

### **CAMPUS PLANNING, DESIGN & CONSTRUCTION**

Sixth Avenue and Grant Street • P.O. Box 172760 • Bozeman, Montana 59717-2760 Phone: (406) 994-5413 • Fax: (406) 994-5665

### ADDENDUM NO. 5 - OUTLINE AND SUMMARY INFORMATION

Project Name: MSU Barnard 111 – Lithography Lab

Location: Montana State University - Bozeman

PPA No.: 25-1223

Date: 10/29/25

Owner: State of Montana, MSU - Bozeman

Plew Building 6<sup>th</sup> and Grant, PO Box 172760

Bozeman, Montana 59717-2760

To: All Plan Holders of Record

The Plans and Specification prepared by by <u>Cushing Terrell</u> dated <u>July 15, 2025</u> shall be clarified and added as follow. The bidder proposes to perform all the following clarifications or changes. It is understood that the Base Bid shall include any modification of Work or Additional Work that may be required by reason of the following change or clarifications.

The Bidders are to acknowledge the receipt of this Addendum by inserting its number and date into their Bid Forms. Failure to acknowledge may subject the Bidder to disqualification and rejection of the bid. This Addendum forms part of the Contract Documents as if bound therein and modifies them as follows:

#### 1. GENERAL PRE-BID QUESTIONS

a) **Question:** Plan sheet M200 under keynotes 4 and 12 calls for cold water pipe and compressed air pipes to connect at the mechanical chase, however, a specific location in the mechanical chase is not defined. Can this be clarified, in terms of distance to the specific POC location?

**Answer:** The distances are approximately 50' south and 21' east from the northwest corner of the chiller room to the anticipated connection locations in the mechanical chase.

b) **Question:** Will the any of the Owner furnished equipment require floor boxes, or will all MEP connections come in from overhead?

**Answer:** No through floor connections appear to be indicated on the equipment install guide.

c) **Question:** Please confirm whether ClimateMaster WSHPs, represented by Vemco, are an acceptable manufacturer for this project.

Answer: WHSP, Approved Manufacturer: Climatemaster

### 2. ATTACHMENTS

- a) Pre-Renovation Asbestos Inspection Report
- b) **REPLACE** sheets E001 and E400 in its entirety to clarify rough in for new data along CMU wall.
  - See attached E001 and E400.



October 27, 2025

Ms. Ashna Peters
Project Manager
Planning, Design & Construction
University Facility Management
Montana State University
Bozeman, Montana

Delivered via email: <u>asna.peters@montana.edu</u>

SUBJECT: Pre-Renovation Asbestos Inspection Report

Rooms 110 and 111 Barnard Hall Montana State University Bozeman, Montana

Tetra Tech Project No. 117-001068-26002

Dear Ms. Peters:

On October 15, 2025, Tetra Tech, Inc. (Tetra Tech) conducted a pre-renovation asbestos inspection at the above-referenced site. Based on correspondence with you before the commencement of the project, Tetra Tech was instructed to inspect for suspect asbestos-containing materials (ACM) for future renovation purposes. Details of our inspection are provided below.

#### PRE-RENOVATION ASBESTOS INSPECTION

The pre-renovation asbestos inspection was conducted in accordance with the Administrative Rules of Montana (ARM) 17.74.354, using the currently recognized standard protocol developed under the National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Asbestos Hazard Emergency Response Act (AHERA), as administered by the State of Montana Department of Environmental Quality (MDEQ).

Mr. Chanc Lawrence of Tetra Tech, MDEQ Accredited Asbestos Inspector, collected samples of suspect ACM. **Attachment A** provides his MDEQ Asbestos Inspector Accreditation.

The bulk samples were shipped, along with the completed chain of custody (COC) documentation, to Crisp Analytical of Carrollton, Texas, for the analysis of asbestos fibers by polarized light microscopy (PLM) using U.S. Environmental Protection Agency (EPA) Methods described in 40 CFR Part 763 Appendix E Subpart E (Interim and EPA 600/R-93 / 116 (Improved). A copy of the bulk asbestos laboratory analytical report and COC is provided in **Attachment B**. Approximate sample collection locations are provided in **Figure F-01**.

