil Screening Qualitative	X TEM EPA/CARB Quantitative								
Asbestos Dust	□ ASTM D-5755 Fiber Count	□ ASTM D-5756 Wt. %	□ ASTM D-5756 Mass	□ ASTM D-6480-99 Dust Wipe	□ Total Particulates (Grav.)								
Asbestos Water	□ 100.2 Potable Drinking Water	□ 100.1 Non Potable Water	□ REPORT TO STATE: EDT # _____										
Lead/Silica	□ Lead Paint Chips	□ Lead Dust Wipe	□ Lead Air Cassette	□ Lead Soil	□ Silica Dust Airborne by NIOSH 7500	□ Crystalline Silica (Single Species)	□ Silica Dust Bulk by NIOSH 7500	□ Crystalline Silica in Bulk (Single Species)					
Sample Storage	□ No Test, Hold Until: _____	□ Test AND Hold Until: _____ *All samples will be held for 3 months from the date of receipt at ATEM. Additional sample storage time may be obtained through ATEM Customer Service.*											
Custom Order	□ Sensitivity: _____	□ Composite	**8 Hour TWA** □	**Special Instructions:** *Please retain portion of sample #'s 9264, 9240, 9216, 9295, 9504 for possible future analysis*									
REANALYSIS	Original Login/Lot # _____/_____	New Analysis Type: _____	TAT: _____	Special Instructions: _____									

Sample # *	Sample Type	Date Collected	Time On	Time Off	Total Time (min)	Flow Rate (lpm) On	Flow Rate (lpm) Off	Flow Rate (lpm) Average	Volume or Area Sampled	Hold Sample	Description *
SRM-9281	rock	1/16/14							100s	□	Greenstone/Metabasalt - prepped for CARB 435 TEM as per 11/4/19 Quote
SRM-9316	↓	1/16/14							↓	□	↓
SRM-9237-A		10/4/19								□	
SRM-9241		1/16/14								□	
SRM-9218		1/16/14								□	
SRM-9264		12/19/19							~1 pint	□	Greenstone/Metabasalt - prep needed - CARB 435 TEM as per 11/4/19 Quote
SRM-9240		↓							↓	□	
SRM-9216										□	
SRM-9295										□	
SRM-9504	↓	↓							↓	□	
										□	

Submitted By *	Rock Martin /	**Received By**	MTZ
Date/Time Submitted *		**Date/Time Received**	
Submitted By		**Received By**	
Date/Time Submitted		**Date/Time Received**	DEC23 '19 4:54PM

*** Any special instructions, RUSH results or Custom Analysis, you must clarify these specifications AND, of more importance, contact us here at ATEM ahead of time to manage scheduling to meet your requests. Drop off and processing of samples after hours cannot be accommodated without proper notification from you, and confirmation by ATEM staff.*