December 14, 2018

GEM Environmental P.O. Box 9053 Missoula, MT 59807

CLIENT PROJECT: VOFM - Mcgill Hall Rm 212; 18-324

**LAB CODE**: T182994

Dear Customer:

Enclosed are asbestos analysis results for TEM air samples received at our laboratory on December 14, 2018. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per NIOSH 7402 Method.

The current OSHA 8-hour time weighted average permissible exposure limit (PEL) for asbestos is 0.1 f/cc and the 30 minutes excursion limit is 1 f/cc. The detection limit for the NIOSH 7402 method is one confirmed asbestos fiber above 95% expected mean blank value.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH Laboratory Director

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# **ASBESTOS ANALYTICAL REPORT By: Transmission Electron Microscopy**

### **Prepared for**

## **GEM Environmental**

CLIENT PROJECT: VOFM - Mcgill Hall Rm 212; 18-324

LAB CODE: T182994

TEST METHOD: Air NIOSH 7402

REPORT DATE: 12/14/18



### **ASBESTOS AIR ANALYSIS**

By: TRANSMISSION ELECTRON MICROSCOPY

**Client:** GEM Environmental

P.O. Box 9053 Missoula, MT 59807 Lab Code:T182994Date Received:12-14-18Date Analyzed:12-14-18Date Reported:12-14-18

Project: VOFM - Mcgill Hall Rm 212; 18-324

### **TEM AIR NIOSH 7402**

Client ID Lab ID	Volume (Liters)	PCM f/cc	Asbestos Type	Asbestos Fibers	Asbestos %	Asbestos f/cc
TEM-01 T89353	1620	0.0017	None Detected	0	0	<0.0017
TEM-02 T89354	1620	0.0017	None Detected	0	0	<0.0017
TEM-03 T89355	1620	0.0017	None Detected	0	0	<0.0017



**LEGEND:** f/cc = fibers/cubic centimeter

**METHOD:** NIOSH 7402

Limit of Detection: 1 confirmed asbestos fiber above 95% of expected mean blank value

**REGULATORY LIMIT:** OSHA Excursion Limit (EL) is 1.0 fibers per cc based on a 30 minute sample; OSHA Permissible Exposure Limit (PEL) is 0.10 fibers per cc based on 8 hour TWA

**ANALYTICAL EQUIPMENT:** JEOL Electron Microscope (JEM-1200 EXII) NORAN EDS System 7 (NSS112E)

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request.* Samples were received in acceptable condition unless otherwise noted.

Information provided by customer includes customer sample ID, location, volume and area as well as

No Field Blanks were submitted for project T182994.

**ANALYST** 

amila Peichert

APPROVED BY:

Tianbao Bai, Ph.D., CIH Laboratory Director



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LAB USE ONLY:	
ECEI Lab Code:	
ECEI Lab I.D. Ran	

730 SE Maynard Road, Cary, NC 27511 Tel: 866-481-1412; Fax: 919-481-1442

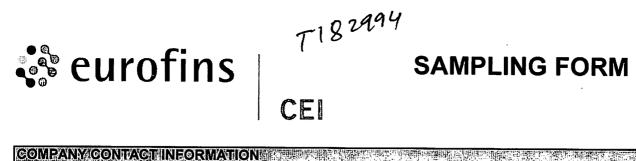
COMPANY INFORMATION	PROJECT INFORMATION		
ECEI CLIENT #:	Job Contact: Christopher Casas		
Company: GEM Environmental, Inc.	Email / Tel: chris.casas@gem-environmental.com		
Address: P.O. Box 9053	Project Name: VoFM - Mcgill Hall Rm 212		
Missoula, MT 59807	Project ID#: (4-324		
Email: chris.casas@gem-environmental.com	PO #:		
Tel: 406-370-4139 Fax:	STATE SAMPLES COLLECTED IN: MT		

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES

		TURN AROUND TIME					
ASBESTOS	METHOD	4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600						
PLM POINT COUNT (400)	EPA 600						
PLM POINT COUNT (1000)	EPA 600						
PLM GRAV w POINT COUNT	EPA 600						
PLM BULK	CARB 435						
PCM AIR*	NIOSH 7400						
TEM AIR	EPA AHERA				2' [2]		
TEM AIR	NIOSH 7402		X				
TEM AIR (PCME)	ISO 10312						
TEM AIR	ASTM 6281-15						
TEM BULK	CHATFIELD						, D
TEM DUST WIPE	ASTM D6480-05 (2010)		Ď.				
TEM DUST MICROVAC	ASTM D5755-09 (2014)						
TEM SOIL	ASTM D7521-16						
TEM VERMICULITE	CINCINNATI METHOD						
TEM QUALITATIVE	IN-HOUSE METHOD						
OTHER:							
REMARKS / SPECIAL IN		ositive St	ор			ccept Sample	
Relinquished By:	Date/Time		Received By:		Date/Time 12/14 9:40		

By submitting samples, you are agreeing to ECEI's Terms and Conditions. Samples will be disposed of 30 days after analysis

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COMPANYCONWACTINEORMATION	
Company: GEM Environmental, Inc.	Job Contact: Christopher Casas
Project Name:	
Project ID #:	Tel: 406-370-4139

SAMPLE ID#	DESCRIPTION// LOCATION	VOLUME/		
SAMPLE ID#	AC / Am 2/2 C	1620	PLM	STOREST TEM
TR41-A7	A/ / DA 1/2 D	1020	PLM	TEM
78M-01 79M-07 79M-03	AC / RM 2/2 B AC / RM 2/2 A	V	PLM D	TEM
17/11/03	no / nm olza	W	PLM	TEM
W-AH-0(	Rm 212 A	150FT	PLM	TEM
OV AH O	hm L/LR	17471	PLM	TEM
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