The following suspect ACMs sampled from the site were found not to contain asbestos by laboratory analysis:

- 9-inch by 9-inch blue vinyl floor tile and associated tan mastic located in Rooms 110 and 111 (BH-F2.1A, B, C)
- 9-inch by 9-inch tan vinyl floor tile and associated tan mastic located in Rooms 110 and 111 (BH-F2.2A, B, C)
- 9-inch by 9-inch red vinyl floor tile and associated tan mastic located in Rooms 110 and 111 (BH-F2.3A, B. C)
- 2-foot by 4-foot white with pinholes and fissured ceiling panels located in Rooms 110 and 111 (BH-M5.1A, B, C)

- 4-inch black vinyl cove base and associated tan mastic located in Room 111 (BH-M12.1A, B, C)
- 4-inch tan vinyl cove base and associated tan mastic located in Room 110 (BH-M12.2A, B, C)
- Green painted CMU block and gray mortar located in Room 111 (BH-M22.1A, B, C)
- Multicolored painted light orange peel textured wallboard system located in Rooms 110 and 111 (BH-S3.1A, B, C)
- White spray on fireproofing on metal roof decking located in Rooms 110 and 111 (BH-S5.1A, B, C)

#### **LIMITATIONS**

The purpose of the asbestos inspection is to reasonably test for evidence of asbestos in suspect ACM building materials. It should be noted that no inspection can be comprehensive or exhaustive enough to eliminate the possibility that asbestos present at the site may not be detected during the inspection. Therefore, the completion of this or any inspection for asbestos should not be considered a warranty or guarantee that these materials do not exist, even if they are not detected through an inspection.

Our opinions are intended exclusively for Montana State University. The services provided by Tetra Tech may not meet the needs of other users, and any use or reuse of this document or its findings is prohibited and at the user's own risk. No changes or modifications are allowed without Tetra Tech's written approval. Additionally, the opinions given are limited by the scope of services requested and the site conditions observed during our inspection. Therefore, our opinions and recommendations may not apply to future site conditions that we have not had the opportunity to assess.

information, please contact me at our Tetra Tech Billings, Montana office at (406) 248-9161.

Respectfully submitted,

### **TETRA TECH**

Roger W. Herman, Jr.

Roger W. Herman, Jr.

Asbestos, Lead & IH Services Manager

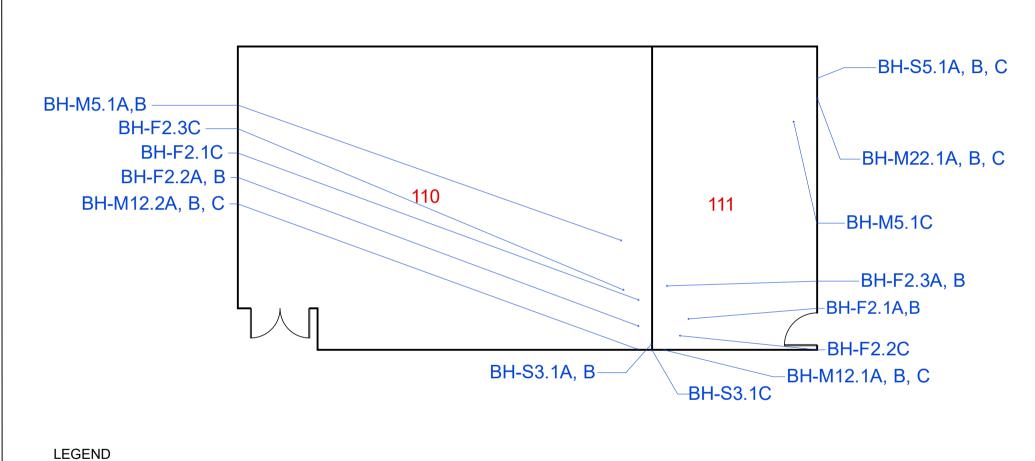
**Figures** 

Attachment A – MDEQ Asbestos Inspector Accreditation

Attachment B - Bulk Asbestos Laboratory Analytical Report and COC

 $I: H-M \setminus SU\_Barnard\ Hall\_Rooms\ 110-111\_Pre-Renovation\ Asbestos\ Inspection. docx$ 

