



TEM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 300084

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : PBS Engineering and Environmental - Bend

Lab Job No. : 24T-07170

Project : 2023 Black Butte SD Bond Hazmat

Report Date : 06/20/2024

Project # : 27624.000 Phase 0003

Sample Date : Not Provided

Identification : Asbestos, Air Filter Analysis

Test Method : Transmission Electron Microscopy/X-Ray Analysis (TEM/EDX) EPA 40 CFR 763

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On 6/20/2024, five (5) air cassette samples were submitted by a representative of PBS Engineering and Environmental - Bend for asbestos analysis by TEM/EDX. The TEM Analysis Sheets are attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Sample Volume (liters)	Area Analyzed (mm ²)	Total Asbestos Structures	Analytical Sensitivity (s/cc)	Asbestos Concentration (s/cc)	Asbestos Concentration (s/mm ²)
A27624.000-0001	Clearance	1350	0.055	0	0.005	<0.005	<18.2
A27624.000-0002	Clearance	1350	0.055	0	0.005	<0.005	<18.2
A27624.000-0003	Clearance	1350	0.055	0	0.005	<0.005	<18.2
A27624.000-0004	Clearance	1350	0.055	0	0.005	<0.005	<18.2
A27624.000-0005	Clearance	1350	0.055	0	0.005	<0.005	<18.2

The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. The laboratory is not responsible for data provided by non-laboratory personnel. Reported results are dependent on the volume of air sampled and measured by non-laboratory personnel and are not covered by the laboratory's NVLAP accreditation. Laboratory C.V. = 0.10 based on NIST SRM 1876b standard. Accredited by the National Voluntary Laboratory Accreditation Program for Airborne Asbestos Fiber Analysis under Lab Code 102056-0.

Analyst(s): Bruce Crabb

Lab Manager : Heather Lopez

Lab Director : Bruce Crabb

Approved Signatory : _____

Approved Signatory : _____



Thank you for choosing Moody Labs



TEM Analysis Sheet

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Client :	PBS Engineering and Environmental - Bend	Filter: 0.45 μm /MCE/385 mm ²	Total Asbestos Structures: 0
Project :	2023 Black Butte SD Bond Hazmat	Sample Volume: 1350 liters	Total Asbestos Structures: 0 (>5)
Lab Job No. :	24T-07170	No. of Squares: 5	Analytical Sensitivity: 0.005 s/cc
	Client Sample #: A27624.000-0001	Square Field Area: 0.011 mm ²	Asbestos Concentration: <0.005 s/cc
Sample Desc:	Clearance	Total Area Analyzed: 0.055 mm ²	Asbestos Concentration: <18.2 s/mm ²

Sqr#	Grid#	Sqr ID	Struct #	Structure Type	Structure	L (μm)	W (μm)	SAED	Photo ID	EDX	Spectra ID
1	1	D1		No Structures Detected							
2	1	D3		No Structures Detected							
3	1	D5		No Structures Detected							
4	2	D1		No Structures Detected							
5	2	D3		No Structures Detected							

Microscope: JEOL 1200EXII KV: 100kV Mag: 20000

Comments:

Analyst: Bruce Crabb

Date Analyzed: 6/20/2024

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Client :	PBS Engineering and Environmental - Bend	Filter: 0.45 µm/MCE/385 mm ²	Total Asbestos Structures: 0
Project :	2023 Black Butte SD Bond Hazmat	Sample Volume: 1350 liters	Total Asbestos Structures: 0 (>5)
Lab Job No. :	24T-07170	No. of Squares: 5	Analytical Sensitivity: 0.005 s/cc
	Client Sample #: A27624.000-0002	Square Field Area: 0.011 mm ²	Asbestos Concentration: <0.005 s/cc
Sample Desc:	Clearance	Total Area Analyzed: 0.055 mm ²	Asbestos Concentration: <18.2 s/mm ²