**FIGURES** 



LLGLIND



Not To Scale

ATTACHMENT A MDEQ Asbestos Inspector Accreditation

#### CHANC LAWRENCE

has met the requirements of Montana Administrative Rule 17.74.362 and/or 17.74.363 for accreditation in the following asbestos occupation(s) through the specified expiration date(s).

Asbestos Inspector
Project Contractor/Supervisor

MTA-6668 07/30/2026 07/25/2026

MT DEQ Asbestos Control Program

CHANC LAWRENCE 0052 GOLDEN ACRES DR 3ILLINGS MT 59106 ATTACHMENT B Bulk Asbestos Laboratory Analytical Report and COC

### Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798



### CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Materials Characterization - Bulk Asbestos Analysis

**Laboratory Analysis Report - Polarized Light** 

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101 Customer Project: 117 - Barnard Hall RM 110/111

Reference #: CAL25107836AS Date: 10/22/25

#### **Analysis and Method**

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

#### Discussion

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.

#### Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235
AIHA LAP, LLC Laboratory #102929

Page 1 of 11

### Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

### CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Overview of Project Sample Material Containing Asbestos

Customer	Project:		117 - Barnard Hall RM 110/111		CA Labs Project #: CAL25107836AS
Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

#### Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate gypsum - gypsum bi - binder or - organic ma - matrix mi - mica ve - vermiculite

ot - other

pe - perlite qu - quartz fg - fiberglass mw - mineral wool wo - wollastinite ta - talc sy - synthetic

ce - cellulose

br - brucite ka - kaolin (clay) pa - palygorskite (clay)

This report relates to the items tested as received. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

10/15/2025

100% qu,ca

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

3 Days Samples Rec'd: 10/20/25 10:30AM

Phone # 406-248-9161 Date Of Sampling:

Fax# 406-248-9282 Purchase Order #:

Laboratory Analysts Physical Description of Sample # Com Layer Homo-Asbestos type / Non-asbestos Non-Sample ID ment Subsample geneo calibrated visual fiber type / fibrous estimate percent percent us type / (Y/N)percent

F2.1A- Vinyl Floor Tile and Mastic/ 93411 BH-F2.1A gray floor tile None Detected

F2.1A-

93411 tan mastic None Detected 100% gy,bi 2

F2.1B- Vinyl Floor Tile and Mastic/ 93412 BH-F2.1B gray floor tile None Detected 100% qu,ca

F2.1B-

93412 None Detected 2 tan mastic 100% gy,bi

F2.1C- Vinyl Floor Tile and Mastic/ 93413 BH-F2.1C gray floor tile None Detected 100% qu,ca

F2.1C-

93413 None Detected tan mastic 100% gy,bi

F2.2A- Vinyl Floor Tile and Mastic/ 93414 BH-F2.2A off-white floor tile None Detected 100% qu,ca Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate mi - mica fg - fiberglass ce - cellulose gy - gypsum ve - vermiculite mw - mineral wool br - brucite bi - binder ot - other wo - wollastonite ka - kaolin (clay)

or - organic pe - perlite ta - talc pa - palygorskite (clay) Approved Signatories: ma - matrix qu - quartz sy - synthetic

Tomas Vazquez Analyst

- Fire Damage significant fiber damage reported percentages reflect unaltered fibers
   Fire Damage no significant fiber damages effecting fibrous percentages
- 3. Actinolite in association with Vermiculite
- 4. Layer not analyzed attached to previous positive layer and contamination is suspected
- 5. Not enough sample to analyze

C.T. Rem

Technical Manager Tanner Rasmussen Senior Analyst Julio Robles

- 6. Anthophyllite in association with Fibrous Talc
- 7. Contamination suspected from other building materials
- 8. Favorable scenario for water separation on vermiculite for possible analysis by another method
- 9. < 1% Result point counted positive
- 10. TEM analysis suggested

Crisp Analytical, L.L.C.

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CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

3 Days

Samples Rec'd: 10/20/25 10:30AM 10/15/2025 Date Of Sampling:

Phone # 406-248-9161 Fax# 406-248-9282

Laboratory Analysts Physical Description of Sample # Com Layer Sample ID ment Subsample

Homogeneo us

(Y/N)

Asbestos type / calibrated visual estimate percent

Non-asbestos Nonfiber type / fibrous percent type /

F2.2A-

93414 2 tan mastic None Detected

100% gy,bi

percent

F2.2B- Vinyl Floor Tile and Mastic/ 93415 BH-F2.2B off-white floor tile

None Detected 100% qu,ca

Purchase Order #:

F2.2B-

93415 tan mastic None Detected 100% gy,bi

F2.2C- Vinyl Floor Tile and Mastic/ 93416 BH-F2.2C

off-white floor tile None Detected

100% gu.ca

F2.2C-

93416 tan mastic None Detected

100% gy,bi

BH-F2.3A

F2.3Atan mastic

tan floor tile

F2.3A- Vinyl Floor Tile and Mastic/

None Detected

None Detected

100% gy,bi

100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235 AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate gy - gypsum bi - binder

or - organic

ma - matrix

mi - mica ve - vermiculite ot - other

pe - perlite

qu - quartz

fg - fiberglass mw - mineral wool wo - wollastonite ta - talc

sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

93417

93417

Tomas Vazquez Analyst

Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
 Fire Damage no significant fiber damages effecting fibrous percentages

3. Actinolite in association with Vermiculite

4. Layer not analyzed - attached to previous positive layer and contamination is suspected

5. Not enough sample to analyze

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Technical Manager Senior Analyst Tanner Rasmussen Julio Robles

6. Anthophyllite in association with Fibrous Talc

7. Contamination suspected from other building materials

8. Favorable scenario for water separation on vermiculite for possible analysis by another method

9. < 1% Result point counted positive

10. TEM analysis suggested

Crisp Analytical, L.L.C.

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CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

93418

93420

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

3 Days

(Y/N)

Samples Rec'd: 10/20/25 10:30AM 10/15/2025 Date Of Sampling:

Phone # 406-248-9161 Fax# 406-248-9282

Laboratory Analysts Physical Description of Sample # Com Layer Sample ID ment Subsample

Purchase Order #: Homo-Asbestos type / geneo calibrated visual estimate percent us

None Detected

None Detected

TDSHS 30-0235

Non-asbestos fiber type / percent

fibrous type / percent

Non-

F2.3A-

93417 3 white leveling compound None Detected

100% qu,ca

100% qu,ca

F2.3B-

BH-F2.3B

93418 None Detected tan mastic 100% gy,bi

F2.3B-

93418 white leveling compound None Detected 100% gu.ca

F2.3C- Vinyl Floor Tile and Mastic/

F2.3B- Vinyl Floor Tile and Mastic/

tan floor tile

93419 BH-F2.3C tan floor tile None Detected 100% qu,ca

F2.3C-93419 2

BH-M5.1A

None Detected tan mastic 100% gy,bi

> M5.1 Ceiling Panels/ white surfacing

AIHA LAP, LLC Laboratory #102929

Dallas NVLAP Lab Code 200349-0 TEM/PLM

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate gy - gypsum bi - binder or - organic

ma - matrix

mi - mica ve - vermiculite ot - other

pe - perlite

qu - quartz

fg - fiberglass mw - mineral wool wo - wollastonite ta - talc

sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

100% qu,bi

Tomas Vazquez Analyst

Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
 Fire Damage no significant fiber damages effecting fibrous percentages