Sqr#	Grid#	Sqr ID	Struct #	Structure Type	Structure	L (µm)	W (µm)	SAED	Photo ID	EDX	Spectra ID
1	1	D1		No Structures Detected							
2	1	D3		No Structures Detected							
3	1	D5		No Structures Detected							
4	2	D1		No Structures Detected							
5	2	D3		No Structures Detected							

Microscope: JEOL 1200EXII KV: 100kV Mag: 20000

Comments:

Analyst: Bruce Crabb

Date Analyzed: 6/20/2024

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Sample No.: A27624.000-0002 (Page 1)



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Client :	PBS Engineering and Environmental - Bend	Filter: 0.45 µm/MCE/385 mm ²	Total Asbestos Structures: 0
Project :	2023 Black Butte SD Bond Hazmat	Sample Volume: 1350 liters	Total Asbestos Structures: 0 (>5)
Lab Job No. :	24T-07170	No. of Squares: 5	Analytical Sensitivity: 0.005 s/cc
	Client Sample #: A27624.000-0003	Square Field Area: 0.011 mm ²	Asbestos Concentration: <0.005 s/cc
Sample Desc:	Clearance	Total Area Analyzed: 0.055 mm ²	Asbestos Concentration: <18.2 s/mm ²

Sqr#	Grid#	Sqr ID	Struct #	Structure Type	Structure	L (µm)	W (µm)	SAED	Photo ID	EDX	Spectra ID
1	1	C1		No Structures Detected							
2	1	C3		No Structures Detected							
3	1	C5		No Structures Detected							
4	2	C1		No Structures Detected							
5	2	C3		No Structures Detected							

Microscope: JEOL 1200EXII KV: 100kV Mag: 20000

Comments:

Analyst: Bruce Crabb

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Sample No.: A27624.000-0003 (Page 1)



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Client :	PBS Engineering and Environmental - Bend	Filter: 0.45 µm/MCE/385 mm ²	Total Asbestos Structures: 0
Project :	2023 Black Butte SD Bond Hazmat	Sample Volume: 1350 liters	Total Asbestos Structures: 0 (>5)
Lab Job No. :	24T-07170	No. of Squares: 5	Analytical Sensitivity: 0.005 s/cc
	Client Sample #: A27624.000-0004	Square Field Area: 0.011 mm ²	Asbestos Concentration: <0.005 s/cc
Sample Desc:	Clearance	Total Area Analyzed: 0.055 mm ²	Asbestos Concentration: <18.2 s/mm ²

Sqr#	Grid#	Sqr ID	Struct #	Structure Type	Structure	L (µm)	W (µm)	SAED	Photo ID	EDX	Spectra ID
1	1	C1		No Structures Detected							
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3	1	C5		No Structures Detected							
4	2	C1		No Structures Detected							
5	2	C3		No Structures Detected							

Microscope: JEOL 1200EXII KV: 100kV Mag: 20000

Comments:

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Project :	2023 Black Butte SD Bond Hazmat	Sample Volume: 1350 liters	Total Asbestos Structures: 0 (>5)
Lab Job No. :	24T-07170	No. of Squares: 5	Analytical Sensitivity: 0.005 s/cc
	Client Sample #: A27624.000-0005	Square Field Area: 0.011 mm ²	Asbestos Concentration: <0.005 s/cc
Sample Desc:	Clearance	Total Area Analyzed: 0.055 mm ²	Asbestos Concentration: <18.2 s/mm ²

Sqr#	Grid#	Sqr ID	Struct #	Structure Type	Structure	L (μm)	W (μm)	SAED	Photo ID	EDX	Spectra ID
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3	1	C5		No Structures Detected							
4	2	D1		No Structures Detected							
5	2	D3		No Structures Detected							

Microscope: JEOL 1200EXII KV: 100kV Mag: 20000

Comments:

Analyst: Bruce Crabb

Date Analyzed: 6/20/2024

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Sample No.: A27624.000-0005 (Page 1)