3. Actinolite in association with Vermiculite

4. Layer not analyzed - attached to previous positive layer and contamination is suspected

5. Not enough sample to analyze

Technical Manager

C.T. Rem

Tanner Rasmussen

Senior Analyst Julio Robles

6. Anthophyllite in association with Fibrous Talc

7. Contamination suspected from other building materials

8. Favorable scenario for water separation on vermiculite for possible analysis by another method

9. < 1% Result point counted positive

10. TEM analysis suggested

Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

3 Days

(Y/N)

Samples Rec'd: 10/20/25 10:30AM 10/15/2025 Date Of Sampling:

percent

Phone # 406-248-9161 Fax# 406-248-9282

Purchase Order #: Laboratory Analysts Physical Description of Sample # Com Layer Homo-Asbestos type / Non-asbestos Non-Sample ID ment Subsample geneo calibrated visual fiber type / fibrous estimate percent us percent type /

M5.1 35% ce 30% 93420 A-2 tan ceiling tile None Detected 35% fg qu,pe,ca Ceiling Panels/ white M5.1 93421 BH-M5.1B surfacing None Detected 100% qu,bi M5.1 35% ce 30% 93421 B-2 tan ceiling tile None Detected 35% fg qu,pe,ca M5.1 Ceiling Panels/ white 93422 BH-M5.1C surfacing None Detected 100% gu,bi 35% ce 30% M5.1 93422 C-2 tan ceiling tile None Detected 35% fg qu,pe,ca

M12.1 Vinyl Cove Base and Mastic/ 93423 BH-M12.1A black baseboard None Detected 100% gy,ma

M12.1

93423 None Detected A-2 tan mastic Dallas NVLAP Lab Code 200349-0 TEM/PLM

TDSHS 30-0235

### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

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ma - matrix

mi - mica ve - vermiculite ot - other

pe - perlite

qu - quartz

fg - fiberglass mw - mineral wool wo - wollastonite ta - talc

sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

Tomas Vazquez Analyst

- Fire Damage significant fiber damage reported percentages reflect unaltered fibers
   Fire Damage no significant fiber damages effecting fibrous percentages
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C.T. Rem

Technical Manager Tanner Rasmussen Senior Analyst Julio Robles

100% gy,bi

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# Polarized Light Asbestiform Materials Characterization

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Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** 

Samples Rec'd: 10/20/25 10:30AM

Date: 10/22/2025

10/15/2025

Phone # 406-248-9161 Date Of Sampling:

Fax# 406-248-9282 Purchase Order #: Laboratory Analysts Physical Description of Sample # Com Layer Homo-Asbestos type / Non-asbestos

Non-Sample ID ment Subsample geneo calibrated visual fiber type / fibrous us estimate percent percent type / (Y/N)percent

3 Days

M12.1 100% 93423 A-3 white surfaced white compound None Detected qu,bi,ca

M12.1 Vinyl Cove Base and Mastic/ 93424 BH-M12.1B black baseboard None Detected 100% gy,ma

M12.1 93424 None Detected B-2 tan mastic 100% gy,bi

M12.1 100% 93424 white surfaced white compound None Detected qu.bi.ca

M12.1 Vinyl Cove Base and Mastic/ 93425 BH-M12.1C black baseboard None Detected 100% gy,ma

M12.1 93425 None Detected C-2 tan mastic 100% gy,bi

M12.1 100% 93425 C-3 white surfaced white compound None Detected qu,bi,ca

#### Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235 AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

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ca - carbonate mi - mica fg - fiberglass ce - cellulose gy - gypsum ve - vermiculite mw - mineral wool br - brucite bi - binder ot - other wo - wollastonite ka - kaolin (clay)

or - organic pe - perlite ta - talc pa - palygorskite (clay) Approved Signatories: ma - matrix qu - quartz sy - synthetic

7

Tomas Vazquez Analyst

- Fire Damage significant fiber damage reported percentages reflect unaltered fibers
   Fire Damage no significant fiber damages effecting fibrous percentages
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C.T. Rem

Technical Manager Tanner Rasmussen Senior Analyst Julio Robles

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Crisp Analytical, L.L.C.

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CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

100% gy,ma

Approved Signatories:

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

None Detected

**Turnaround Time:** Date: 10/22/2025

3 Days Samples Rec'd: 10/20/25 10:30AM

Phone # 406-248-9161 10/15/2025 Date Of Sampling:

Fax# 406-248-9282 Purchase Order #:

Laboratory Analysts Physical Description of Sample # Com Layer Homo-Asbestos type / Non-asbestos Non-Sample ID ment Subsample geneo calibrated visual fiber type / fibrous us estimate percent percent type / (Y/N)percent

M12.2 Vinyl Cove Base and Mastic/ tan baseboard 93426 BH-M12.2A

M12.2 93426 A-2 tan mastic None Detected 100% gy,bi

M12.2 100% 93426 tan surfaced white compound None Detected qu,bi,ca

M12.2 Vinyl Cove Base and Mastic/

93427 BH-M12.2B tan baseboard None Detected 100% gy,ma

M12.2

93427 B-2 tan mastic None Detected 100% gy,bi

M12.2 100% 93427 tan surfaced white compound None Detected B-3 qu,bi,ca

M12.2 Vinyl Cove Base and Mastic/

93428 BH-M12.2C C-1 tan baseboard None Detected 100% gy,ma

> Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate mi - mica fg - fiberglass ce - cellulose gy - gypsum ve - vermiculite mw - mineral wool br - brucite bi - binder ot - other wo - wollastonite ka - kaolin (clay)

or - organic pe - perlite ta - talc pa - palygorskite (clay) ma - matrix qu - quartz sy - synthetic

Tomas Vazquez Analyst

Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
 Fire Damage no significant fiber damages effecting fibrous percentages

3. Actinolite in association with Vermiculite

4. Layer not analyzed - attached to previous positive layer and contamination is suspected

5. Not enough sample to analyze

C.T. Rem

Technical Manager Senior Analyst Tanner Rasmussen Julio Robles

6. Anthophyllite in association with Fibrous Talc

7. Contamination suspected from other building materials

8. Favorable scenario for water separation on vermiculite for possible analysis by another method

9. < 1% Result point counted positive

10. TEM analysis suggested

Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

3 Days Samples Rec'd: 10/20/25 10:30AM 10/15/2025

Phone # 406-248-9161 Date Of Sampling: Fax# 406-248-9282

Purchase Order #: Laboratory Analysts Physical Description of Sample # Com Layer Homo-Asbestos type / Non-asbestos

Non-Sample ID ment Subsample geneo calibrated visual fiber type / fibrous us estimate percent percent type / (Y/N)percent

M12.2 93428 C-2 tan mastic None Detected 100% gy,bi M12.2 100% 93428 C-3 tan surfaced white compound None Detected qu,bi,ca CMU Block and Mortar/ green M22.1 surfaced white finishing 100% 93429 BH-M22.1A compound None Detected n qu,bi,ca M22.1 93429 gray cement/mortar None Detected A-2 100% gu.ca CMU Block and Mortar/ green M22.1 surfaced white finishing 100% 93430 BH-M22.1B B-1 compound None Detected qu,bi,ca M22.1 93430 gray cement/mortar None Detected 100% qu,ca

> Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

CMU Block and Mortar/ green

M22.1 surfaced white finishing

C-1 compound

#### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

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ca - carbonate mi - mica fg - fiberglass ce - cellulose gy - gypsum ve - vermiculite mw - mineral wool br - brucite bi - binder ot - other wo - wollastonite ka - kaolin (clay)

or - organic pe - perlite ta - talc pa - palygorskite (clay) Approved Signatories: ma - matrix qu - quartz sy - synthetic

None Detected

93431

Tomas Vazquez Analyst

- Fire Damage significant fiber damage reported percentages reflect unaltered fibers
   Fire Damage no significant fiber damages effecting fibrous percentages

BH-M22.1C

- 3. Actinolite in association with Vermiculite
- 4. Layer not analyzed attached to previous positive layer and contamination is suspected
- 5. Not enough sample to analyze

C.T. Rem

Technical Manager Tanner Rasmussen Senior Analyst Julio Robles

100%

qu,bi,ca

- 6. Anthophyllite in association with Fibrous Talc
- 7. Contamination suspected from other building materials
- 8. Favorable scenario for water separation on vermiculite for possible analysis by another method
- 9. < 1% Result point counted positive
- 10. TEM analysis suggested

Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

Sample ID

93432

93433

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

3 Days

(Y/N)

n

n

n

Samples Rec'd: 10/20/25 10:30AM 10/15/2025 Date Of Sampling:

Phone # 406-248-9161

Fax# 406-248-9282 Laboratory Sample # Com

Analysts Physical Description of Layer ment Subsample

Purchase Order #: Homo-Asbestos type / geneo calibrated visual us

None Detected

None Detected

None Detected

None Detected

None Detected

None Detected

Non-asbestos fiber type / estimate percent percent

fibrous type / percent

100% qu,ca

100%

qu,bi,ca

80% qu,gy

100%

qu.bi.ca

80% qu,gy

100%

qu,bi,ca

Non-

M22.1 93431 C-2 gray cement/mortar

Textured Wallboard System/ S3.1A- green surfaced white 93432 BH-S3.1A compound

> S3.1Atan drywall with brown paper

S3.1B-

93433 BH-S3.1B

93434 BH-S3.1C

S3.1C-93434

tan drywall with brown paper Dallas NVLAP Lab Code 200349-0 TEM/PLM

Textured Wallboard System/ S3.1B- green and white surfaced white

tan drywall with brown paper

tan surfaced white compound

S3.1C- Textured Wallboard System/

None Detected TDSHS 30-0235

20% ce

20% ce

20% ce

80% qu,gy

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate gy - gypsum bi - binder or - organic

ma - matrix

compound

mi - mica ve - vermiculite ot - other

pe - perlite

qu - quartz

fg - fiberglass mw - mineral wool wo - wollastonite ta - talc

sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

Tomas Vazquez Analyst

- Fire Damage significant fiber damage reported percentages reflect unaltered fibers
   Fire Damage no significant fiber damages effecting fibrous percentages
- 3. Actinolite in association with Vermiculite
- 4. Layer not analyzed attached to previous positive layer and contamination is suspected
- 5. Not enough sample to analyze

C.T. Rem Technical Manager

Tanner Rasmussen

Senior Analyst Julio Robles

- 6. Anthophyllite in association with Fibrous Talc
- 7. Contamination suspected from other building materials
- 8. Favorable scenario for water separation on vermiculite for possible analysis by another method
- 9. < 1% Result point counted positive
- 10. TEM analysis suggested

Crisp Analytical, L.L.C.

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

10/15/2025

# Polarized Light Asbestiform Materials Characterization

**Customer Info: Customer Project:** CA Labs Project #: Attn: CAL25107836AS

Tetra Tech, Inc.

7100 Commercial Ave Suite 4 Billings, Montana 59101

117 - Barnard Hall RM 110/111

**Turnaround Time:** Date: 10/22/2025

Samples Rec'd: 10/20/25 10:30AM

Phone # 406-248-9161 Date Of Sampling:

Fax# 406-248-9282 Purchase Order #:

Laboratory Analysts Physical Description of Asbestos type / Sample # Com Layer Homo-Non-asbestos Non-Sample ID ment Subsample geneo calibrated visual fiber type / fibrous estimate percent percent type / us (Y/N)percent

3 Days

			(1/14)			регости
93435	BH-S5.1A	S5.1A- <b>Spray on Fireproofing</b> / white 1 fireproofing	у	None Detected	10% ce	90% qu,pe,ca
93436	BH-S5.1B	S5.1B- <b>Spray on Fireproofing</b> / white 1 fireproofing	у	None Detected	10% ce	90% qu,pe,ca
93437	BH-S5 1C	S5.1C- <b>Spray on Fireproofing</b> / white	V	None Detected	10% ce	90% gu pe ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TDSHS 30-0235

### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for

identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate gy - gypsum bi - binder or - organic

ma - matrix

mi - mica ve - vermiculite ot - other

pe - perlite

qu - quartz

fg - fiberglass mw - mineral wool wo - wollastonite ta - talc

sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

Tomas Vazquez Analyst

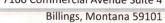
- Fire Damage significant fiber damage reported percentages reflect unaltered fibers
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C.T. Re-Technical Manager

Tanner Rasmussen

Senior Analyst Julio Robles

- 6. Anthophyllite in association with Fibrous Talc
- 7. Contamination suspected from other building materials
- 8. Favorable scenario for water separation on vermiculite for possible analysis by another method
- 9. < 1% Result point counted positive
- 10. TEM analysis suggested

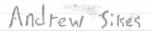


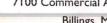
Phone: 406.248.9161 Fax 406.248.9282



CONTACT INFORM	IATION					CAC	25107836
COMPANY:	Tetra Tech, In	C.		Phone:	406.248.9161	0/0	
<b>Primary Contact</b>	Primary Contact Chanc Lawrence		Phone / Email:	chanc.lawrence@tetratech.com cell-(406)601-0936			
Additional Contact Roger W. Herman, Jr.			Phone / Email:	roger.herman@tetratech.com cell – 406.670.4844			
Sampler Name(s)	Chanc Lawren	ice		Sampler Signature	S vun Zeen,		
Date of Inspection:		10-15-25					
PROJECT INFORM	ATION	MOU		_			
Client		MSU		Project Name	Barnard Hall RM	1110/111	_
<b>Project Location</b>	****	Bozeman, MT		_Project Number	117-		
DI M INCEDITOR	10						
PLM INSTRUCTION	<u> 45</u>						
✓ PLM EPA 600/R-93/116	6 PLM CARB 4	435 (rock/soil) TEM	CHATFIELD	TEM NOB 198.4	EM CARB 435 (rock/soil)		
✓ PLM Point Count, PC 4	100 Points (All samp	oles greater than 0%, but le	ess than 1%)				
✓ Multi-Layered Sample	es:						
✓ Analyze and Rep	oort All Separable La	ayers per EPA 600	Only Analyze s	sepecifically noted layer			
✓ Analyze Until Positive	Stop by Material Ty	ype as Noted					
TURNAROUND TIM	1E						
		24 Hour 8 Hour	1 4 Hour	2 Hour			
Relinquished	d By	Date & Time	VIA	Received	By T	Date & Time	
Chanc Lawre	-	10-16-25 10:00	FEDEX			Dute a fille	-
Onano Lawre		10 10 20 10.00	TEDEX				10:30AM

OCT 2 0 2025





Phone: 406.248.9161 Fax 406.248.9282



# **CHAIN OF CUSTODY** -BULK ASBESTOS-

CALZS102836

**PROJECT INFORMATION** 

**Project Name** 

Barnard Hall RM 110/111

**Project Number 117-**

A B BH F 2.1		Sample Material Description	Material Location	Notes
		9-inch by 9-inch blue vinyl floor tile and associated tan mastic	Room 111 and 110	
А В О	BH F 2.2	9-inch by 9-inch tan vinyl floor tile and associated tan mastic	Room 111 and 110	
АВС	BH F 2.3	9-inch by 9-inch red vinyl floor tile and associated tan mastic	Room 111 and 110	
А В О	BH M 5.1	2-foot by 4-foot white pinholed fissured ceiling panels	Room 111 and 110	
A B C	BH M 12.1	4-inch black vinyl cove base and associated tan mastic	Room 111	
A B C	BH M 12.2	4-inch tan vinyl cove base and associated tan mastic	Room 110	
A B C	BH M 22.1	Green painted CMU block and gray mortar	Room 111	
A B C	BH S 3.1	Multicolored painted light orange peel textured wallboard system	Room 111 and 110	10:30AM
A B C	BH S 5.1	White spray on fireproofing associated with metal roof decking	Room 111 and 110	OCT 2 0 2025 Andrew Silver